

The Knowledge-Based Economy and Higher Education: Cases from the State of
Florida

Presented to:

Dr. George Burns

Faculty of Law, Business and Social Sciences

Department of Management

University of Glasgow

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Submitted by:

Vincent Daniels

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ABSTRACT

The initial purpose of this thesis is to begin an exploration into the level of support given by colleges and universities to high-skills lifelong learning in the field of business and management, referred to as executive and professional education (EPE). To properly define level of support several additional undertakings were necessary, including: discovering methods of valuing knowledge to a region, state or country, establishing why participants in EPE programs enroll in them, and developing a set of indicators that would determine the level of support in the higher education system. As the scope of this study in the United States is too great, the state of Florida was chosen as a specific case. Florida has a substantial network of both private and public (state) universities and colleges. The thesis concludes with recommendations for advancing the support of EPE in the state of Florida

As we move more strongly into the knowledge based economy, and as knowledge creation expands exponentially the need for a continued updating of knowledge and skills in the working community becomes evident.

To support this inquiry a set of research questions were developed, as follows:

- 1 *What are the components of relevant EPE?*
- 2 *What motivates participants to take part in EPE?*
- 3 *What is the level of support of the universities in the state of Florida for EPE?*
- 4 *Prepare recommendation based on the findings of the study for the state of Florida to improve support for EPE*

To address these questions three research methods were employed. Based on the previous experience of the researcher an exploratory case study was written exploring the intricacies of developing a successful EPE department. This exploratory case study served as a basis for developing a survey questionnaire, administered to participants in EPE to determine reasons for their participation. The case study, coupled with certain elements of the questionnaire led to the definition of a group of indicators with which to evaluate the level of support to EPE in a selected group of public and private universities in Florida. This final survey was conducted via the internet by website information of the various universities relative to EPE.

Through this research, components of EPE were identified, motivations of participants were ascertained and the level of support by universities was evaluated. The research led to the conclusion that state support of EPE is woefully lacking. Recommendations were developed and included.

While this thesis utilized a case, the state of Florida, the researcher believes that the findings and conclusions will be of value to practitioners involved in EPE, as well as to academics studying this area of business education. This research exercise has assisted the researcher in being more effective in managing and developing EPE within his own university. The researcher hopes that the outcome of this research will lead to a more organized approach to EPE in the state of Florida and beyond. As professions and skills are made obsolete in the knowledge economy the need for continued high level lifelong learning becomes increasingly important to the sustainability and viability of local, regional, state and national economies.

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DEDICATION

This thesis is dedicated to my sons, Jonathan and Sebastian. Sebastian is studying and working in northern Italy. Jonathan served in the United States Army in Iraq for fifteen months. His life ended tragically at nine o'clock in the morning on Sunday, March 16, 2008 near his base in Hawaii. Shortly before his death he wrote a poem with the refrain "Finish what you start!" This admonishment provided me with the motivation to work through my grief to complete this thesis. I dedicate this thesis to my boys.

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CHAPTER 1 - INTRODUCTION AND RESEARCH QUESTIONS

1.1 Introduction

The initial purpose of this thesis is to begin an exploration into the level of support given by colleges and universities to high-skills lifelong learning in the field of business and management, referred to as executive and professional education (EPE). To properly define level of support several additional undertakings were necessary, including: discovering methods of valuing knowledge to a region, state or country, establishing why participants in EPE programs enroll in them, and developing a set of indicators that would determine the level of support in the higher education system. As the scope of this study in the United States is too great, the state of Florida was chosen as a specific case. Florida has a substantial network of both private and public (state) universities and colleges. The thesis concludes with recommendations for advancing the support of EPE in the state of Florida

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To support this inquiry a set of research questions were developed, as follows:

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To address these questions three research methods were employed. Based on the previous experience of the researcher an exploratory case study was written exploring the intricacies of developing a successful EPE department. This exploratory case study served as a basis for developing a survey questionnaire, administered to participants in EPE to determine reasons for their participation. The case study, coupled with certain elements of the questionnaire led to the definition of a group of indicators with which to evaluate the level of support to EPE in a selected group of public and private universities in Florida. This final survey was conducted via the internet by website information of the various universities relative to EPE.

Through this research, components of EPE were identified, motivations of participants were ascertained and the level of support by universities was evaluated. The research led to the conclusion that state support of EPE is woefully lacking. Recommendations were developed and included.

While this thesis utilized a case, the state of Florida, the researcher believes that the findings and conclusions will be of value to practitioners involved in EPE, as well as to academics studying this area of business education. This research exercise has assisted the researcher in being more effective in managing and developing EPE within his own university. The researcher hopes that the outcome of this research will lead to a more organized approach to EPE in the state of Florida and beyond. As professions and skills are made obsolete in the knowledge economy the need for continued high level lifelong learning becomes increasingly important to the sustainability and viability of local, regional, state and national economies.

The federal system of government that is currently operating in the USA places the responsibility for providing education with the state authorities. Each state grants charters by which schools and universities may operate and confer degrees. The federal government influences the direction of universities primarily through indirect methods, including grants, financial aid and collaboration with university professors and leaders.

Because the individual states authorize the granting of degrees, it is not necessary for institutions to be accredited, but accreditation is seen as proof of legitimacy. In the United States, there are six regional accrediting organizations: Middle States Association of Colleges and Schools, New England Association of Colleges and Schools, North Central Association of Colleges and Schools, Northwest Association of Colleges and Schools, Southern Association of Colleges and Schools, and Western Association of Colleges and Schools. In addition to regional accreditation, there are various accrediting bodies for specific fields of study. In the United States, for example, the most respected accrediting body for business degrees is the Association to Advance Collegiate Schools of Business (AACSB); however, other accrediting bodies exist such as the International Assembly for Collegiate Business Education (IACBE). Virtually all fields of study have accrediting bodies. Academic degrees in chemistry, for example, are accredited by the American Chemical Society, and law degrees are accredited by the American Bar Association. All the accrediting agencies coordinate their efforts through the Council of Higher Education Accreditation, a private organization. In the United States, the federal government, through The Office of Post Secondary Education plays a negligible role in the accreditation of higher education (Standler, 2003).

The priorities that any state elects to define will generally reflect the aims of the governor or legislature in encouraging priorities such as economic growth (Sedore, 2003). In spite of the aims of the Governor, his influence over the Florida university system has traditionally been weak (Bowen, et al.). Until 2001 the Governor appointed a Board of Regents to oversee the state university system. In 2002 the Board of Regents was abandoned in favor of a Board of Governors and stronger local boards for each university in the state system. This reorganization was an attempt to distance politics from the governance of the system as much as possible, and to allow each university to respond more directly to the needs of its particular community. State universities in south Florida, as an example, may offer more programs targeted to the international aspects of business to support the large numbers of international offices in the area, while universities in the technology and manufacturing belt in the middle of the state (Vickers, 2007) may offer more programs directed towards quality control and lean manufacturing.

This disparity among regions is not unique to Florida. All the larger and richer states, such as New York, California and Texas, to mention only a few, have similar regional disparities. New York City is a world financial area (http://www.empire.state.ny.us/Regions_and_Counties/nyc.asp, 2009), while other parts of the state are rich in manufacturing industries (Abel & Dietz, 2008); California is “high tech” and entrepreneurial in the San Francisco Bay area (<http://www.sfcad.org/case-for-business/sectors-and-incentives/it-and-software>, 2009), while Los Angeles is a center of the world entertainment industry (<http://www.laedc.org/economicinformation/roadmaps/Entertainment.pdf>, 2009).

Within this context, the State of Florida has a range of university types and models (see below) that will enable the researcher to investigate the role of education in supporting a local knowledge based economy. In addition to this the researcher has knowledge of the system in Florida and so will be able to direct the research making use of personal knowledge.

Current economic thinking in developed western countries places knowledge led industries in the forefront of economic development (Gore, 1999). Taking this concept as a starting point, the thesis will seek to examine to what extent the presence of an active education system is required to support the growth of knowledge led economic development at state level. To evaluate the concept that education underpins the development of local knowledge led industries (Drucker, 1999; OECD, 1999; Wood, 2003), a target system is required. The characteristics of the system will require that it reflect a range of provision from high school to post-graduate; a range of private and state provision. Many states would satisfy these criteria. The researcher is most familiar with the Florida state provision and is satisfied that it meets these general criteria. In addition, it appears to have no clear policy relating to knowledge led economic development; therefore, Florida has been used as the system model for the research.

The purpose of this study is to assess the support of high-skills lifelong learning in the areas of business and management by the university system in the state of Florida of the United States of America. Lifelong learning is often called continuing education, and in the fields of business and management either executive or

professional education (EPE). In all cases lifelong learning in the high-skills area involves the transfer of knowledge.

This study will seek to more clearly define EPE and analyze the outcomes desired by participants in this type of lifelong learning. As the university is a primary repository of EPE knowledge, and has traditionally been a primary arbiter of knowledge transfer, this study will attempt to assess the support rendered by universities in the state of Florida to EPE.

1.2 Knowledge transfer and the role of the university

An evaluation of research in knowledge transfer is essential. An understanding of the history of studies into knowledge and its transfer serves as a starting point in understanding how knowledge has been transferred throughout history, and how this has changed in substantial ways up to the present. It is estimated that from the beginnings of the industrial revolution around 1750 through 1900 human knowledge doubled. In the first fifty years of the twentieth century human knowledge doubled again (Anderla, 1973). With the development of computers and communications knowledge is being added and being made more easily available at an accelerated rate (Huber, 1984).

1.3 Executive and professional education

The leadership and management roles of the future require additional and continually evolving skills and knowledge. EPE consists of two primary areas. One area covered by EPE is often referred to as “soft skills”. These are skills such as leadership and communication that are essential to success. With a constant

evolution of new jobs in the knowledge based economy (Kerka, 1993) leaders and professionals are required to be continually updating and refining these essential skills. Soft skill development is especially important to technical workers in areas such as engineering and project management (Nyman, 2006; Singh, 2005) because they have to be able to work within an organization and influence others at different levels.

While technical or functional area skills are acquired either at work or through formal training and education, soft skills or social behavioral skills must be learned through understanding and practice (Lewis, 2007). Functional skills may typically be acquired in a logical and systematic way, while management and interpersonal skills must be acquired through training, coaching and practice (Douglas, 2002; Singh, 2005).

While functional skills can be evaluated through standardized tests, leadership and management skills defy easy measurement (Nyman, 2006; Gandossy & Guarnieri, 2008; Muzio, Fisher, Thomas & Peters, 2007). There are several measurement methods which have been employed by organizations to measure leadership and soft skills. “Although the literature is clear on the need for these micro-social skill areas, it is substantially less clear regarding how they should be assessed or measured” (Muzio et al., 2007, p. 31). The measurements utilized thus far are based on subjective methodologies such as behavioral interviewing and self-assessment, therefore lacking consistency (Muzio et al., 2007).

The second area covered in EPE is the development and advancement of professional knowledge and skills in functional areas. This knowledge area emphasizes advanced learning in areas such as finance, management, business technology and marketing, to name a few. In ones career, new knowledge and technology are constantly expanding. What one learns in the university degree programs is outdated quickly and additional knowledge must be continually added in order to remain current and effective (OECD, 1999, p. 4).

This study will examine the history and development of EPE and the role of the university in this particular aspect of higher education. Critical to the understanding of EPE is knowledge of why people take part in this form of education. A survey was conducted to ascertain why participants take part in EPE, and an analysis of the survey results is included in this thesis.

1.4 Valuing knowledge

In 1776, Adam Smith published *The Wealth of Nations* and changed the way the value of a nation was determined. Incorporated into the valuation of a nation, later to become the Gross National Product, now known as Gross Domestic Product (GDP) were indicators of industrial inputs, throughputs and outputs. The developed world is now moving from the industrial era to the knowledge-based economy (Burton-Jones, 1999; Drucker, 1999). In view of this major shift the means for evaluating a nation, region or state, such as the state of Florida needs to be reconsidered. An updated range of indicators that can reflect the change in balance between manufacturing and knowledge values in company, region and state are required.

In order to understand how a university could contribute to the value of a state or region it is necessary to explore how value in a knowledge based economy might be measured. A university can contribute to the knowledge value of a particular measurement area. Measuring this contribution, especially in this relatively new arena of high-skills lifelong continuing learning, requires guidelines and criteria.

Estimating the contribution of a university to economic growth through their provision of Knowledge resources presents the same problem as estimating the value of the knowledge assets of a company. In the research to be reported the options for this are considered and critiqued. A set of options and guidelines is developed to enable at least a first order estimation. Some efforts are underway to determine the economic value brought to a region by universities, but they are focused primarily on the traditional degree granting and research functions of the university and not on EPE. Unavailability of sufficient pertinent data and lack of definition have rendered these efforts difficult to implement and inconclusive (Thanki, 1999).

1.5 Role of the university in developing and delivering EPE

In order to support a knowledge-based economy, educational resources at the high-skills level must be developed and made available (Brown, et al., 2001). Typically, universities support the creation and dissemination of knowledge through research and degree programs. As the pace of technology advances and communication accelerate, it becomes imperative that knowledge workers have a source of continual, lifelong learning (Brown et al., 2001; Kerka, 1993). The universities have

the knowledge repository in their faculty to take a major role on the delivery of high-skills education.

1.6 Objectives and Research questions

The objective of this study is to consider if the existence of the provision of educational resources supports a local knowledge led economy, and to assess the level of support to EPE in the state of Florida. As mentioned previously Florida offers a state model that is typical in its provision of educational resources and its economic aspiration to many other states. This research is designed to fill gaps in knowledge about education's role, and particularly the role of EPE in contributing to the knowledge value of a region. It also strives to provide new knowledge about the elements of EPE and the motivations of EPE participants, as well as the level of support for EPE in universities in the state of Florida.

1.6.1 Objectives and background

The State of Florida has no individual state income tax, a fact of interest to knowledge intensive industries which typically pay relatively high salaries, as well as to individual "virtual" knowledge workers who are not limited by their work location. Although individuals do not pay a state income tax, more is needed for Florida to lure high-skills jobs and industries, and to keep start-up companies in the state. The state must have the educational resources to provide high-skills workers to support these industries and to allow for continuing high-skills education (Brown, et al., 2001).

In the past thirty years, South Florida has become a center for trade and finance, acting as a crossroads between North America and Europe, and the countries of South and Central America and the Caribbean. With its geographical advantages as a crossroads of trade, and its position on several high speed data systems serving the hemisphere, Florida could become the regional hub for online higher education (Moore, 2003).

This thesis examines Florida as an entity, but recognizes various regions of Florida differ in population and industrial base. Manufacturing tends to be primarily located in the center of the state, stretching from Tampa in the west, along a corridor to Cape Canaveral in the east. International business is heavily centered in southeast Florida, anchored by ethnically diverse communities in Miami-Dade and Broward counties. Many parts of the state are very rural, or have a very large population base of retirees. These differences tend to be reflected in the provision that the local educational resources make available. The differences noted above are reflected in the choice of universities for the study from these various regions, particularly regions strong in commerce such as Miami, Orlando and Tampa.

The State of Florida has given support to diversify the economy and create high-skill jobs (ICUF, 2003). Recognizing the effects of a strong university system in developing a strong high-skills state economy, the Independent College and Universities of Florida believe that “Florida should enlist independent higher education to supercharge and diversify its economy” (ICUF, 2003, p. 1). A goal of the past governor of Florida, Jeb Bush, is to “expand the state’s economy beyond its

heavy reliance on its traditional industries – tourism, agricultural and real estate – and attract more higher-paying ‘knowledge-based’ jobs” (Sedore, 2003, p. 1).

Florida is also endowed with an extensive state university system of eleven colleges and universities, as well as a large number of private universities, some “for profit” and others either church-affiliated or non-affiliated “not for-profit”. This variety of approaches to higher education offers an opportunity to evaluate how different types of schools approach the need for continuing high-skills education. The state universities are part of a large, interconnected organization, while the private universities typically serve one regional market. The state university system would have capability to approach EPE on an organized statewide basis, while the private universities would more likely address the needs of the local constituency.

The work reported here will show how the researcher has sought to identify firstly, the contribution universities currently make to EPE and secondly an approach through the development of guidelines and criteria towards assessing a value for the contribution. Both these themes are central to the main research question i.e. the link between educational provision and economic development.

1.6.2 Research Questions

The objective of this research as stated in the research questions is to examine the existence of a link between the provision of appropriate educational resources and the support by the university systems of a local knowledge led economy. Within the context of the State of Florida as described previously the following questions require investigation:

- 1 What are the components of relevant EPE?*
- 2 What motivates participants to take part in EPE?*
- 3 What is the level of support of the universities in the state of Florida for EPE?*
- 4 Prepare recommendation based on the findings of the study for the state of Florida to improve support for EPE*

1.7 Summary

The work reported in this thesis seeks to identify key factors in the complex relationship that exists between education and economic development through analysis of existing provision. In addition, it attempts to set out guidelines and criteria from which policy issues regarding local knowledge based economic development can be developed.

This research study will offer insights and contributions to professional practice as well as academe for:

- a) practitioners and stakeholders who are involved in delivering EPE, through providing a better understanding of the motivation of people who undertake EPE programs
- b) policy makers at institution and state level, through analysing and reporting on how the provision of EPE is distributed across the state and a range of institution types thus encouraging policy makers to recognise what resources already exist and how these might be better deployed to achieve economic impact

c) academia through evidencing the types of courses that are provided and the link to demand which may differ across the state enabling planners to react to local need.

CHAPTER 2 – KNOWLEDGE CONCEPTS

2.1 Introduction

An understanding of the history of studies into knowledge and its transfer serves as a starting point in understanding how knowledge has been transferred in various times and situations, and how this has changed in substantial ways up to the present. This review of literature is divided into three chapters; Chapter 2 will examine the history of knowledge and knowledge transfer.

Chapter 3 of the review of the literature tackles the emerging area of study of how to value knowledge in a national or regional economy. To understand the value that a continuing EPE, delivered through universities and colleges requires an understanding of how knowledge is valued. Measuring, on a national or regional level, the efficacy of the implementation and development of an internal, knowledge-based economy is a new concept in economics (OECD, 1996). Since the 1930s, defining a Gross Domestic Product (GDP) based on determinable economic indicators has been advanced as a widely accepted practice. The concept of the GDP is based on an industrial economic model that coincided with the growth of an industrial economy and was launched through the writings of Professor Adam Smith of the University of Glasgow, the first to articulate that the wealth of a nation comprised more than the mere value of the land; wealth, he argued in *The Wealth of Nations*, was also based on industry and industrial output. Consequently, an entire system of measurement was developed utilizing, essentially, input- and output-based

“economic indicators” that primarily analyze investment and employment (input) and production and consumption (output). However, the developed world is shifting from an industrial to a knowledge-based economy, resulting in an increasing need for a new method of evaluating the wealth of a nation.

Chapter 4 examines the history of the university and its role in the delivery of EPE. While universities have been instrumental in the development and transfer of knowledge through research and the granting of degrees, the entry into lifelong learning and EPE is quite recent.

2.2 Oral Knowledge - An Early form of Knowledge Transmission

Some 10,000 years ago, the first socioeconomic “revolution” occurred when the hunter-gatherer human population evolved into one that practiced animal husbandry and agriculture, allowing for civilization to become more pacific and for communities to grow into cities where trade and peace could flourish (Wadley & Martin, 1993). The growth of trade, which resulted in an increased necessity for recorded transactions and standardized methods of accounting, precipitated the advent of written language (Durant, 1954). Formerly, knowledge had been transmitted familially or tribally—father to son, mother to daughter, elder to new potential leaders—and the primary method of transmitting knowledge was the story, an instrument for sharing values and ideas more than facts and information. Stories of forbears and forerunners were passed on through myths, fables and religious rites for a much longer time than formal histories have been recorded (Grant,1994). The oldest such story for which a written record exists is the Sumerian account of Gilgamesh. Dated at roughly 2,600 B.C., Gilgamesh, the Sumerian version of the

great flood, exemplifies the style in which knowledge was transmitted for the next two thousand years; it embeds information about society, geography, and history within an exciting morality tale (Kovacs, 1998). This oral and memory based tradition represents the earliest process of knowledge transfer. The validity of this process clearly depends on the collective memory of the social group and as such is open to interpretation that is it is not necessarily objective transmission. The oral tradition meant that local transmission of knowledge could be achieved but often, knowledge and information would travel only a short distance over the course of centuries. As an example, it is believed that papyrus was invented in Egypt circa 4000 BC. The production methods were coveted by the Egyptians and its use did not spread from Egypt until its use was challenged by the invention of paper some 4000 years later (Ryan, 1988).

2.2.1 Written forms of knowledge transmission

The invention of written language by the Sumerians in approximately 3100 BC , allowed for the depersonalization of knowledge (Anell & Wilson, 2002) and marks the beginning of humanities ability to communicate ideas in a written form. It may be considered that this represented a knowledge revolution of its time which has been followed by other similar advances in communication and associated social and economic changes. Today's electronic form of communication, mainly the internet, is the current technological peak of knowledge communication and allows access to written knowledge over the vast extent of the internet's connectivity.

Just as the account of Gilgamesh marks a crucial transition in the knowledge revolution from oral to written storytelling, the Babylonians in 2,100 BC embody

the second transition. Hammurabi was the first to pass on knowledge without using a story as the medium to do so. Instead, he transmitted morality through a written code of law, thereby providing the first example of knowledge being codified before being transmitted (Saggs, 1989). Hammurabi made explicit the knowledge of "good" and "bad" and "right" and "wrong," which for centuries had been tacitly transmitted through parables and stories.

2.3 The Philosophy of Knowledge

Ancient Greeks in the first millennium B.C. took the knowledge revolution to a third level by introducing philosophy, which is a methodological consideration of the composition and purpose of knowledge itself. The philosophers of that age and since have sought to address the question: What exactly is knowledge? Socrates (b. 469 BC), introduced hypothesis and discussion as new and progressive methods of disseminating knowledge as instruments of dissemination, used in conjunction with stories and “case studies” (Reader’s Encyclopedia, p. 913). It must be understood that these differ from the oral tradition described above because they were used as means of debating the value of knowledge and what its purpose might be. He believed that learning consists of being reminded of what we already know (Ibid). Other Greek thinkers, however, moved in a new direction. Plato (b. 427) believed that knowledge cannot be derived from sense experience, but can only be obtained by reason. He theorized that the body is actually an obstacle to knowledge, that only the soul or psyche could know (Reader’s Encyclopedia, p.770). Plato, therefore, was one of the first philosophers to distinguish between different kinds of knowledge—he implied that knowledge gained from sense experiences is inherently unlike and inferior to knowledge constructed by a mind. Aristotle (b. 384)

combined elements of his predecessors' philosophies in his own theory, offering a systematic classification of knowledge predicated upon the argument that knowledge is gained through logic and observation; on the other hand, he also believed that the only route to the intellect is through the senses (Reader's Encyclopedia, p.47).

Knowledge, Aristotle was the first to suggest, was a two-step process: initially, the senses must be used to make observations, and then the mind must make logical distinctions, comparisons, and ultimately arguments based on those observations (Durant, 1939).

These developments represent another dimension in human understanding of the processes of knowledge – an attempt to explain what constitutes knowledge and how we verify a claim to knowledge. In modern philosophy the basis for this is the study of epistemology.

2.4 Knowledge and Wealth

Although knowledge is now known to be a contributor to wealth, up until the present knowledge was not considered in calculating wealth, neither of a region nor a nation. Wealth was determined by different assets. From the time of the Greeks until the time of Napoleon, the developed countries of Europe employed a great majority of their populations in the agricultural industry (Drucker, 1994). Wealth, at both the national and personal levels, was measured in terms of land. Productive land was the capital of the time; even during the early federal United States, only landowners could exercise the right to vote.

2.4.1 Knowledge Wealth

The transition from hunter gatherer to a more agrarian society involved the development of skill related to farming and these skills were transmitted by the methods of the time, namely oral and practice. Such conditions held well into the middle ages when most of the population was employed in some form of agriculture. Other skills evolving in this period, such as stone carving, writing and harness-making, were passed on primarily through apprentices learning from the master or in modern terms experiential learning, and the craftsmen often actively hoarded their knowledge in order to retain a competitive edge, as cited earlier with Egyptian papyrus (Ryan, 1988).

As cities grew and developed, craft groups evolved, for example; masons, leather workers, etc. Members of the same craft found it beneficial to share good practice and knowledge giving a competitive edge to that craft. A significant development in this area was the formation of craft guilds. A guild had many responsibilities but high among these was the training of apprentices in the skill of the craft. The formation of guilds also enables the transmission of skills over distances and through generations. The guilds, in addition to teaching skills, also played the equally important role of managing quality within the crafts, prescribing and regulating standards (Andromeda, 1997).

2.4.2 Knowledge dissemination

The development of writing skills along with reasonable readily available paper encouraged the recording of knowledge in books and other forms of record. The

written material once collected was stored in central locations and so the library became a store of knowledge. Instrumental in the dissemination of knowledge, libraries began springing up in major cities and stimulating in turn the growth of universities as centers of learning and knowledge. Early medieval universities were basically guilds of learning that prepared young men to be teachers (Sutton, et al., 1900).

In the 15th century, Johannes Gutenberg utilized movable type printing to invent the mechanical printing press (http://en.wikipedia.org/wiki/Johannes_Gutenberg, 2008). The printing press represented a major development in recording and dissemination. Using this technique pages of books could be reproduced much faster than by hand and so many copies could be produced in the time it previously took to produce one. A new era in the spread of knowledge had commenced, contributing, by the mid-18th century, to the end of the millennia-long agricultural revolution and the beginning of the industrial revolution, which in turn contained the seeds of the future knowledge economy. The industrial revolution, which began 250 years ago in England, was, in retrospect, more of an evolution (Drucker, 1999). At the time, the majority of the population worked in agriculture and the second largest sector in domestic service (Drucker, 1994). The industrial revolution recruited most of its workers from the rolls of farmers and domestics (Drucker, 1994). In this sense, it was not much of a revolution, as it provided an alternative opportunity for most of these classes in the newly emerging industrial economy and cities based on industry. Furthermore, the need for agricultural workers declined as a result of the industrial-innovation-induced increase in productivity in agriculture due to the invention of the steam engine, allowing for steam power driven machines such as the steam tractor

(<http://www.history.rochester.edu/steam/lord/4-1.htm>, 2009). Along with the development of devices such as the mass-produced plowshare and the steam tractor came a decreased demand for intense human input (Weisdorf, 2006).

2.4.5 Entering the industrial age

The agricultural age did not submit easily. As late as 1900, over 50% of the population in the developed world worked in agriculture and animal husbandry. In the United States, fully 62% were still employed in this sector. Similar to England in the early 1800s, the second largest sector of employment was domestic service while only 10% of the population in the United States worked in industry and manufacturing (Drucker, 1994). Despite the statistics, we still call this the industrial era because of the impact on the economy—at the turn of the twentieth century, the value of a nation was largely defined by the productive strength of the industrial sector.

2.4.6 Innovation in the industrial age

As the history of industry demonstrates, especially in the move from the agricultural to the industrial world, there are two types of innovation. One is an innovation to produce new concepts and products, and the second is an innovation to apply these concepts and products in new ways. These two concepts are important in order to understand how EPE can assist an economy to grow in the knowledge era.

Universities have traditionally been involved in the development of new concepts through research. Research performed by universities has long been a contributor towards innovative ideas and products. Through technology transfer, these new discoveries can be transferred to practicing businesses or other sectors. By

remaining current in ones field, an innovator can take the research from the universities and develop new concepts or products that may be brought to market. The first type of innovation is not restricted to formal research as typically presented by a university. Many private laboratories and research groups contribute new findings also.

Once a new discovery has been made it must be made practical. This is the second phase of innovation. Most often, in today's economy "practical" interprets as "marketable". The applications of new concepts, the second part of innovation is typically in the hands of practitioner innovators. By staying current in business management and technology advances, for example, individuals and groups have developed new online services based on the researchers developing the concept of the Internet. EPE can present programs that will keep innovators on the cutting edge of their professions. In order innovate a new concept to be marketable an organization has to have available support of all the business functions. A new entrepreneurial venture will have need of experts in many functional areas of business such as finance, marketing, supply management and information technology. The new venture will need managers and leaders. The original innovators may not have expertise in these business areas, so the local economy has to be able to provide these business visionaries, leaders and managers. If the local economy cannot supply these much needed specialists, it will either have to import the talent or move the business operation to a locale that can supply the necessary support functions. EPE contributes to the continuing education of the managers and leaders who will fulfill these roles, making the local or state more prosperous through the addition of a new source of taxes and jobs.

So in the first type of innovation, researchers, developers, practitioners and inventors discover new production techniques and products—for example, more durable steel. Frequently, innovative products are developed under official auspices for military purposes. Once developed, though, the end product has other applications (i.e., what was used to make swords and armor works equally well in harvesting wheat), consequently allowing the innovator to apply the new methods and products to an industry he understands, much like Gutenberg with his printing press. The progress continues when the innovator joins with the developer to specifically design or modify products to fit his needs. Even during the transition from agricultural to industrial economy, the reduction in the numbers of people employed in agriculture decreased due to advances in knowledge. The two knowledge factors were at work. First, the industrial age introduced innovations that were applicable to farming. A mass produced steel plowshare is a simple example. New innovations in steel production were applied to farming and therefore reduced the number of people employed in farming while giving greater productivity to feed an ever-increasing population. The second factor deals more explicitly with knowledge. Farming became more scientific, so with the advances in fertilizer, insecticides and other non-industrial inventions, productivity grew at a previously unheard of rate, reducing the need for farmers and arable land.

2.5 Entering the information age

Clearly, then, even during the industrial era the use of knowledge was evident. Many knowledge workers were considered service workers: “By 1953, more than 50% of the American labor force was working in the service sector of the economy,

more than in farming and manufacturing combined” (Brown, 2002). Decades later, responding to both the knowledge gained from fighting two world wars and global political changes, the Cold War offered an opportunity for inventing basic computer systems to control the newly developed weapons (Fitzroy Dearborn, 1997). The movement of these innovations from the military-industrial complex to the private sector instigated the development of information technology. Initially, information technology was used to process data, but its uses quickly evolved into developing equipment and programs (word processors, spreadsheet programs) that allowed people to be more productive in their knowledge-based jobs. Continual enhancements in communication and digitization provided the beginnings of developing the Internet, the impact of which on knowledge sharing and access equaled that of the printing press in the scope and profundity of its applications. Access to a world of information and knowledge became available to all who had access to a suitable computer.

2.5.1 Changing perceptions of national wealth

With the advent of the new and growing strength of the knowledge-based economy it has been necessary to reconsider many assumptions about the nature of national wealth. One major shift is in the measurement of wealth. In the agricultural economy, wealth was measured in land ownership: European nobility was based primarily on land ownership which was passed down from generation to generation forming a noble lineage, and land served as the basis for determining the wealth of nations. Although land is still one important factor in determining wealth, the industrial era introduced the concept that wealth could also be measured in labor and capital, capital being investment in the means of production. Machinery, a product

of the industrial era, allowed agricultural production to increase constantly, and productivity, as measured in man-hour input, soared. Moving into the 21st century, “the economist’s traditional categorization into land, labor and capital has been superseded by knowledge as the prime resource” (Anell & Wilson, 2002; Steward, 1997). Thus, as the changing economic system has become better understood so it has been necessary to reconsider how wealth might be constructed.

As a result of the recognition that productivity is key, two major adjustments had to be made to the existing methods used to measure a nation's wealth. First, we began to gauge the Gross National Product, which acknowledges that the knowledge base of a country must be considered in order to ascertain true national wealth. In fact, some believe that the traditional categorization (wealth is determined by land, labor and capital) has been surpassed by knowledge as the prime resource (Anell, 2002). In the developed free-market countries today, less than five percent of the population is involved in agriculture (Drucker, 1994). A second adjustment in the knowledge-based economy is the value of education. Workers in an industrial-based economy require only a basic education and complete high school or trade school with enough preparation for the rest of their lives, with the possible exception of learning a particular function in a factory. The move to an information age requires higher skills, even for factory work, and the knowledge manager or professional requires higher levels of learning (Brown et al., 2001).

2.5.2 Data, information and knowledge

In recent years, largely as a result of the Internet, we have been inundated with a phenomenal growth of what is most easily and quickly referred to as “knowledge.”

Yet, there is a need to differentiate between information, data and knowledge. In “Knowledge Capitalism”, Alan Burton-Jones separates these elements as follows: “For the purpose of this book, therefore, data are defined as any signals which can be sent by an originator to a recipient – human or otherwise. Information is defined as data which are intelligible to the recipient. Finally, knowledge is defined as the cumulative stock of information and skills derived from the use of information by the recipient” (Burton-Jones, 1999, p. 5). Burton-Jones also makes the point that “knowledge acquisition (learning) and creation (invention, innovation) can only occur to any significant degree in the human brain.” (Burton-Jones, 1999, p. 6). But the brain knows more than it can consciously be aware of knowing, “we can know more than we can tell” (Polyani, 1966, p. 4). Much tacit knowledge is impossible to be made explicit. We may know how to do something, but are incapable of describing it in words or pictures. On the other hand, “Tacit knowledge comprises a range of conceptual and sensory information and images that can be brought to bear in an attempt to make sense of something” (Smith, 2003, p. 2).

2.5.3 Tacit and Explicit Knowledge

Another important distinction exists between what we know and what we know how to do. We can learn (acquire knowledge) in two ways: first, we learn when our senses receive input, as Aristotle theorized; second, we learn by doing, through the application of knowledge we already have, or, more intensely and indelibly, through the process of applying latent knowledge. Once knowledge has been applied through doing, and we have thoroughly internalized the use of the knowledge, it becomes a skill (Brown et al, 2001). Most skills are developed “on the job,” through experimentation, or under the tutelage of others. When analyzing the growth of

specialized certifications in today's world, it becomes clear that an important function of a certifying organization, in addition to certifying that a practitioner has the necessary competencies to meet a prescribed standard, is to transform or translate tacit knowledge into explicit knowledge. The transformation of tacit knowledge to explicit knowledge is also a process of distillation in which the most "relevant" knowledge and the "best practices" are translated into a "body of knowledge." A body of knowledge, then, is incomplete in that it does not represent a field or subject in its entirety but rather those elements of the field that have remained intact after the certifying agency has applied its process of distillation to the field. Nonetheless, codification of tacit knowledge is a major and irreversible step in the direction of explicit knowledge distribution.

According to Grant (cited in Chauvel and Despres 2000, p27), if knowledge exists in two principal forms, explicit and tacit, and at two major levels, the individual and the organization then there are significant benefits to the organization in shifting its primary knowledge base from individually held tacit knowledge to organization-wide explicit knowledge.

The critical difference between tacit and explicit knowledge relates to how easy or difficult it is to codify or express the knowledge in terms which enable it to be understood by a broad audience. If knowledge can be codified in this way then it can be made explicit and thus readily transferable (Burton-Jones, 2001).

2.5.4 Explicit knowledge critical to EPE

This transformation of tacit to explicit knowledge through the development of a relevant body of knowledge facilitates the teaching and learning process in EPE. It is often fiscally impossible to work one-on-one with every practitioner in a particular field in order to allow the participant to develop skills through experiential learning alone. By making tacit knowledge available in an explicit form the participant can learn and then apply, hence speeding the development of mastery of the field of study.

Nonaka (1994) proclaimed four modes of knowledge conversion. He argued the assumption that knowledge is created through conversion between tacit and explicit knowledge allows us to postulate four different modes of knowledge conversion:

- (1) *Socialization* - from tacit knowledge to tacit knowledge.

This is the mode of knowledge conversion that enables us to convert tacit knowledge through interaction between individuals. The key to acquiring tacit knowledge is experience. Socialization typically occurs in a traditional apprenticeship. It may also occur in informal social meetings outside of the workplace (Nonaka, Toyama, Konno, 2000).

- (2) *Combination* - from explicit knowledge to explicit knowledge.

This mode of knowledge conversion involves the use of social processes to combine different bodies of explicit knowledge through such exchange mechanisms such as meetings and telephone conversations. In the context of the firm explicit knowledge is collected from inside or outside the organization and then combined, edited or processed to form new knowledge. The new explicit knowledge is then disseminated among members of the organization (Nonaka, Toyama, Konno, 2000).

- (3) *Externalization* - from tacit knowledge to explicit knowledge.

This conversion is critical because it is a prerequisite to the knowledge amplification process wherein knowledge becomes part of an organization's knowledge network (Herschel, Nemati and Steiger, 2001). When tacit knowledge is made explicit, knowledge is crystallized, thus allowing it to be shared by others, and it becomes the basis of new knowledge (Nonaka, Toyama, Konno, 2000).

(4) *Internalization* - from explicit knowledge to tacit knowledge.

This mode is connected with theories of organizational culture. It is closely related to 'learning by doing' (Nonaka, Toyama, Konno, 2000). Explicit knowledge in the form of procedures and guidelines has to be actualized through action and practice. By reflecting on this explicit knowledge the reader can internalize the explicit knowledge to enrich their tacit knowledge base.

More relevant to EPE is a body of knowledge such as the Project Management Body of Knowledge developed by the Project Management Institute®. The Project Management Institute® codified a body of knowledge published as the *Project Management Body of Knowledge* (PMBOK). This codification takes many best practices, most of which were initially tacit and codifies the knowledge to make it available to a large audience. This is not to say that the PMBOK is the only approach to project management, as many other books have been written, but the PMBOK forms the basis for the examination to become certified as a Project Management Professional®, or PMP®. Only with such a codification can a program to develop project managers and prepare them for the certification exam be taught effectively through EPE.

Similarly, other professional certification organizations, which are nationally or internationally recognized, have developed programs or knowledge bodies which

serve as the basis for their certification examinations. Some of these are: the Society of Human Resource Managers[®] with the Professional in Human Resources (PHR[®]) and Senior Professional in Human Resources (SPHR[®]) certifications, the Institute of Supply Management with the Certified Purchasing Management (CPM[®]) certification, the Institute of Management Accountants with the Certified Management Accountant (CMA[®]); and numerous others.

2.6 Review

The relationship between knowledge availability and use and transmission processes at first sight seems an obvious requirement for the generation and use of skills and craft knowledge as well as the intellectual development of the understanding of what constitutes knowledge. It is clear from a historical perspective that humans on their own in isolated communities would have had great difficulty in transmitting knowledge. Technology, for example the wax tablets the Egyptians use to record on, and eventually paper were crucial in the dissemination of knowledge and so the growth of societies that used knowledge. Other technological developments the most significant of which might be regarded as the printing press enabled knowledge in the form of the printed word to become readily available. The Industrial revolution changed the economic basis upon which nations prospered from entirely land to land plus what the nation produced. An integral part of this revolution was the development and use of knowledge to give manufacturers the techniques necessary to increase productivity and value. The most recent stage of knowledge development and dissemination has resulted in a reassessment of what constitutes wealth. Companies which are efficient in the use of knowledge gain competitive advantage in the market place. A nation whose industry can effectively use knowledge will

therefore produce more wealth, and so at least in theory that nation should be better placed to support its population. Thus, the concept of the knowledge economy emerges in which knowledge workers are essential. Knowledge workers have a responsibility to maintain their skills at the required level. In this context it becomes relevant to consider how local education systems can assist and support not just local society but the individuals who form part of the local knowledge work force

CHAPTER 3 - EVALUATION INDICATORS FOR THE KNOWLEDGE-BASED ECONOMY

3.1 Introduction

Knowledge of itself is valuable but in order to have economic value it must be used and be able to increase the competitive advantage of the organization (Nonaka & Takeuchi, 1995). Universities by virtue of their role in generation, dissemination and validation of knowledge are able to make significant contributions to the knowledge and skills of local industry thus increasing the knowledge value of an area. In order to understand how a university could contribute to the value of a nation, state or region it is necessary to explore how value in a knowledge based economy might be measured. A university can contribute to the knowledge value of an area.

Measuring this contribution, especially in this relatively new arena of high-skills lifelong continuing learning requires guidelines and criteria. This thesis will explore recent research into this new aspect of university involvement in EPE. This component of this thesis is necessary to be able to evaluate the university's contribution in its totality, rather than to only one particular aspect of learning and the value it might create.

To understand the value that a continuing EPE, delivered through universities and colleges requires an understanding of how knowledge is valued. Measuring, on a national or regional level, the efficacy of the implementation and development of an internal, knowledge-based economy is a new concept in economics (OECD, 1996).

Since the 1930s, defining a Gross Domestic Product (GDP) based on determinable economic indicators has been advanced as a widely accepted practice. The concept of the GDP is based on an industrial economic model that coincided with the growth of an industrial economy. This concept was launched through the writings of Professor Adam Smith of the University of Glasgow, the first to articulate that the wealth of a nation comprised more than the mere value of the land; wealth, he argued in *The Wealth of Nations*, was also based on industry and industrial output. Consequently, an entire system of measurement was developed utilizing, essentially, input- and output-based “economic indicators” that primarily analyze investment and employment (input) and production and consumption (output). However, the developed world is shifting from an industrial to a knowledge-based economy, resulting in an increasing need for a new method of evaluating the wealth of a nation. Currently, the methods for measuring GDP, among other economic indicators, are specified by the United Nations System of National Accounts.

Being familiar with the new knowledge value indicators will allow us to understand how EPE can contribute to the value base of a state, region or country. These new indicators point up the values not only of technical or functional knowledge, but also the value of soft skills.

The universities will play an important role in defining the value of a region. This section will review the various ways that the university can affect value and particularly the role of EPE in this value matrix.

3.2 Measuring economic performance

The developed world is shifting from an industrial- to a knowledge-based economy, resulting in an increasing need for a new method of evaluating the wealth of a nation. Whereas the evaluation methods for an industrial economy take into account the use of knowledge as it relates to industrial output (R&D type investments), the evaluation methods for a knowledge economy must take into consideration that a great part of the wealth of a nation is embodied in its knowledge creation and use: “Traditional accounting and statistical reporting methods, both at the firm, and the national level, make it extremely difficult to test any claims based on knowledge or intangible assets” (Conceicao, Heitor & Oliveira, 1997, p. 1).

The United Nations specifically established the System of National Accounts in 1968 (SNA) to include categories such as production, consumption, income levels and distribution, and transactions. The SNA was updated in 1993 to reconcile the SNA more accurately with measurement methods utilized by other organizations such as Eurostat, the IMF, the OECD and the World Bank, as well as to correspond with methodologies used by individual countries. The revision was called for, in part, to account more consistently for financial and service transactions due to growth of these sectors since the original SNA in 1968. The revised SNA, however specifically excludes knowledge creation “such as scientific discoveries, inventions.” The United Nations sums up the SNA as follows:

GDP is a measure of production. The level of production is important because it largely determines how much a country can afford to consume and it also affects the level of employment. The consumption of goods and services, both individually and collectively, is one of the most important

factors influencing the welfare of a community, but it is only one of several factors. There are also others, such as epidemics, natural disasters or wars that can have major negative impacts on welfare, while others, such as scientific discoveries, inventions or simply good weather, may have significant positive impacts. These factors obviously do not enter into the measurement of GDP, which refers only to the flow of goods and services produced within a given period. Thus, movements of GDP on their own cannot be expected to be good indicators of changes in total welfare unless all the other factors influencing welfare happen to remain constant, which history shows is never the case. These points are elaborated further in this section because of common misunderstandings about GDP as an indicator of welfare. (United Nations, 1993)

3.2.1 Measuring a company's economic performance

Although the concept of investment in human capital through education and training was recognized as early as 1964 (Becker, 1964), the investigation of the value of knowledge content in a company only began in 1996 (Edvinsoon & Sullivan, 1996), when it was recognized that intellectual capital is the sum of that knowledge which resides in the human resources of the company as well as that which is incorporated in the company itself.

3.2.2 Knowledge value

Knowledge will, of course, continue to drive the industrial sector of countries, especially the high-level technology production sector, but will also, in many cases, have its own intrinsic value. Already, we take into account the knowledge factor when valuing companies' stock prices; otherwise, companies like Microsoft and Google would be valued only for assets. In knowledge-intensive service companies, such as accounting firms, banks, insurance companies and financial services firms, human knowledge and the knowledge inherent in human capital signify a significant portion of value. There are also suggestions that information and knowledge may yield increasing returns over time, whereas traditional resources typically yield decreasing returns (Bontis, Dragonetti, Jacobsen & Roos, 1999).

3.2.3 Economic activity indicators

The macroeconomic indicators used in establishing the wealth of a nation (i.e., the Gross Domestic Product) are based on hard data, such as currency, weight, and quantities, and are therefore fairly easy to accumulate and verify. Intricate systems of reporting have been established in all developed (and most under-developed) countries to deliver this data for analysis. A measurement of the knowledge base of a national, regional or state economy, though, will require a complete rethinking of the concept of inputs and outputs. According to David and Foray, knowledge communities, whether geographic or topical will be characterized by three components – “extensive knowledge creation and reproduction, mechanisms for exchanging and disseminating the resulting knowledge and an intensive use of the new information technologies” (David & Foray, 2001, p. 7). Within the United

States, and within states and metropolitan areas, then, a new method will also have to be developed to measure our new and growing knowledge-based economy.

3.2.4 Economic activity – knowledge indicators

To begin to develop a measurement methodology for the knowledge-based economy, we must first differentiate among and define the different types of knowledge involved, and how these may contribute to economic activity. According to the OECD 1996 report *The Knowledge Based Economy*, knowledge is divided into four areas. While information is considered to be knowledge it is seen to be at a lower level. Information is classified as “know-what” or “know-why.” Knowledge also falls into two categories: “know-how” and “know-who” (OECD, 1996; Polanyi, 1966).

An understanding of the various types of knowledge, as defined by the OECD for measurement purposes is important in this thesis. Only by understanding the types of knowledge can we ascertain which types may be transmitted through EPE.

3.2.5 Know-what

“Know-what” knowledge, the first category, includes knowledge of facts. An example of a fact is that the Norman invasion of the British Isles took place in 1066. Knowledge of vocabulary and grammar in a specific language fall into this category, as well. Knowledge of laws and rules of accounting also are classified as “know-what.” This type of knowledge is primarily explicit, easily compartmentalized and codified. Much of the knowledge dispensed in undergraduate programs at universities and colleges is this type of “know-what” knowledge.

Know-what knowledge lends itself well to learning in a classroom or online environment. Functional topic areas such as accounting, project management and marketing may be learned through EPE. Often basic topics are covered in an undergraduate setting, but more advanced topics such as treasury management or mergers and acquisitions may be successfully delivered through EPE.

3.2.6 Know-why

The “know-why” category of knowledge is best understood as the “why behind the what.” If something is a fact, why is it a fact? The scientific method was developed to serve as a guideline for discovering the “why behind the what,” and this method of discovery works well for some categories of knowledge. In these categories, scientists and researchers are key contributors to the wealth of an economy’s available “know-why” knowledge. In many cases, wealth is based on exploitation of knowledge derived from scientific enquiry. R&D investments are made, for example, to discover this type of knowledge. This category of knowledge, though, still frequently falls into the realm of information because most of it can be made explicit and then distributed. As an example, recent newscasts have reported that coffee consumption can offset the effects of alcohol in the development of cirrhosis of the liver. This is “know-what” information. Scientists will now inquire into why this happens. When this is discovered, it will become “know-why” information and will be written into research papers and distributed. While it will add to the database of “knowledge,” it will in fact be “information” that can be shared (Nonaka & Takeuchi, 1995; Meso & Smith, 2000; Quinn, Anderson & Finkelstein, 1996).

While the role of the university in developing know-why knowledge is traditional and obvious, a role for EPE in this process is not apparent.

3.2.7 Know-how

It is not until the third category, “know-how,” that we finally enter the realm where knowledge differs significantly from information. Here we are in the realm of skills, the ability to do something with the information we have, which is very often the jurisdiction of tacit knowledge, as described in the following paragraph. An example might be the development of the iPod by Apple. For many years, Sony led the mobile audio entertainment sector with its Walkman line—all products designed to capture audio on a magnetic media, such as tape or discs. Apple, in contrast, possessed experience with computers and, therefore, with hard disc drives. The skill and knowledge the engineers and researchers at Apple possessed—their “know-how”—allowed them to innovate and develop a new type of portable media apparatus utilizing hard disc concepts. Consequently, Apple developed an edge over Sony in the portable music industry.

Tacit knowledge may also be seen in the “soft skills” areas of conceptual topics such as leadership, sales and strategic thinking. The concepts of topics such as leadership and sales may be studied as “know-what” knowledge, but must be applied for the explicit knowledge to become tacit. EPE can successfully deliver this type of training by utilizing active learning where topics are taught and then applied in operational settings in the organization.

3.2.8 Tacit knowledge

“The process by which knowledge or information evolves and spreads through the economy involves changing its nature between tacit and codified forms.” (Cowan & Foray, 1997, p. 1). Michael Polanyi (1966, p. 4) in *The Tacit Dimension* states “we can know more than we can tell” in order to illustrate the concept that much more can be known intrinsically than can be converted into explicit information of data. Throughout history, tacit knowledge has been passed from mentor to protégé without the benefit of converting the knowledge into a codified format. Tacit knowledge is much more difficult to codify than information, but progress continues in this area. As an example, the author will later examine the growth of professional certification programs which, by blending information with knowledge, teach codified versions of “know-how.”

3.2.9 Know-who

Last, the OECD report addresses the concept of “know-who,” introducing the connection between social skills and knowledge. One person in an organization cannot contain all of the information and knowledge needed to function effectively, and, even if he or she could contain it, he wouldn’t necessarily know what to do with all of it. Knowledge resides throughout an organization, in the heads and hands of many people, and may under certain circumstances even be extra-organizational. “Know-who” is required in order to share knowledge, and, even more importantly, innovation and creativity can result when people with different knowledge, skills, and experiences collaborate in developing new ideas.

The success of “know-who” depends significantly upon “soft skills,” such as persuasion, negotiation, communication, and attitude. Employers recognized the importance of soft skills in exploiting “know-who” knowledge in a study conducted under the auspices of the American Education Research Association from 1994 to 1997. Employers were asked, “After you have established your applicant pool and obtained information about potential (job title) employees, what characteristics or attributes are most critical in making your hiring decision?” The responses are as follows:

Responses, on a scale of 1 to 5, where 1 = not at all important and 5 = essential, were averaged.

Figure 3.1

Employers’ Rating of the Importance of Various Applicant Characteristics for Making Hiring Decisions: 1997 Applicant Characteristic Average Score

Attitude	4.60
Communication Skills	4.07
Previous Job Performance	4.04
Full-Time Work Experience	3.75
Industry Based Credentials	3.18
Education Level	2.89
After-school or Summer Work	2.62
Technical Course Work	2.52
Academic Performance	2.47
Extracurricular Activities	2.31

General Course Work	2.30
School Reputation	2.00

Source: Daniel Shapiro and Margaret Goertz, “Connecting Work and School: Findings from the 1997 National Employer Survey,” Unpublished paper presented at the annual meeting of the American Educational Research Association, San Diego, California, April 15, 1998

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It is evident from the Table 3.1 that employer’s value soft, or social, skills above knowledge alone. Social characteristics such as “Applicant’s attitude” and “Applicant’s communications skills,” elements of “know-who” capabilities, are ranked above knowledge-based characteristics such as “Industry based credentials” and “Academic performance.” Interestingly, “Industry based credentials” were ranked higher than academic achievement. The importance of industry based credentials will be discussed later in greater detail. The authors summarized that “the great majority of employers reported paying little attention to measures of in-school performance to differentiate between applicants,” pointing to a “disconnect between work and schooling.”

Traditional degree education curriculum is built around topics that can easily be taught, subjects strong on explicit knowledge where a body of knowledge already exists. On the other hand, long-term success is based more on soft skills than technical competencies. Fortunately, soft skills can be taught and mastered (Douglas, 2002), albeit through a different learning paradigm including acquiring knowledge and applying the skills in a work environment.

The know-who area of knowledge is one in which EPE may excel. Such training as presentation, negotiating, communication and conflict resolution are generally not taught in degree oriented programs, and yet they are essential to success in today's organizations. While technical knowledge is stressed when hiring for positions in information systems, 75% of success on the job is dependent on soft skills (Litecky, Arnett & Prabhakar, 2004)

3.3 Knowledge sharing

Since the publication of the OECD report in 1996, much has changed in the areas of knowledge-management and sharing, mostly because access to information and knowledge has grown exponentially. The Internet, for example, provides abundant access to information and knowledge—if you know where to look. A fifth kind of knowledge has consequently increased in importance: “know-where” knowledge, which encompasses not only the location of specialized knowledge and information, but also the number of sites available to distribute it. Some might argue that “know-where” knowledge could be broadly classified under “know-how” because “know-where” could certainly be interpreted as a skill; the same is true, however, of “know-who,” the area of knowledge that encompasses the soft skills. In our rapidly changing and globalized world, where information and knowledge are increasingly more available, “know-where” knowledge is crucial enough to be considered a distinct element of knowledge (Norris, Mason, Robson, Lefere & Collier, 2003).

3.3.1 Effect of the Internet on knowledge sharing

The Internet was originally conceived as a tool for researchers. Little could they imagine the future impact of this medium on research and learning. The number of sites containing information and knowledge and the opportunity to learn has increased exponentially over the past decade. There are currently over a billion Internet users, up 182% since 2000. The number of active Internet domains has grown from around 100 million in 2000 to over 350 million in 2005. The demise of the dot-com bubble did little to slow down the growing availability of information websites, search engines and companies doing business online. While recent information is certainly and thoroughly available due to the posting of current information on websites, the inclusion of “old” information, perhaps more than 10 years old is also rapidly being added and greatly expanding the quantity of information available. As an example, a Google search of my name brings up not only recent information about me, but also updated information about my father who died long before the Internet was in use (Green, 2003). Furthermore, older scholarly and newspaper articles are continually being added to online archives. The New York Times has articles archived and available online dating from 1851. A search for the word “management” on ABI/INFORM archives delivers a list of journal articles dating back to 1916.

3.3.2 Know-where important in utilizing the Internet

Before the Internet, most people went to the library to do research, frequently with the help of a research librarian—the “know-where” person. Currently, much research can be conducted from the office or home with the use of a computer and

the World Wide Web for utilizing on-line databases of peer-reviewed journals. Google Scholar, for instance, is an excellent tool for finding and identifying sources of a wide array of peer reviewed and other scholarly articles. However, the “know-where” challenge still prevails. Whether a person is seeking up-to-date statistics, scholarly articles, or step-by-step driving directions, he or she will inevitably turn to the web; the challenge is in figuring out exactly where in cyberspace the information lies. To be effective in mastering the information and knowledge on the web, “know-where” is clearly a much-needed skill.

3.4 Knowledge wealth

Knowing what comprises knowledge is the first step in evaluating the wealth of a nation in terms of knowledge. However, while it is crucial to develop methods of evaluating the knowledge base of a nation and to equate that knowledge base to some kind of value, probably in dollars, pounds sterling or euros, it does not necessarily follow that the entire wealth of a nation can be measured in knowledge. Just as the value of a company is a mix of asset values with intangible factors, sometimes called “good will,” which are in turn a blending of components such as brand equity and the company’s knowledge base, the wealth of a nation is a combination of certain intangible elements and a productive base. Although we do possess the ability to measure and value production, the intellectual capital elements enjoyed by a country are more difficult to define and thus have been largely ignored. According to the OECD, “knowledge is extremely heterogeneous in nature, and its value is not intrinsic but depends on its relationship to the user, so it cannot be quantified in the same terms as physical objects such as land or industrial capital”

(OECD, 1999, p. 1). While a nation may have other components of its “good will,” certainly a major component is the knowledge base of a country.

A number of problems arise when developing a system or formula for evaluating the level of knowledge value for a nation or as a region or state, such as Florida. One cannot develop a formula without first codifying knowledge, but one cannot codify knowledge without first having a formula, and therein lies the contradiction.

“Scientific, explicit, declarative and theoretical knowledge is relatively easy to measure; personal know-how, tacit and practical knowledge less so” (OECD, 1999, p. 2). According to the OECD report, the first and most basic dilemma to resolve is that the knowledge component is in fact part of the formula for determining the productive value. The development of the personal computer and the advent of word processing programs changed the face of employment and production in the developed world. The industrial formula will note that employment for certain categories of skilled workers, such as secretaries, has declined and that typewriter production has declined greatly, but the industrial formula does not credit the insertion of the various types of knowledge into the productive system that made this change. Because of the dramatic changes of the last three decades, the employment base of a large sector of the economies of the productive world has undergone a revolution of its own. One job title of “secretary” has become almost extinct. Thousands of new job descriptions have been introduced instead, most of them at the high skills level and these higher knowledge level jobs will require both retraining and lifelong learning as outdated jobs and skills are replaced with new positions requiring higher skills. In Europe, it is estimated that 10% of all jobs disappear every year and are replaced with jobs requiring new skills, usually at a

higher level (Brown, et al., 2001, p. 15). Education has changed to accommodate these changes to the environment of the new economy, but the production formulae continue to look at the inputs in terms of labor and measurable components and at the outputs as quantifiable dollars, units and tons. Productivity is up, but no measurements have been taken to account for the value added by the new knowledge, in all the categories listed above, that have contributed to increased productivity.

The wealth of a region or city lies not only in its ability to produce, but also in its ability to innovate, which requires knowledge and creativity (Gurteen, 1998; Amabile, et al., 1996). Creativity, a combination of knowledge (gained through education and experience) coupled with the human element of intelligence, is not easily measured. There are many difficulties to be faced in trying to devise a formula to determine the value of knowledge in our productive system. It is impossible to know when new knowledge is developed how valuable it will be—some new knowledge might turn out to be of no value, while some may change the world. Lending even more complexity is the problem of potential: some new knowledge may have the potential to effect major changes, but if its potential fails to be realized in an appropriate context, then the new knowledge is relatively useless. For example, a very successful entrepreneur, Howard Leonhardt, founded World Medical Manufacturing Corporation, a medical technology company that initially produced cardiovascular balloon catheters and later progressed into development of other products including stent grafts for aortic aneurysm repair. However, Leonhardt did not create the initial knowledge involved with his innovation; it was created by a researcher, Syde Taheri. The entrepreneur, who possessed no

background in biotechnology, found the research ten years after it had been produced and saw possibilities in it, ultimately developing the potential of knowledge that had for ten years been valueless. In 1998, Howard Leonhardt sold his 12-year-old medical device company for \$62 million. (Leonhardt, Presentation to a class at Florida International University in 2003) As this example illustrates, we cannot yet define knowledge inputs in terms of measurable units, and we typically have no visible and direct link of the knowledge input to an output, which may or may not be in productive capacity. The components of creativity and innovation, meanwhile, are essentially ineffable.

Next, the OECD explains that inputs into knowledge creation are difficult to track because there are no knowledge accounts analogous to the traditional national accounts. Because knowledge is intangible, we cannot keep track of it in traditional ways, such as counting hours of labor or tons of raw materials. We must develop other measurements of input, or use information in different ways, and these inputs must be accounted for on a national basis.

The third problem the OECD report identifies is that knowledge lacks a systematic price system. A price system would serve as a basis for aggregating unique pieces of knowledge. Measurement of intangible assets such as knowledge is difficult (Bontis, 2001). We must measure these pieces of knowledge in something other than dollars.

Bontis, et al. (1999), identified four types of valuation used in the corporate environment which may be applicable to valuing the national knowledge resource,

although much additional research will be required in this area. The first method is Human Resource Accounting (HRA): “according to Sackmann, Flamholtz and Bullen (1989, p. 235) the objective of HRA is to ‘quantify the economic value of people in the organization’ in order to provide input for managerial and financial decisions.” (Bontis, et al., 1999, p. 3) The HRA model modifies typical accounting methods specifically that of expensing wages. A portion of wages is captured as an asset on the balance sheet. This line item recaptures a portion of wages paid-out as an asset. The portion involved is based on a formula involving average tenure and average wage increases, and this asset represents the firm’s human capital.

Experiments with the HRA methodology have not met with success because the model incorporates many assumptions that are not easily substantiated.

Assumptions about tenure per employee, turnover and probable salary increases are all educated guesses at best (Bontis, et al., 1999). Also, management has neither sufficient knowledge of human resource costs and values, nor knowledge of models which might be used or developed to calculate costs, values and incomes to properly implement HRA (Johanson, 1999).

A second method of measuring the knowledge value of a corporation is Economic Value Added TM or EVA [®], a methodology developed by Stern Stewart & Co., a consulting firm in New York. EVA [®] is a comprehensive measurement tool used by many companies, and it encompasses much more than knowledge measurement. EVA [®] attempts to incorporate numerous business functions such as financial planning, capital budgeting and performance measurement to determine all ways in which corporate value may be added or lost in a model developed by Stern Stewart & Co.

A third measurement tool, which may be used in knowledge valuation, is the Balanced Scorecard (BSC). The BSC incorporates a mix of measurements that look at financial aspects, customer viewpoint, business processes and, learning and growth. The learning and growth measurement looks at employees and systems within the corporation and measures learning and knowledge diffusion. The BSC is not, however, a tool for measuring the knowledge value of the firm specifically. In fact the human resource is not forethought within the system, but more of an afterthought (Bontis, et al., 1999). The BSC is not only a measurement system, but also a strategic business management planning system (Kaplan & Norton, 1996). The BSC has inherent potential problems, as it relies on a cause and effect relationship within the measurement mix (Norreklit, 2000). Norreklit (2003) argues that cause and effect does not exist between some areas of measurement of the BSC. For example, "Profitability derived from customer satisfaction or customer loyalty is neither a necessary outcome nor a highly probable one." (p. 617) Concepts such as interactive employee empowerment and organizational learning are included in the concept of a balanced scorecard, but the measurement of these concepts is primarily subjective, and influenced by the management of the organization (Norreklit, 2003).

3.4.1 Intellectual capital: human, structural and client capital

Intellectual Capital (IC) is a measurement of all intangible resources, including knowledge. Klein (1998, p. 1) defines IC as "knowledge, experiences, expertise, and associated soft assets, rather than their hard physical and financial capital". In this era of the knowledge-based economy, IC becomes a most valuable asset in an organizations overall value and competitive advantage (Moon & Kym, 2006).

IC includes human and structural capital, both of which have knowledge components. When an organization captures knowledge and then codifies it, converting the knowledge from tacit to explicit, making the knowledge easily transferable, this knowledge is considered to be structural capital of the organization (Stewart, 1997). The structural capital can include many assets which have knowledge built into them, such as: processes; relationships that the organization has with other entities such as customers, suppliers and governments; and renewal and development planning and projects (Bontis, 2001, Sveiby, 1997). Stewart (1997) also defines client capital of an organization as part of intellectual capital of an organization. Client capital is gained from the relationship between the organization and third parties such as clients and suppliers. The human and structural capital of these third parties can add to the intellectual capital of the organization. "Learning occurs through reciprocal exchange of knowledge between firms and through the process of socialization and the development of a social capital. This framework also depicts the roll of social capital in enhancing interfirm performance" (Chakravorti, S., Daniels, V., & Lassar, W., 2003, p. 200). In this way the knowledge of a company like Intel can be tapped by a client company such as IBM.

3.4.2 Human capital

The human capital portion of IC consists of the intangible resources of the members of the organization. This includes: competencies (skills and know-how); attitude; creativity, capability for innovation, and intellectual agility. While recognition of IC is of great value to an organization, assigning consistent metrics to the components of IC is nearly impossible, to the chagrin of accountants and financial analysts.

Traditional accounting becomes inadequate when a firm's value is primarily in intangible assets. The market value of knowledge intensive companies can far exceed the value placed on tangible assets listed in a financial statement. In the 1990s Cerent Corp. was purchased by Cisco Systems, Inc. for \$6.9 billion, even though Cerent had only \$10 in sales in the preceding six months. The value of the company was based on IC, rather than on meager physical assets (Finchman & Roslender, 2003). Traditional accounting and reporting systems are becoming less relevant as they do not provide executives with information necessary for managing intellectual capital and knowledge intensive processes (Bornemann & Leitner, 2002).

While these four measurement methods may one day prove valuable in measuring the knowledge base of an economy, they also present more than one complex problem. One complication, for instance, is that corporations have a truer valuation reflected in the stock of the company, thereby carry greater weight than the preceding analytical tools. Also, inventories of human and tangible resources are difficult to recognize, itemize and value as the previous discussion illustrates. Finally, although these methods assist in measuring knowledge in a company, they are still very limited in actually assigning a value to this knowledge (Bontis et al, 1999).

As an example of market value differing greatly from the book value of a company, on September 20, 2005 the following companies had market values (Market Cap) significantly different from their book value:

Table 3.1

Company valuation comparison

Company	Revenues	Employees	Book Value	Market Cap
General Motors	\$205 B	335,000	\$27.4 B	\$17.8 B
Oracle	\$15.2 B	65,126	\$6.6 B	\$84.6 B
Citrix	\$1.0 B	3,171	\$1.0 B	\$6.3 B

General Motors is a very large industrial company with high capitalization and labor count. While its revenues are high at \$205 billion, it is valued by the market at less than its book value, which is calculated at assets minus liabilities. Oracle and Citrix, on the other hand are knowledge intensive companies with relatively low book values and employee count. Their market values are significantly higher than their book value. Oracle, with lower revenues than General Motors and a book value of roughly one-quarter than that of General Motors has a market valuation of over five times that of General Motors. The market is valuing these companies based on numerous assumptions. A large component of the superior valuation is based on the knowledge value of the company and what this can mean to future success.

The 1999 OECD report acknowledges that new knowledge creation does not necessarily add to the stock of knowledge, and obsolescence of units of knowledge is not recorded.

3.4.3 Knowledge indicators

The means for measuring the performance of a knowledge-based economy are in their infancy: “There are many potential measures available, but at this stage there is considerable disagreement as to what should and can be accurately measured”

(Wood, 2003, p. 148). According to Wood, measures presented thus far to profile the value of a knowledge-based economy may be grouped into two major classes:

(1) Composite or macro measures of investment in knowledge capability, including:

- national investment in knowledge
- national investment in knowledge in relation to national investment in fixed assets.

(2) Specific or micro measures of knowledge inputs and outputs, including:

- national expenditure on education
- knowledge diffusion measures
- knowledge network measures
- human capital indicators
- national research and development expenditure.

While these measures are utilized on a national basis, they can also be applied at a more local level such as a state (US) or a metropolitan area.

The OECD has attempted to propose a number of new indicators to include in a formula for evaluating knowledge value. The proposed indicators should address:

- 1 measuring knowledge inputs
- 2 measuring knowledge stocks and flows

- 3 measuring knowledge outputs
- 4 measuring knowledge networks
- 5 measuring knowledge and learning

3.4.4 Measuring Knowledge Inputs

Standardized knowledge input measurements, already collected by the OECD, are basically holdovers from the industrial economic indicator arsenal. The existing indicators are:

- 1 Research and development (R&D) expenditures
- 2 Engineers and technical personnel employment figures
- 3 International balance of payments in technology

However, it is unlikely that these indicators will be sufficient in evaluating the knowledge component of the true wealth of a nation. Although these indicators, as collected and issued by the OECD, are valuable in determining the wealth of a national knowledge base, and although they have been improved in recent years, they still fall short of measuring the knowledge inputs required for assessing the wealth of a knowledge economy. The measurement indicators have weaknesses as outlined above, and, according to Wood, further research is needed to identify and value knowledge: “These benchmark measures have many weaknesses and a research agenda should focus on not only reporting these measures but also identifying new measures to monitor the performance of KBEs” (Wood, 2003, p. 148).

For instance, the R&D indicators issued by the OECD are based on R&D expenditures, which only take into account investments made by the public sector,

academia, and large manufacturing. In the knowledge-based component of the economy, though, much of the investments in R&D are not made by the segments for which data are collected and analyzed. A vast and continuously increasing investment in knowledge economy R&D is thus overlooked unless the R&D indicator also considers the knowledge economy's highly skilled and educated workers and the opportunities available for informal interchange of ideas and information, and the same analysis can be applied to investments in R&D by service-sector enterprises and small- to medium-sized firms.

In measuring the knowledge value of a state or metropolitan economy, the first two metrics can also be utilized. It is eminently possible, and often policy, to track R&D expenditures and high technology employment figures by states and cities. These measures will provide a competitive overview of knowledge inputs in a local economy, especially for comparison purposes with other similar entities.

3.4.5 Measuring knowledge flows

Measuring portions of the flow of technology is reflected in the technology balance of payments. This indicator measures movement of technological knowledge, such as examining licensing fees and other direct knowledge transactions, but it is incomplete because it does not take into account all transfers; the indicator would exclude, for example, intra-firm transactions, consulting services, and foreign direct investment.

In Australia: An Under Performing Knowledge Nation, Jack Wood (2003, p. 153) labels knowledge flows as “knowledge diffusion.” He includes three measurement components:

- knowledge embodied within new technology inputs and encased within new machinery or equipment
- disembodied diffusion of knowledge conveyed through technical expertise and technology, or
- diffusion of knowledge via information and communication technologies.

Another aspect of knowledge diffusion relates to immigration patterns of highly skilled people. The United States has been a recipient of this migration, importing engineering and scientific skills from all over the world. This migration also works in reverse: as economies such as China and India grow, migrants to the United States could bring knowledge back to their countries of origin either by returning home with the new knowledge they have gained, or by acting as liaisons between enterprises in the United States and similar entities in their homelands. Despite our promising start gathering pertinent information on the input and flow of knowledge, much more data should be defined, collected and studied in order to give a more complete picture of the true values involved. While transactions in the industrial and agricultural sectors usually involve monetary transactions for goods and services, knowledge flows frequently do not include exchange of money. Transactions that involve money provide easily traceable, quantifiable data. Flows of knowledge have no such easily identifiable methods of tracing value flows.

3.4.6 Measuring knowledge outputs

Knowledge outputs, which refer to the effects of new knowledge developed through innovation and R&D, are comprised of two main components. The first component is the immediate and direct output of a particular kind of knowledge—for example, a new device used in the aeronautics industry for fighter jets as a result of the most up-to-date aeronautical research. The immediate output may be measurable as a certain number of units produced at a certain value. The second component is indirect, not necessarily immediate, and affects society at large, in a way that might even be more significant than that of the direct output: a new technology in the aeronautics industry, for example, may also find applications in the communications or entertainment industries and therefore increase jobs and provide additional benefits.

These knowledge outputs as a measurement of national wealth are also applicable to states and cities. An example would be the NASA Space Center at Cape Kennedy, Florida. Research conducted by and for the space center has spawned many innovative companies in the area of the Cape. “The ability to move a new technology from the development laboratory into general use in industry is the ultimate test of the applicability of scientific development,” according to Zelkowitz (1994, p. 3). He quotes Daniel Goldin, NASA Administrator in 1992, who stated, ““Technology transfer is a fundamental mission [of NASA]. It is as important as any NASA mission and it must be pursued” (Zelkowitz, 1994, p. 3)

3.4.7 Knowledge output sources

Additionally, knowledge outputs typically originate in certain cutting-edge industries whose employees would be considered high-knowledge workers. The OECD (OECD, Directorate of Science Technology and Industry (DSTI), Structural Analysis (STAN) database) identifies such high-technology industries as aerospace, computers and office machinery, electronics-communications, and pharmaceuticals. The OECD ranking is based on direct and indirect R&D intensity, as well as on embodied technology in the production outputs. The medium-high technology group included scientific instruments, electronic machinery, motor vehicles, chemicals and non-electric machinery. The AEA (formerly the American Electronics Association) defines the high-technology industry primarily in terms of electronics and software, based on 45 Standard Industrial Classification (SIC) codes in the areas of “high-tech manufacturing, communications services, and software and computer-related services.”

(http://www.aeanet.org/Publications/IDMK_definition.asp)

Similarly, the city of Lancashire, UK notes on its webpage

(<http://www.lancashire.gov.uk/environment/lancashireprofile/monitors/techind.asp>,

2006) that:

“There is no accepted and single definition of what is meant by high technology industry but the term is generally applied to those scientific fields and the industries based on them where there is a fast rate of innovation leading to the rapid introduction of new products and processes. One working definition of high technology used by the ONS in terms of the Standard Industrial Classification (SIC, 2003) codes is derived from the OECD. (1997). It is based on the research and development intensity of

industry in relation to turnover, supported by indicators of the proportion of scientists, engineers and technicians employed. The definition is in two parts covering so-called 'high tech' and 'medium high tech' and encompasses those sectors shown in Table 1" (Table 3.2).

Table 3.2

Definition of High Technology Industry Sector - SIC 2003

(1) High Tech Industries

Pharmaceuticals	24.4
Office Machinery & Computers	30.0
Electronics-Communications Equipment	32.0
Aerospace	35.3

(2) Medium High Tech Industries

Chemicals	24.0 (excluding 24.4)
Non-Electrical Machinery	29.0
Electrical Machinery	31.0
Scientific Instruments	33.0
Motor Vehicles	34.0
Other Transport Equipment	35.2, 35.4, 35.5

The number following the category indicates the SIC reference number for the particular category. Certainly, each of the above categories falls under the heading of “goods.” The “services” sector, which accounts for ever-increasing knowledge growth, must therefore be incorporated into these rankings if a nation’s knowledge output is to be more accurately measured. Knowledge-Intensive Sectors (KIS) in the services area can be grouped as high-tech and medium-tech. High-tech would include Post and Telecommunications, Computer and Related Activities, and Research and Development. Medium-technology service areas include numerous

classifications detailed in the following table (Leydesdorff, Dolfsma & van der Panne, 2004).

Figure 3.3

Classification of high-tech and knowledge-intensive sectors according to Eurostat.

Source: Laafia, 2002a, at p. 7.

High-tech Manufacturing	Knowledge-intensive Sectors (KIS)
30 Manufacturing of office machinery and computers	61 Water transport
32 Manufacturing of radio, television and communication equipment and apparatus	62 Air transport
33 Manufacturing of medical precision and optical instruments, watches and clocks	64 Post and telecommunications
	65 Financial intermediation, except insurance and pension funding
	66 Insurance and pension funding, except compulsory social security
	67 Activities auxiliary to financial intermediation
Medium-high-tech Manufacturing	70 Real estate activities
24 Manufacture of chemicals and chemical products	71 Renting of machinery and equipment without operator and of personal and household goods
29 Manufacture of machinery and equipment n.e.c.	72 Computer and related activities
31 Manufacture of electrical machinery and apparatus n.e.c.	73 Research and development
	74 Other business activities

34 Manufacture of motor vehicles, trailers and semi-trailers	80 Education
35 Manufacturing of other transport equipment	85 Health and social work
	92 Recreational, cultural and sporting activities
	Of these sectors, 64, 72 and 73 are considered high-tech services.

3.4.8 Measuring knowledge networks

To facilitate in the development and dissemination of knowledge, a network among knowledge producers and users must exist. These networks may be formal or informal, and may involve both tacit and implicit knowledge. The less formal and tacit knowledge oriented networks are the most difficult to measure but nonetheless make significant contributions to the knowledge value of an economy.

Some of the elements of the knowledge network consist of:

- Universities sharing knowledge among themselves
- Universities and industry working together in knowledge development and implementation
- A sharing of knowledge between manufacturers and distributors
(Chakravorti, Daniels & Lassar, 2003) and suppliers and customers
- Defense contractors and government sectors

The exchange of information and knowledge may take place through joint research projects, presentations at conferences and trade shows, academic and professional articles, international student and academic exchange agreements, international joint venture programs and global collaborative research centers (Wood, 2003).

Knowledge networks are also applicable to evaluating the knowledge component of regions, such as states and cities. The regional knowledge networks include, at a minimum, industry, universities and local governments.

3.4.9 Measuring knowledge and learning

As we continue to make progress in the era of the knowledge-based economy, it becomes increasingly clear that lifelong learning is an absolute requirement for maintaining an edge in knowledge and skills growth. In fact, another name for the knowledge economy could even be the learning economy (Lundvall & Johnson, 1994), because mere accumulation of data and knowledge without transfer and dissemination would create little impact on economic development. The new knowledge and skills developed may be disseminated in various ways, all of which involve learning. Students of the new knowledge can read books and articles, interact electronically via the Internet and other media, apprentice with masters in their fields, or attend classes in a traditional educational environment. Educational environments in the learning economy may simply be conventional classrooms, complete with desks and professors, or they might take the form of electronic classrooms with facilitating instructors.

Until recently, the conventional way of measuring the development of human capital has been through fairly straightforward means. Economists have looked at a population's years of education and years of experience, with the years of education typically defined as formal education obtained in traditional channels. However, in order to evaluate the learning component of the knowledge economy, the indicators of years of education must undergo expansion in both width and depth. Now that so many ways of delivering an education exist, each must be included and evaluated when economists measure human capital; categories of knowledge and skills must also undergo analysis. Ultimately, the profound changes our system of learning has undergone will likewise mandate a complete reevaluation of the educational component of the economy (Burton-Jones, 1999; Drucker, 1994). With the speed of knowledge development and technological and social change increasing the need for continual lifelong learning becomes more obvious. This thesis will address this aspect of changes in the role of higher education and how this continuing education may be incorporated into a valuation system for the knowledge-based economy .

This thesis focuses on the role of education in the generation and support of a local knowledge-based economy; therefore, its analysis relates to the role of education in this function. Business and business technology education, a key component of business growth, clearly has an important role in sustaining local economic growth whereas education for self-fulfillment contributions is less obvious, and thus will not be examined here. As was previously demonstrated, innovation can occur only if the new breakthrough is commercialized. The need for an environment that fosters entrepreneurship and contains the knowledge needed to commercialize products is every bit as valuable as the original research effort. Therefore, this thesis will

address the development and maintenance of high level business skills required to support the growth of a regional high skills economy, a type of education often referred to as continuing education or lifelong learning, or, in the United Kingdom, continuing professional development. Continuing education falls into several categories, many of which are easily tracked and measured and which could consequently be included as indicators for measuring learning and knowledge. The first category of continuing education is already measured as a function of measuring knowledge and learning—the completion of undergraduate and graduate degrees. Generally speaking, undergraduate and graduate degrees are considered a part of the number of years of education, but, increasingly, people are not seeking undergraduate degrees immediately following high school or graduate degrees immediately following college (Stokes, 2006). First, more and more people are returning to formal education after a long hiatus. An MBA degree, for example, is very often completed ten years after formal education has been completed, and the average age of MBA students is 35 in Australia (http://www.mbasolutions.com.au/mba_article.html, retrieved June 3, 2006), 27-29 in the USA for starting MBA students (<http://www.careerjournal.com/myc/school/19980930-berger.html>, retrieved June 3, 2006) and hovering between 26 and 35 years in the UK (http://education.independent.co.uk/graduate_options/mbas_guide/article363247.ece, retrieved June 3, 2006). Second, there has been an increase in the number of adults seeking undergraduate degrees, in programs generally offered by traditional college and university models, to improve their employment opportunities, although there has been a growth of non-traditional institutions offering undergraduate and graduate degrees either online or through a hybrid of classroom and distance

learning. These examples illustrate that even traditional undergraduate and graduate degrees are beginning to fall within the category of lifelong learning.

The second category of continuing education is also experiencing rapid growth: the area of widely recognized certificate programs, generally not affiliated with an institute of higher learning, which often fall under an umbrella specialty organization such as the Project Management Institute (PMI), the Association for Financial Professionals (AFP), or the Institute for Supply Management (ISM). As an example of the growth in certification acceptance, the AFP website asserts “demand for the AFP certification has grown. From the almost 1000 examinees in 1986 to the over 2500 examinees in 2005, these numbers reflect the demands of the treasury workplace for a knowledgeable, skilled employee: during the past 20 years, over 17,000 professionals have earned their certification” (<http://www.afponline.org>, retrieved August 8, 2006). According to the ISM website, the number of practitioners awarded the Certified Purchasing Manager (CPM®) designation has grown from 36,893 in fiscal year 2000-2001 to 42,266 in fiscal year 2003-2004, an increase of nearly 15% (<http://www.napm.org>, retrieved August 9, 2006). Not only is the awarding of these certifications easy to track and to include as a valuable indicator, but, as will be seen in table 4.1, certifications are also highly valued by employers.

The third category of lifelong learning is vendor-specific certifications. Technology companies like Microsoft, Cisco, and IBM offer various certifications, which are highly sought after by job seekers and free-lance workers. Many jobs require these certifications before even considering applicants. Training for these certifications is

also easily tracked and is offered through traditional modes as well as through specialty training centers and electronic media.

The fourth category of continuing education is local certifications. Although local certifications may be offered through formal educational institutions, they are, as the name implies, only recognized locally and would thus be difficult to track and evaluate; therefore, they will not play a role in the measurement process.

The fifth and final category of lifelong learning is general courses offered without certification. People interested in self-improvement and understanding seek out these courses, but, again, this category is difficult to measure and will not play a role in the measurement process.

3.5 Conclusions

In order to understand how a university could contribute to the value of a state or region it is necessary to explore how value in a knowledge based economy might be measured. A university can contribute to the knowledge value of a particular measurement area. Measuring this contribution, especially in this relatively new arena of high-skills lifelong continuing learning requires guidelines and criteria. This thesis will explore recent research into this new aspect of university involvement in learning. This component of this thesis is necessary to be able to evaluate the university's contribution in its totality, rather than to only one particular aspect of learning and the value it might create.

In measuring the knowledge value of a country, state region or metropolitan area it is obvious from the measurements espoused by the OECD and others all have to do with the delivery of knowledge to the market in one form or another. The knowledge may manifest itself in the form of a product with high knowledge content, such as high-technology products in the areas of aerospace or pharmaceuticals, or a service that is based on advanced knowledge, such as advanced search engines or cutting-edge graphics programs.

As we saw earlier in this thesis, the OECD has attempted to propose a number of new indicators to include in a formula for evaluating knowledge value. The proposed indicators should address:

1. measuring knowledge inputs
2. measuring knowledge stocks and flows
3. measuring knowledge outputs
4. measuring knowledge networks
5. measuring knowledge and learning

While the first category is already measured to a great degree in the current GNP indicators – areas such as research and development (R&D) expenditures, engineers and technical personnel employment figures, patents and numbers of graduates of higher education the next two proposed measurements are measurement of the product of knowledge. In other words, knowledge must be utilized in some way to produce a measurable value. Even the measuring of knowledge networks has to do with the interaction of knowledge developers, such as universities, with knowledge innovators and users such as industry or government.

As was seen in the anecdotal account of Howard Leonhardt, the mere addition to the knowledge base does not add to the knowledge value. The knowledge must be implemented in some way in order to have value. The research conducted by Syde Taheri sat unproductive for ten years before the innovator took the knowledge and made it valuable.

In order to support the addition of value to the knowledge developed in an economy a complete support structure is necessary. This support structure must also incorporate cutting-edge knowledge and high-skills. The universities are already involved in research to discover knowledge, but they also will have to ensure that a knowledge-intensive, high-skills workforce is available to give the knowledge value by bringing it to the marketplace. For this reason the universities must support lifelong learning generally but especially in areas of business such as marketing, finance and management that are inherent in the generation and support of knowledge led companies which seek to develop competitive advantage through efficient utilization of knowledge. If the infrastructure does not exist in an economy to innovate the knowledge discovered through research then the research will either languish or move to another economic area, depriving the country, state or region the fruits of their labor.

It might seem that knowledge has been important only since the move to the knowledge-based economy. This is a misconception. Each era of sociological advancement encompassed knowledge that contributed to value. The hunter-gatherers had to have knowledge of hunting methods, and of what edibles were nutritious and which poisonous. The success and longevity of a person or clan was

based on this knowledge. Therefore the hunter-gatherer epoch can be considered a knowledge based economy.

The same holds true for the agricultural era. Land was the great definer of wealth, but knowledge of how to utilize this land was necessary to contribute to value. The knowledge of these two eras was primarily intrinsic, and was transmitted slowly and with difficulty. Once again, knowledge was the basis of the economy.

In the industrial era the knowledge contribution to wealth continued to grow. In this era knowledge shifted to specialists who could add wealth through innovation in the manufacturing process. Knowledge became more transmittable through the advent of printing, primarily because much knowledge could be made explicit. Although capital was considered paramount, it had to be supported by knowledge in order to have value.

What differentiates the information age from the preceding ages is the acceleration of additions to knowledge and the innovations that arise as new value. Another difference is in the numbers of people in the more advanced economies who have to understand and utilize aspects of this new knowledge. While all eras have been “knowledge-based”, the current era is different in the quantity of knowledge being developed and implemented in short periods of time, and the number of people who have to understand the new knowledge in order to be productive, and capable of adding value.

In the industrial era a factory worker might have to be technically competent at applying the proper torque to a nut, whereas in the current age the same worker must be able to operate a robot that automatically performs the work of multiple workers just a decade ago. These technical workers must be managed efficiently, and must be continually upgrading their skills. Hence the growing need for EPE and other types of advanced education.

This chapter has considered how knowledge is applied to generate value, how that value might possibly be measured, and what part EPE plays in supporting knowledge development.

CHAPTER 4

HIGHER EDUCATION INSTITUTIONS IN THE KNOWLEDGE-BASED ECONOMY

4.1 Introduction

This chapter will delve into the history of the university and its role in the delivery of EPE. While universities have been instrumental in the development and transfer of knowledge through research and the granting of degrees, the entry into lifelong learning and EPE is quite recent.

4.2 History of the university and its role in EPE

In order to support a knowledge-based economy, educational resources at the high-skills level must be developed and made available. Typically universities support the creation and dissemination of knowledge through research and degree programs. As the pace of technology advances and communication accelerate it becomes imperative that knowledge workers have a source of continual, lifelong learning. The universities have the knowledge repository in their faculty to take a major role on the delivery of high-skills education. This section will review the history of the university concept and its entrance into EPE. It will also examine the role that universities currently play in the delivery of EPE.

The first universities, being organized in the Middle Ages (C. 1150-1500) were modeled on the guilds of the time. These universities included masters (professors) and scholars (students). The universities fulfilled a demand in the medieval society for priests and professionals, such as lawyers, clerks and physicians (Scott, 2006).

The primary mission of the university was education, while research was conducted privately by scholars and professors. The education component was divided into undergraduate and graduate degrees.

The university concept has been growing and morphing up to the present. Along the way research became a core mission of the university, along with traditional degree education.

4.2.1 Need for continuing education

Continuing education for adults did not enter the university mix of offerings until the late 19th century. The Chautauqua Literary and Scientific Circle was founded in 1878 in Chautauqua, New York by two visionaries, Lewis Miller and the Reverend John H. Vincent. The objective of this movement was to offer adult education and correspondence courses to advance learning to those who did not have a formal education or did not have an educational facility nearby (Scott, 1999).

The Chautauqua Literary and Scientific Circle became Chautauqua University in 1883, and it became the model for adult education for the University of Chicago in 1892 through extension courses, summer sessions and a university press (Scott, 2005). The success of these programs exposed an underlying demand for adult continuing education (Howell & McGinn, 2006).

In the information and knowledge-based world the need for a continuing education is obvious. A continually increasing number of workers will, in addition to changing jobs a record number of times, also move from one career to another as

some careers become obsolete and new ones emerge (Kerka, 1993). It is unlikely that traditional colleges and universities, which tend to teach broad knowledge areas rather than specific skills, will meet the demand for continuing education. According to Garnett, “In the age of the ‘knowledge driven economy’ and the ‘corporate university’ the creation and evaluation of knowledge is now recognized as too important and pervasive to be left to higher education” (Garnett, 2001, p. 78). Instead, new schools that are more skills-oriented have been growing in recognition in the United States (Ruch, 2002). Moreover, there has been a shift in the direction of codifying, or converting tacit knowledge to explicit form. In this conversion, skill-specific organizations have formed to codify bodies of knowledge based on best practices. As skill sets change in response to advances in technology and knowledge, more skills-based organizations are forming and are codifying this knowledge, a practice that leads to standardization and the ability to test for levels of expertise.

4.3 Universities and the knowledge-based economy

Universities and colleges will, however, continue to contribute significantly to the success of the knowledge-based economy. In fact, higher education is a part of the economic strategies of many countries (Sizer, 2001). As creators and purveyors of knowledge, these traditional institutions will serve to increase and disseminate knowledge in three fairly traditional ways.

First, research universities will continue to add to the wealth of knowledge, even though research is no longer the exclusive domain of universities. Private and public research centers, as well as private enterprises with specific research interests,

are contributing more and more to the knowledge base (Erkowitz, 2000; George, Zahra & Wood, 2002). Universities, then, have started joint-venturing with these other organizations as the speed and intricacy of innovation outpaces their ability to fund and staff. Once a university creates new knowledge or innovation through research, they must transfer it to the larger world and put it to use. Companies and other organizations often contribute to and are involved in the research efforts of universities with the aim of bringing this research to market. Many research universities, in an approach that has met with mixed success, have also tried incubating new businesses owned by students and faculty while simultaneously retaining part-ownership (Mian, 1996; Etzkowitz et al, 2000). The universities in these cases would like to directly benefit from the success of new innovations brought to market (Oleksiyenko, 2002). Investment in research and development by universities is well-tracked and included in national measurements.

Second, universities will continue to pursue their conventional goal, the dissemination of knowledge, in preparing youth for careers through educating them to receive degrees. These degrees, undergraduate and graduate, are generally broad-based in scope and provide an education as opposed to a skill. Some graduate degrees also incorporate skill development, while most professional advanced degrees such as medicine, law and architecture focus more on the development of skills. The granting of degrees is well- tracked and included in national measurements.

Finally, the third role of the university or college (which, in contrast to the previous two, is fairly new) is to offer opportunities for lifelong learning. The market for

lifelong learning is hotly contested by other institutions and training facilities, including corporate training “universities.” The market for lifelong learning is to a great extent driven by the move into the knowledge-based economy. In this era the world is changing quickly with a constant outpouring of new innovations and products. The education system that exists today is an invention of the industrial revolution. A primary purpose of the education system was to prepare people for a role in a society dominated by manufacturing (Hargreaves, 2000). In the industrial society, the role of business schools was to produce competent managers. In the current economy, success relies more upon “knowledge, intelligence and creativity as its key driving force,” according to Hargreaves: “In consequence, in knowledge economies people engage in lifelong learning, for knowledge and skills need to be continually renewed” (2000, p. 2). A secondary level education is no longer sufficient for success in a continually changing and advancing knowledge economy.

As the workforce ages and the working lifetime lengthens, lifelong learning becomes more critical (Bassanini, 2003) to both the success of the individual and the economy. Continuous education and training are vital in today’s economy as skills obsolesce in a similar way to equipment and technology. New production techniques, as well as skills becoming rusty from lack of use support the requirement for continual education (Ok & Tergeist, 2002). At the executive level EPE is not only seen as a reward for executives with high potential, but also as a mechanism to augment the world-view of executive teams and to move organizations in new directions, becoming a strategic change tool (Conger & Xin, 2000). Organizations now function in a global economy, driven by knowledge. EPE must expand to deliver lifelong learning targeted to preparing managers for,

and advancing careers through targeted EPE towards globalization and rapid change (Kerka, 1993).

4.4 University/business joint venture

Lifelong learning will require a joint venture between educational institutions and business. The educational institutions must be in touch with trends and skill requirements in the business world. One important question asks: “are companies sufficiently in dialogue with education to ensure that that sector is fully aware of changes in requirements and expectations and that collaboration ensues to plan action to match such new skills requirements?” (Thompson & Guile, 1994, p. 2). A closer partnership between industry and education is required (Vickery & Wurzburg, 1996). The relationship between the university as the “traditional custodians of high-status knowledge” (Armsby, Costley & Garnett, 2006, p. 372) and the employing organization may even go beyond the teaching/learning model and extend to work-based learning. In this scenario it is common for the “higher education curriculum not only to be ‘transported’ to the workplace but also ‘translated’ for use in the workplace” (Garnett, 2001, p. 79).

Business professionals often serve on advisory boards to MBA programs and to EPE. These informal relationships can often lead to greater involvement between the business and academic communities (Daniels, 2003)

University based EPE and corporations must continue to develop models that will contribute to effective and valuable growth. Management and leadership skills, as well as advanced professional skills will continually become more required by

organizations in order to maintain relevance and competitiveness. These skills are required not only in business organizations but also in not-for-profit and governmental institutions. The skills and knowledge must be transported into these organizations and translated into applicable facilities through work-based learning and action learning. This university-employment organization relationship is where EPE must move. Universities cannot just teach for the sake of knowledge transfer, but also for knowledge translation into the workplace.

In the United States there are many players in the field of EPE continuing education. The competition from these participants in the continuing education area is often intense. Some are traditional providers, while others are new approaches to providing continuing education. These lifelong learning providers break down into five areas:

1. traditional degree education provided by colleges and universities
2. certificate issuing specialty schools
3. consulting companies
4. professional training companies
5. organizational training departments, sometimes called corporate “universities”

4.5 Participating institutions in lifelong learning

A number of diverse institutions provide EPE, such as: colleges and universities, specialty schools, consulting companies, and corporate universities.

4.5.1 Traditional degree education provided by colleges and universities

The first area of “adult” or lifelong learning is the traditional degree education. As more and more adults recognize the value, indeed the necessity, of an undergraduate or graduate degree in order to advance in their careers, the evening divisions of colleges and universities fill with adult learners striving for the recognition and opportunities that a degree offers.

This area of adult learning has become such a strong market that numerous newly accredited universities have been formed just to tap into this lucrative and growing segment, not to mention the numerous non-accredited programs, mostly associated with online learning.

A major difference between the typical undergraduate or graduate degree and continuing education is that degree programs' primary concern is dispensing academic knowledge, with some attention given to applying this knowledge to simulated real-world situations. In contrast, according to the OECD Observer Policy Brief, Lifelong Learning in February 2004 (p. 5), “With regard to adult learners, research suggests that they are most motivated when their learning involves drawing on past experiences, when learning is located in the context of their own lives, when it is applied to real problems and when they have the choice and control over what they learn.”

The traditional academic degree-granting area of lifelong learning relies heavily on theory, not on the development of skills. Therefore, the typical degree education, even for adult learners, is primarily academics and theory based.

Within the university and college system in the United States are three distinct types of institutions: government-sponsored, not-for-profit, and for-profit.

The government-sponsored institutions are degree granting entities sponsored by federal, state or local funds. An example of federal institutions would be the military academies. These institutions serve a purpose of educating future officers for the armed services. The mandate of what to teach is directed by the federal government. While there is a high degree of academic freedom, a large part of the educational experience is designed to foster a love of country and a dedication to duty, as stated in the United States Military Academy at West Point code of “Duty, honor and country.”

The second type of government-sponsored institution is the state university and college. Typically, these are directed by a board, mainly appointed by the governor of the state and the legislative body. Their mission is to educate citizens of the state so that the state has sufficient highly educated resources to serve the populace, and also to keep the state competitive in developing and luring business to the state, which adds to the job base and to the tax rolls.

Because these institutions are an arm of the state government, it would be assumed that the goals of the states would be supported through these institutions. As they are partially funded through state coffers, the tuition is typically kept low relative to the actual cost of the education. Political agendas can, to some degree, be promoted through these state institutions (Kerka, 1993). Also, national goals and objectives

can be passed on down to the states. National education goals do incorporate “preparing people for further learning and productive employment in the modern global economy” (Kerka, 1993, p. 1). As these institutions are designed to have the welfare of the state at heart, they should have goals, which are concurrent with those of the board, the governor and the legislature.

Change does not come easily in most state institutions because they are primarily directed by politics and support of the tenured faculty, both of which tend to approach change conservatively. State universities also tend to disdain “skills” education, preferring the transfer of academic knowledge because disseminating knowledge has traditionally been viewed as a higher calling: “Academics are more prone to discuss a new concept or approach rather than to implement it” (Davis & Mehta, 1997, p. 8). Universities will be invaluable in delivering continuing education and they can differentiate themselves from alternative education suppliers by “combining the traditional values of liberal education and good scholarship (Newman; von Humboldt) with a set of professional process skills” (van Vught, 1999, p. 352). According to the OECD Observer, October/November 1996, “Closer industry-education partnerships are required to replace the arms-length relation that often exists now between the worlds of work and education” (Vickery & Wurzburg, 1996, p. 21).

In this study, the focus will be the level to which the universities in the state of Florida support the goals of the state in educating the populace, particularly in the area of lifelong learning and continuing education at the high skills level. This study

will also compare the efforts of state colleges and universities with those in the next category of institutions, the not-for-profit institutions.

A differentiation between traditional education and lifelong learning contributes to the difficulty universities have with embracing the lifelong learning concept.

According to Knowles (Knowles, Holton & Swanson, 1998, p. 10), “Education is an activity undertaken or initiated by one or more agents that is designed to effect changes in the knowledge, skill, and attitudes for individuals, groups, or communities.” The educator dispenses knowledge and acts as an agent of change. The emphasis is on the educator.

In contrast, in the concept of learning, the emphasis is on the learner. In learning, there is an act or process undertaken by the learner through which knowledge and skills are acquired (Boyd & Apps, 1980)

Schools and universities in Europe, and later in the United States, were founded on the education model. The adult learning model, which has only developed as a body of study in the past few decades (Knowles et al., 1998) has not yet been embraced by the traditional university.

The third type of government sponsored institutions includes local colleges and community colleges. These are usually sponsored by cities and counties, are inexpensive and have an open-door policy to admit a wide variety of students.

These schools are very often two-year colleges offering an associates degree and act as feeder schools to the state institutions. These community colleges are very

involved in non-credit education as well as associate degrees, but the level of non-credit education is typically low-skills.

The not-for-profit institutions are either affiliated or non-affiliated. The affiliated institutions are usually religious schools, while the non-affiliated have no direct relationship with a sponsoring organization. The “not-for-profit” designation is a tax oriented designation. As these schools do not receive funding to the extent that government sponsored schools do, they have to make a “profit” from their educational offerings in order to continue to exist and grow. They are designated not-for-profit because there are no stockholders to pay dividends to, and any surplus that is generated is reinvested in the institution. As these institutions must usually compete with a government sponsored school they must be competitive and be able to differentiate themselves from the funded institutions. Differentiation may take numerous forms such as offering programs not typically offered in the funded university system, or lower admissions standards, or, on the other hand very high admissions standards and quality of education at a premium price.

For-profit institutions of higher education have been growing significantly in the United States over the past two decades. The inception of online education has contributed significantly to their growth, as they had the investment needed to develop this type of specialized education. These universities and colleges typically find a niche, such as online presentation, or some specialized programs (Ruch, 2002). Their motivation is to profit their shareholders from the education they deliver. They are usually, but not always, accredited by a regional body and offer an array of undergraduate and graduate degrees. Although many of the for-profit

universities are of an acceptable quality, the so-called “diploma mills” are usually these non-accredited, for-profit institutions that one can find easily on the Internet.

Because the individual states authorize the granting of degrees, it is not necessary for institutions to be accredited, but accreditation is seen as proof of legitimacy. In the United States, there are six regional accrediting organizations: Middle States Association of Colleges and Schools; New England Association of Colleges and Schools; North Central Association of Colleges and Schools; Northwest Association of Colleges and Schools; Southern Association of Colleges and Schools; and Western Association of Colleges and Schools. In addition to regional accreditation, there are various accrediting bodies for specific fields of study. In the United States, for example, the most respected accrediting body for business degrees is the Association to Advance Collegiate Schools of Business (AACSB); however, other accrediting bodies exist such as the International Assembly for Collegiate Business Education (IACBE). Virtually all fields of study have accrediting bodies. Academic degrees in chemistry, for example, are accredited by the American Chemical Society, and law degrees are accredited by the American Bar Association. All the accrediting agencies coordinate their efforts through the Council of Higher Education Accreditation, a private organization. In the United States, the federal government, through The Office of Post Secondary Education plays a negligible role in the accreditation of higher education (Standler, 2003).

The state universities are experiencing a metamorphosis, slowly coming to resemble the private institutions at least as far as income generation is concerned. State budgets for higher education remain stagnant, so universities have to find new ways

of raising revenue to support the higher education (Hossler et al., 1997; Gumpert & Pusser, 1997). Tuition and fees have been increasing, as well as joint-ventures with industry. While some experts (Burton-Jones) believe that the economics of a knowledge-based economy rest on the growth of knowledge, the real growth will come from a marriage of new knowledge and manufacturing. The continued expansion of the global economy means that services and goods may be sourced globally, but goods and services that naturally lend themselves to globalization are primarily goods and services that have reached the commodity classification in the product life cycle. The innovation that comes from knowledge will remain with the high-skills nation during the earlier phases of the product life cycle where the margins on the product or service are at their maximum. As these goods and services become commoditized, however, they will more likely be outsourced to countries with lower skills and abundant cheap labor (Burton-Jones, 1999).

4.5.2 Certificate issuing specialty schools

A second supplier of continuing education and lifelong learning are specialty schools. These are often technology oriented and lead not to degrees, but to certificates. Almost entirely skill based, specialty schools teach both mid- and high-skills in technology areas, are almost always profit based, and compete in a very competitive market. Some are nationally or internationally franchised schools such as New Horizons, a publicly traded company founded in 1982, with headquarters in Anaheim, California. Through a network of franchised training centers New Horizons has become a supplier of Information Technology (IT) training worldwide. Other providers are business enterprises with multiple locations such as TechSkills, a privately held company based in California, which has thirty two learning centers

across the United States, and the High-Tech Institute, a privately held Phoenix, Arizona company, founded in 1982 that has thirty five training locations throughout the United States. Still others are single location operations.

4.5.3 Consulting companies

Consulting companies such as Accenture and Bain & Company often have a training component. The consulting companies typically provide specialized training in the area of their expertise. This training may be medium or high-skills and is usually functional rather than theoretical. As this training is not usually certification based and is delivered by high-powered professionals, it can be very expensive.

4.5.4 Professional training companies

A fourth type of lifelong learning provider is a training company. In contrast to the consulting company that also provides training, the training company sees training as its primary objective and may also provide consulting services. These specialized training companies offer practical training with little theoretical content. The programs they offer may or may not be for specialized certification, but the goal is always to improve performance and enhance skills.

4.5.4 Organizational training departments, sometimes called corporate “universities”

Another provider of continuous learning is the corporation or organization itself. These entities will often have training and development departments, and the larger organizations often develop corporate “universities.” These are not true universities

as the great majority is neither accredited, nor do they offer degrees. They may enter into joint ventures with colleges or universities to provide degree-oriented education and other specialized training (Cantor, 2000), but they often have well-trained internal staff to provide education in both functional and developmental areas. Some of these, such as General Electric and Anderson Consulting have developed outstanding and frequently imitated programs in leadership and management.

Over the period from the mid-1980s to the mid-1990s, corporate investments in training have increased from \$10 billion to \$45 billion (Fulmer & Vicere, 1996). Of this amount, \$12 billion was invested in executive education, and \$3 billion was channeled through university business schools. This growth in corporate sponsored education has taken place because “Education was no longer targeted as simply beneficial to an individual but instead added value to the organization as the key beneficiary” (Conger & Xin, 2000, p.77).

This thesis will concentrate on the continuous professional development education provided by colleges and universities, and especially focus on the differences between state university systems and private colleges and universities in the state of Florida. Any larger university or college has numerous colleges or departments in it. The focus of this thesis will be on business and management disciplines and especially the support given to the development of post-graduate high skills training. Within the general area of business and organizational learning, this thesis will concentrate on executive education and professional education: “Executive education is management education for people who are in executive roles or who

hope to be; that is they are on a career path toward an executive role. . . . Advanced professional education takes two forms: (a) continuing education in the technical aspects of the profession, such as an update (Nowlen, 1988), or (b) management education” (Ballou, Bowers, Boyatzis & Kolb, 1999, p. 340).

Management education may focus on the development of particular skills such as presentation, communication, conflict management or may be targeted at improving general management skills at varying levels. The Harvard Business School and Nova Southeastern University, for example, have a three-tiered approach. The lowest level is for newly appointed managers or managers who have had no formal education in basic management skills. These skill-sets include areas such as hiring, disciplining and firing practices, motivation and leadership, and communication. The second tier is designed to advance the knowledge and skills of middle managers through a combination of competency and skill based modules. These programs are often called “mini-MBA” programs, as they cover many of the topics, albeit in a condensed format, of a traditional MBA program. This level of executive or management education is targeted at managers of functional areas such as information technology or finance who need to understand the cross-functional intricacies of the organization and the environments affecting it. The highest level executive program is targeted at business owners and senior executives. It may have components of leadership but also will incorporate modules on such high-level topics as strategic planning, growth strategies, corporate governance and financial management.

The authors of *High Skills* (Brown, et al., 2001) describe high skills as contributing to a higher value-added and therefore a more productive economy. Although they do not quite define high skills, they do try to define a high skills economy. There are different definitions and different models of a high skilled economy. One may be an economy, typical of the United States or the United Kingdom, where a high-skills elite contribute more than anyone else to the national value added (Reich, 1991). Another model, seen in Germany, may be one with a wide distribution of high skills throughout the economy.

In either model exists an underlying need for a system of education that supports the growth of a high skills sector. According to Vice President of the United States Al Gore at the Vice President's Summit at George Washington University in 1999 (Gore, 1999, p. 1), "America's competitiveness and the prosperity of our people in a changing economy depend increasingly on high-skill, high-wage jobs. Realizing our potential will require investing in education and learning for all our people throughout their lifetimes." He added, "What we know today will not be adequate for meeting the challenges for tomorrow."

4.6 High skills in the knowledge economy

A knowledge economy requires educated knowledge workers whose skills are being continually updated as information, technology and societies change at increasingly rapid rates. As we saw in previous chapters, these include inputs; stocks and flows; outputs; networks; and learning. Under the topic of learning, there are numerous arbiters, including universities and colleges, organizational training programs, private educational facilities, and online courses. Although learning takes place

throughout the life of a person, higher knowledge and skills are typically gained during the course of higher education, which usually takes place in universities and colleges, technical schools and organizational training programs. Higher education includes traditional degree programs as well as continuing lifelong education and learning. The area of particular interest to this thesis is continuing adult education in fields relevant to dispersing advanced knowledge and high skills in the area of business. Within the realm of continuous business education, particular attention will be paid to the role of universities in this endeavor.

This section will analyze the concept of “high-skills”, with a particular emphasis on EPE. We shall also study the college university systems and their level of support for EPE, both in the state and private systems. The section will then move specifically to analyzing the support in the state of Florida

4.6.1 Defining “high-skills”

In this section we shall attempt to define high-skills education in the context of EPE. We shall then categorize EPE and cite examples. Another important question in the role of EPE is who takes these programs and why do they take part. We shall survey a group of EPE participants to determine why they take part in EPE.

The term “high skills” is used extensively in literature, frequently without a definition. We have seen that a knowledge-based economy has some ability to be measured, and the level of skills is a component of this measurement. In *High Skills* by Phillip Brown, Andy Green and Hugh Lauder, there is also no absolute definition of high skills. The authors mention in a footnote (2001, p.54) that a high skills

economy has a preponderance of skills, which are at the “professional, managerial, technical” levels. While unskilled labor is defined as “anyone educated to the secondary level only, with no higher level or specific skills qualification,” (Bassanini, 2003, p. 1) high skills is largely left undefined. Brown admits that “skill” is a term very difficult to define: “Skills is variously defined as the expertise, ability, or competence to undertake specific activities often acquired through formal instruction or work experience” (Brown, et. al., 2001, p. 23). As with other commodities, the highly skilled worker is affected by supply and demand. In a knowledge-based economy, according to Vickery and Wurzburg, “There is a general increase in educational attainment on the supply side. On the demand side there is a shift towards high-skill, white-collar occupations (managers, professional, staff). . . Sectors and occupations that are growing the most are those in which standards of attainment have risen most, in, for example, rapidly growing business and financial services and high-tech manufacturing” (Vickery and Wurzburg, 1996, p. 21).

Although “high-skills” is not adequately defined in the literature, in the area of business and management education, EPE, it is more easily definable. Drawing on the research included in this thesis, and many years of personal experience in delivering EPE a definition is possible.

High-skills EPE consists of educational and learning programs offered to management level employees and above. Basic courses such as time management, business writing and Microsoft® Office software usage do not fit in the classification of high skills. These courses provide participants with basic office and

self-management knowledge and skills. High-skills commence only beyond the scope of these basic skills programs.

In the areas of skills in the EPE definition are programs for managers, executives and professionals. These may be courses targeted towards officers and managers in business corporations, not-for-profit organizations and government bodies. Also included in this definition are professionals operating in the high-skills arena, requiring advanced education and, in most cases, professional certification. This group includes such professions as lawyer, accountant, physician and educator. In most cases activity in these professions requires continuing education relative to the profession, but may include business and management education.

Professionals tend to require high-skills EPE education as they may be owners of their own practices or involved in management of their organization, be it a law firm or hospital. The book, *The Yale Physician's Guide to Business* (Rimar, 2001) covers this requirement for physicians in detail. The book espouses MBA type education for physicians. An MBA provides a wide coverage of functional areas of business and management. This prepares a professional to be a complete business team as an individual (Daniels, 2005).

High-skills EPE training is also important to contributing to the success of business owners and entrepreneurs. This group includes, but is not limited to, practitioners who start their own business. Entrepreneurs and business owners require many of the same skills as managers and officers in larger organizations, but also have specific EPE educational needs to give them a greater chance of success.

4.6.3 Functional skills

EPE falls into two categories. The first category might be called “functional” education. Functional programs are those which are primarily concerned with knowledge rather than skills. These may cover functional areas that are typically covered in a Master of Business Administration (MBA) or other management program such as Master of Public Administration (MPA) or Master of Science program in specialized business topics such as finance or marketing. Some topics that may be covered in this category are:

Business Valuation

Creating Strategic Value

Mergers and Acquisitions

Strategic Planning and the Balanced Scorecard

Finance and Accounting for Managers and Business Owners

Managing your Business using QuickBooks

Designing and Building a Strategic Marketing Plan

Integrated Marketing Communication and the Internet

Product Strategy and Brand Management

These are only samples, as numerous programs exist that can be included as functional area programs.

Another group of programs that fall predominantly into the functional classification are programs that lead to, or are required for, various certifications. These programs are special because the content and outcomes are generally dictated by a national or international body that awards the certification. As discussed elsewhere in this

thesis, these programs are becoming sought after. These programs include topics such as:

Certified Management Accountant (CMA) Certification Program

Certified Treasury Professional (CTP) Certification Program

Human Resource Professional (PHR/SPHR) Certification Program

Certified Purchasing Manager (CPM) Certification Program

Project Management (PMP) Preparation Program

4.6.4 Soft skills

The second EPE category might be called the “social-behavioral skills” area. These programs are generally related to so-called soft-skills development. These skill areas might address communication or leadership skills. While knowledge is required for these skills to be developed, the primary goal of these programs is to assist participants in developing skills that they can bring back to the workplace. These skills will hopefully make them better managers. Some programs that would fit into this category are:

Developing a Leadership Mindset

Leadership for High Performance

Leading as Coach and Collaborator

Coaching Skills for Managers

Value-based Time Management

Dynamic Communication & Interpersonal Skills

Managing Conflict in the Workplace

Presentation Skills

Stress Management

Negotiating

Sales Strategies and Techniques

4.7 Why do people participate in EPE type education?

Participants take part in EPE for a variety of reasons. A survey was conducted by the Hudson Institute of Entrepreneurship and Executive Education of Nova Southeastern University to determine the reasons for participation. The results of this survey are included in Appendix B. of this document.

The primary reasons for participation are:

- To increase skills or knowledge in a current career or profession
- To prepare for transition to a different career or profession
- To move into a position of management or leadership
- To advance to a higher level management or leadership position
- To be recognized as an expert in a career or profession

4.7.1 To increase skills or knowledge in a current career or profession

As detailed in this thesis, the rapid advancement of knowledge in various careers and professions obligates practitioners to be continually updating their skills and knowledge. EPE can supply the updated knowledge needed to develop cutting edge skills.

4.7.2 To prepare for transition to a different career or profession

The rapid changes in technology and productivity have caused the demise of numerous careers, professions and even business enterprises. Secretaries and typewriters serve as a very obvious example. As industries have moved from labor intensive to technology intensive, such as the automotive industry's rapid move to robotic manufacturing, numerous job titles have been eliminated. There is a need for many knowledge workers, and many employees in these obliterated careers have found a need to move into a new career - very often a knowledge intensive career. These career changes require new knowledge and skill sets. EPE is in the position to provide much of the education needed to assist these displaced workers in entering a new profession.

Even without the trauma of loss of a career, numerous participants take advantage of EPE in order to enter into a new career that will offer them better opportunities for advancement, satisfaction and rewards.

4.7.3 To move into a position of management or leadership

As people advance in their careers and professions many find that they wish to move into management and leadership positions in their organization. These may be salespeople who want to be sales managers; police officers who get promoted to sergeant; or medical doctors who are appointed to a board or given administrative responsibilities in a hospital. In all cases the skill sets required in the new management or leadership position are quite different from the skills that were required to be successful in the non-managerial role.

EPE, with the knowledge and experience residing in the university can supply these upwardly mobile workers with the knowledge and skills needed to be successful in the new roles.

4.7.4 To advance to a higher level management or leadership position

Managers in organizations often have the opportunity to advance to higher levels of responsibility. Managers may have an adequate knowledge of their particular functional areas, but to move from managers to officers of the organization, or from officers to board members will require a broader knowledge and additional socio-behavioral (soft) skills. An officer of an organization often has to understand how various functional areas interrelate and affect outcomes in other areas of the organization, and in the organization as a whole. Board members must have an understanding of the relationship of the organization with the outside stakeholders. Positions in senior and executive management require additional knowledge and skills that are often available through the EPE of a university.

4.7.5 To be recognized as an expert in a career or profession

Another area in which EPE can play a significant role is in preparing participants for professional certifications. As described elsewhere in this thesis there is an increasing demand for individuals who can exhibit competence in a particular specialization through becoming certified by a recognized certifying organization. Some certifications previously listed are the Certified Treasury Professional, Certified Management Accountant, Certified Public Accountant, Project

Management Professional, Certified Purchasing Manager and Professional in Human Resources, to name a few.

4.8 Educational support for continuing high-skills education

Continuing education in the high-skills area is beneficial to both the participant and the sponsoring organization. Though the age for completion of formal education is advancing, formal education is usually completed at a point early in a person's career: "Incentives to invest in formal education diminish at an increasingly rapid rate as a function of age under existing institutional arrangements. This reflects a shorter period to amortize investment costs as older adults' remaining working life becomes shorter with age and because costs in terms of foregone earnings will tend to be higher as wages increase with experience" (Blondal, Field & Girouard, 2002, p. 6).

As stated in Chapter 2, the concept of a knowledge economy encompasses not only the creation of new knowledge, but also the implementation of this knowledge: "Knowledge management involves the creation, evolution, exchange and application of new ideas into marketable goods and services for the success of an enterprise, the vitality of a nation's economy and the advancement of society" (Amidon, 1997, p. 7).

The implementation of the knowledge may come through business, government, educational, philanthropic or other means, but all of these implementation routes require advanced skill-sets in the areas of management, marketing, finance, leadership and other specific functional areas. These areas encompass the skills

areas on which this thesis will concentrate. Such highly skilled positions will be primarily filled by workers with a post-secondary or, even more likely, post-graduate level education. As these skills require continuous amplification and upgrading, the work reported here will examine the role of education in the development of skills beyond degree level.

4.8.1 Role of the university

Universities have been the traditional avenue for both creation and dissemination of knowledge: “Universities and other higher education institutions are recognized to be in the knowledge business” (Rowley, 2000, p. 1). Consequently, universities are primary contributors to the success of a region or city as a knowledge-based innovative economy. A city or region must create an environment which supports innovation and learning: “A first rate university is a necessary step. But this in turn must spawn research entities with ties to business. However, these will need to retain their scholastic and critical functions to be a source of ideas. Business in turn will require support from a host of producer services that help convert an innovation into a commercial success” (Yusuf, 2000, p. 16). Traditionally, the business sector has been a consumer of education and its products, (educated and skilled graduates), but increasingly it will become a partner in education (Prager & Omenn, 1980; Blumenthal, et. al., 1986; Caldart, 1983, Barber, 2001). A university can be most successful in assisting in the development of a local or regional economy through partnerships with business and industry and should also provide training to meet the needs of the local economy (Cantor, 2000). Moreover, universities sometimes “take a stake in regional development initiatives, engaging their efforts with local business and government,” adding impetus to the local and regional economy (Conceicao &

Heitor, 2002, p. 1). At a minimum, universities provide inspiration for innovative cities and regions (Hospers, 2003).

4.9 State of Florida educational goals

The state of Florida was chosen as a case study for various reasons. Florida has an extensive state university system as well as a substantial representation of private universities. The State of Florida has no individual state income tax, a fact of interest to knowledge intensive industries which typically pay relatively high salaries, as well as to individual “virtual” knowledge workers who are not limited by their work location.

Additionally, Florida has developed an allure for tourists and retirees, due in large part to the superb climate and sandy beaches stretching for thousands of miles on the Atlantic Ocean and the Gulf of Mexico. With the influx of tourists since the 1960’s, when air conditioning first became affordable, came a strong infrastructure in communications, highways and airports. In the past thirty years, South Florida has also become a center for trade and finance, acting as a crossroads between North America and Europe, and the countries of South and Central America and the Caribbean. With its geographical advantages as a crossroads of trade, and its position on several high speed data systems serving the hemisphere, Florida could become the regional hub for online higher education (Moore, 2003). These reasons would tend to make Florida an ideal candidate as a high knowledge-value state

Florida is also endowed with an extensive state university system of eleven colleges and universities, as well as a large number of private universities, some “for profit” and others either church-affiliated or non-affiliated “not for-profit”.

The State of Florida has given support to diversify the economy and create high-skill jobs (ICUF, 2003). Recognizing the effects of a strong university system in developing a strong high-skills state economy, the Independent College and Universities of Florida believe that “Florida should enlist independent higher education to supercharge and diversify its economy” (ICUF, 2003, p. 1). A goal of the governor of Florida, Jeb Bush, is to “expand the state’s economy beyond its heavy reliance on its traditional industries – tourism, agricultural and real estate – and attract more higher-paying ‘knowledge-based’ jobs” (Sedore, 2003, p. 1).

4.10 Universities and the business world

The role of universities has been akin to a three-legged stool for education. The first leg is research, which plays a major role in the creation of knowledge, which feeds economic progress, especially in a knowledge-based economy (Conceicao, et. al., 1997). Universities still make major contributions in the area of research and development, but it has been invaded by corporate entities as well as private research institutions. Universities have been working more closely with the corporate world in the advancement of knowledge through research and development, and this evolution will likely continue (Prager & Omenn, 1980; Blumenthal, et. al., 1986; Caldart, 1983, Barber, 2001).

The relationship that universities develop with the business world can also result in direct funding for future research and business development. As an example, the entrepreneur Howard Leonhart (see chapter 2), after selling his first company, established another company in Florida. His relationship with Florida allowed Mr. Leonhart to fund a business plan competition, the “New Venture Challenge,” for students at Florida International University; he has funded the establishment of the “Center for Entrepreneurship and Innovation” at the University of Florida, as well.

4.10.1 Traditional university role

The second leg of university business education is also traditional. The education for and granting of degrees is seen as the primary role of most universities.

Universities have been granting degrees since medieval times (Sutton, et. al., 1900).

Where research is involved in the creation of knowledge, education for degrees is mostly involved in the dissemination of explicit knowledge. Whether this is now sufficient for employment is doubtful because many knowledge organizations have employment profiles that look for more than academic qualifications (see table 3.2). In the area of educating for and granting of degrees the universities are still the major providers.

However, even the granting of degrees is shifting increasingly into the realm of adult education. In the United States, only 16% of higher education students are those that would be considered “traditional”: 18-22 year-old full-time undergraduate students. Some 58% are 22 or older and 40% are 25 or older (Stokes, 2006).

The average age of graduate students is also trending more towards adult education. In the State of Florida, as an example, the average age of beginning graduate students is 27, and of advanced graduate students it is 32 (State University System of Florida Fact Book, Table 22). This age differential is even more prevalent in the area of business.

4.10.2 University role in lifelong education

The third role of the university, the role of continuing lifelong education in the business and management high-skills area, is less traditional, but has been embraced by most universities and colleges in the United States (Stokes, 2006; Bates, 2001). The achievement of a university degree may not be sufficient in today's quickly changing and growing knowledge-based economy: "In the knowledge-based society, the minimum level of training, we contend, is one that maximizes an individual's ability to learn. There is, therefore, a need for training in learning. University education may soon be the minimum level required to yield the population this skill" (Conceicao, et. al., 1998, p. 211). The need for lifelong learning at the high skills level is also substantiated by Ok and Tergeist: "There are several grounds to expect that adult learning will contribute to human capital accumulation and growth. First, adult learning may help improve workers' skills and productivity. This may be especially useful in periods of rapid technological change: to take advantage of new technology, skills may have to be adapted (Arnal, Ok & Torres, 2001). Second, it is often argued that adult learning enhances employability and workers' ability to cope with job loss. In other words, investment in the human capital of workers may help mobilize labor resources, thereby supporting the growth process. The participation of adult workers in continuous education and training also

seems to compensate for “skills obsolescence” (Ok and Tergeist, 2002, p. 2).

Furthermore, “The new knowledge-based industries require not only technology-skilled workers with up-to-date and recent knowledge, but also workers who are constantly learning, in order for such companies to compete effectively” (Bates, 2001, p. 24). While it is widely recognized that a primary role of the university in the knowledge economy is through research and the development of knowledge breakthroughs, the larger contribution is in producing knowledge workers.

According to Lundvall (OECD, 1999, p. 4), “It takes only one year from the exam before half of what a computer engineer has learnt has become obsolete. The ‘halving time’ of what has been learnt in the education system is longer for other specific professions but on average, it is argued, it is about 8 years. This is a strong argument for universities taking on a permanent upgrading of candidates with an obsolete training as a major task. Lifelong learning has so far been a slogan with little real foundation in practice. In the learning economy it becomes a major challenge for universities and other institutions to make it a real phenomenon.”

Continuing education for adults did not enter the university mix of offerings until the late 19th century. Initially the Chautauqua Literary and Scientific Circle was founded in 1878 in Chautauqua, New York by two visionaries, Lewis Miller and the Reverend John H. Vincent. The objective of this movement was to offer adult education and correspondence courses to advance learning to those who did not have a formal education or did not have an educational facility nearby (Scott, 1999).

The Chautauqua Literary and Scientific Circle became Chautauqua University in 1883, and it became the model for adult education for the University of Chicago in

1892 through extension courses, summer sessions and a university press. (Scott, 2005) The success of these programs exposed an underlying demand for adult continuing education (Howell & McGinn, 2006).

The growth in continuing education participation continues: “Adult participation in continuous training shows a similar trend in the United States. According to results from the National Household Education Survey (NHES), 48.1% of adults aged 18 or older and who were not enrolled in elementary or secondary school participated in at least one kind of adult education activity during the 12 months prior to the 1999 interview” (Ok & Tergeist, 2002, p. 4). The trend to growth in continuing education is not only true in the United States but also in Canada and Australia (Ok and Tergeist, 2002).

4.10.3 Role of community colleges

Many community colleges have adopted the role of continuing education with vigor, but they are primarily involved in lower level skill development, more at the level of secretaries and administrative assistants requiring skills such as time management, organization and basic computer program skills. Though these are vital skills to supporting a local knowledge economy, they are not at a level that will make them significant contributors to knowledge-led economic growth.

4.10.4 Role of business schools

The schools and colleges of business within the universities have found a niche in higher levels of continuing business education. While the community colleges concentrate on basic skills, the universities concentrate more on high skills involved

with EPE. These skills are typically in advanced concepts of finance, management, leadership and business technology. This thesis will focus on the concept of executive education, which is education that prepares managers and executives for higher levels of responsibility in the organization (Crotty & Soule, 1997). Included in this educational category will be management and executive education and professional education advancing specific skills for high-skills workers and managers. While management and executive education is more general in scope and may include advanced concepts in finance, management, leadership and business technology, professional education is more directed at preparing professionals in a very specific area, such as project management, treasury management, management accounting, human resource management, training and development, or purchasing management. Frequently, professional education leads to a particular certification from a recognized certifying agency.

4.9 Public and private universities in the United States

Within the university community, there are two distinct types of universities in the United States, universities, which come under the auspices of the government, usually state governments, and private universities and colleges. It will be assumed that universities within the state system receive directives from the various departments involved with directing the educational efforts of the state (Barrow, 1996). This would mean that the state has a plan for higher education and the universities in the system would develop methods to meet the directives of the governing bodies (Barrow, 1996): “For example, a 1992 Commission on the Future of the State College and Community College System in Massachusetts recommended that the state focus its scarce resources cost-effectively by redesigning

each of its nine state colleges around distinctive ‘focus areas’ based on current enrollment patterns and regional labor market requirements” (Barrow, 1996, p. 71).

4.9.1 Private universities response to demand

Private universities would be assumed to be primarily responsive to the demands of their business constituency and would develop programs and methods of delivering these programs based on supply and demand (Kelsey, 1998). Their continuing education rationale would be considered short-term and reacting to current market trends, as opposed to the public universities, which would have long-term goals and directives from governments with a long-run vision (ibid). It must be noted, though, that private universities are not immune to some degree of government intervention, although this intervention is normally indirect and involves such items as student aid and research grants (Zumeta, 1996). However, it is also posited that private institutions “can enhance the pluralism of higher education systems, thereby increasing the choice and satisfaction of educational consumers. And they are likely to adapt relatively quickly to changes in conditions that are vital to their existence, thereby increasing the responsiveness of a system” (Geiger, 1985, p. 386)

According to Turner, “The idea of universities as independent centres of learning and research capable of standing out against government and society, and offering critical judgment of varying objectivity informed by learning and protected by the autonomy of historic institutions is discarded. Instead universities are made the servants of the state and its priorities” (1989, p. 99).

4.10 The state of Florida as a case study

Introduction

The objective of this research as stated in the research questions is to examine the existence of a link between the provision of appropriate educational resources and the support by the university systems of a local knowledge led economy. The previous discussion indicated the role that universities and colleges are believed to play in the provision of this resource and suggests an initial distinction between the state-funded and privately funded universities. A national survey is beyond the scope of this work; however, after consideration, it is believed that the state of Florida offers an opportunity to conduct a case study that will provide useful insight and information related to this research for the following reasons:

1. The state of Florida has an extensive publicly funded university system consisting of eleven universities.
2. Florida hosts a significant number of private universities (over 30).
3. The State of Florida has no individual state income tax, a fact of interest to knowledge intensive industries which typically pay relatively high salaries, as well as to individual “virtual” knowledge workers who are not limited by their work location.
4. Florida has developed an allure for tourists and retirees, due in large part to the superb climate and sandy beaches stretching for thousands of miles on the Atlantic Ocean and the Gulf of Mexico.
5. With the influx of tourists since the 1960’s, when air conditioning first became affordable, came a strong infrastructure in communications, highways and airports.

6. In the past thirty years, South Florida has also become a center for trade and finance, acting as a crossroads between North America and Europe, and the countries of South and Central America and the Caribbean.
7. With its geographical advantages as a crossroads of trade, and its position on several high speed data systems serving the hemisphere, Florida could become the regional hub for online higher education (Moore, 2003).

These reasons would tend to make Florida an ideal candidate as a high knowledge-value state.

The State of Florida is led by a governor, who appoints a Commissioner of Education and a State Board of Education. The mission of the Board of Education is as follows.

Mission of Florida's K-20 Education System

Increase the proficiency of all students within one seamless, efficient system, by providing them with the opportunity to expand their knowledge and skills through learning opportunities and research valued by students, parents, and communities, and to maintain an accountability system that measures student progress toward the following goals:

- A. Highest student achievement
- B. Seamless articulation and maximum access
- C. Skilled workforce and economic development
- D. Quality efficient services

It is interesting that the mission addresses formal education from K-20, meaning from kindergarten through the 20th year of formal education, namely a doctorate.

No mention is made in the mission of continuing or high-skills education. It is often

left to the community colleges to provide continuing education, but their scope is usually restricted to low skills learning. Item C above does target a skilled workforce and links this to economic development, but this does not encompass high-skills business learning.

4.10.1 Organization of state universities

The Commissioner of Education appoints a Board of Governors for higher education. This group was formerly the Board of Regents. The Board of Governors is responsible for exercising oversight over the university system, as distinguished from the community college system. Article 9, Section 7(d) of the Florida Constitution authorizes the Board of Governors to "operate, regulate, control, and be fully responsible for the management of the whole university system." According to Article 9, Section 7(b) of the Florida Constitution, the state university system is "comprised of all public universities," as distinguished from "community colleges" referenced in Article 9, Section 7(d) of the Florida Constitution. Thus, the Florida Constitution recognizes a difference between universities over which the Board of Governors has primary oversight and community colleges over which the State Board of Education has primary oversight.

Under the prior governor of the state of Florida, Jeb Bush, the direction of higher education changed to incorporate local Boards of Trustees for each University, making the state universities more responsive to the local needs. The current governor is Charlie Christ. Typically, the University Board of Trustees is comprised of members appointed by the Governor and the Board of Governors, with the student body president as a voting member.

The responsibilities of the Boards of Trustees are described in a document found at http://www.myflorida.com/myflorida/universityboard/expect_respons.doc. It is noteworthy that there is no mention of continuing education in this list of responsibilities.

The Florida Department of Education also has a Division of Community Colleges and Workforce Education, but this division is primarily interested in providing apprenticeships, and training for jobs that are not seen as high-skilled.

While high-skills continuing education is advanced as a priority by the governor (Sedore, 2003), little has been done in implementing a methodology to insure the continued education of the knowledge workers in the state.

CHAPTER 5

RESEARCH METHODS

5.1 Introduction

The preceding chapters have outlined the evolution of knowledge as a significant element of economic value in the later part of the 20th Century and the early part of the 21st Century. The role of education in the evolution is described in many written commentaries of policy (OECD, 1999a, 1999b, 2001, 2002, 2003a, 2003b, 2004) but essentially it is to provide a work force (Drucker, 1999; Burton-Jones, 1999; Brown, et al., 2001) with the necessary skills to take advantage of the advances in technology that are incorporated into the diverse forms of economic activity that technology innovation creates. A key concept in this is competitive advantage and how an organization can capture and maintain competitive advantage. Competitive advantage relies on workers who have the necessary knowledge skills to search, identify and apply knowledge. The impact of local education systems and their support for continued educational development is considered to be an important element in the process of generating competitive advantage. Thus the purpose of this work is to investigate the extent to which local universities support the development of a local knowledge economy.

5.2 Research Objectives

The literature reviewed in the previous chapters illustrates the range and complexity of theories and models that attempt to give a better understanding of the concepts (Drucker, 1999; Burton-Jones, 1999) related to knowledge economy and competitive advantage. One factor common to many discussions is that of education. Education

is central to many policy decisions relating to economics and social development. Addressing this issue - how can education systems contribute to development of local knowledge economies - is a central theme of the research reported in this thesis. It is acknowledged that the study of the whole range of educational provision would be impractical.

During the period of the research the researcher was employed at Florida International University (FIU) in Miami and Nova Southeastern University, a private not-for-profit university located in Fort Lauderdale. In both instances, the researcher was involved in business and management education for practicing professionals. Based on experience gained from these employments the impact of education on knowledge skills of professionals and the building of that capability and capacity is thought to be necessary for companies to develop competitive advantage and hence a knowledge led local economy.

Continuing education, also known as Lifelong Learning or executive and professional education (EPE) in business and management is one possible means by which knowledge skills can be enhanced and have an impact on local economic performance. In the light of the researchers experience and the immediate relevance of business education to economic development it was decided to concentrate on this area of education for this study.

5.2.1 Florida: A Knowledge Resource

Florida has an extensive state university system of eleven colleges and universities, as well as a large number of private universities, some “for profit” and others either

church-affiliated or non-affiliated “not for-profit. The State of Florida has no individual state income tax, a fact of interest to knowledge intensive industries which typically pay relatively high salaries, as well as to individual “virtual” knowledge workers who are not limited by their work location. The state has an extensive infrastructure in communications, highways and airports, allowing for the development of various business centers. In the past thirty years, South Florida has also become a center for trade and finance, acting as a crossroads between North America and Europe, and the countries of South and Central America and the Caribbean. With its geographical advantages as a crossroads of trade, and its position on several high speed data systems serving the hemisphere, Florida could become the regional hub for online higher education (Moore, 2003). Thus Florida has a significant knowledge resource, good communications and favorable economic conditions making it a suitable system for this study.

5.2.2 Research Questions

The objective of this research as stated in the research questions is to examine the existence of a link between the provision of appropriate educational resources and the support by the university systems of a local knowledge led economy. Within the context of the State of Florida as described previously the following questions require investigation:

- 1 *What are the components of relevant EPE?*
- 2 *What motivates participants to take part in EPE?*
- 3 *What is the level of support of the universities in the state of Florida for EPE?*
- 4 *Prepare recommendation based on the findings of the study for the state of Florida to improve support for EPE*

Investigation of these questions will require a selection of techniques to collect data appropriate to each question. Thus for example to investigate the motivation of participants in EPE the researcher may use questionnaires, interviews or a combination leading to data that is both numeric (questionnaire) and textual (interviews). Analyses of these types of data require an understanding of the paradigms associated with different research tools.

5.3 Types of Research

Scientific research paradigms are conceptual frameworks. A large number of researchers work within these frameworks (Healy and Perry, 2000). A commonly accepted definition is that proposed by Thomas Kuhn in *The Structure of Scientific Revolutions* (1962). Kuhn explains that “a paradigm is a set of assumptions about the world which is shared by most, if not all, people in a research community” (Laws, Prideaux & Moscardo, 2006, p. 9). However Kuhn (1970) also expresses concern that adherence to a prevailing paradigm may inhibit theory development.

There are two main research paradigms or philosophies, quantitative and qualitative (Denzon & Lincoln, 2000). Quantitative methods include such areas as positivist, objectivist, scientific, experimentalist or traditionalist, while qualitative methods include phenomenological, subjectivist, humanistic or interpretivist.

5.3.1 Quantitative (positivist)

“The positivist paradigm of exploring social reality is based on the philosophical ideas of French philosopher August Comte, who emphasized observation and reason as means of understanding human behaviour”

(<http://www.victorianweb.org/philosophy/comte.html>, 2008). According to Comte, true knowledge is based on experience of senses and can be obtained by observation and experiment. Positivistic thinkers consider the scientific method a means of knowledge generation. Positivism is basically quantitative and utilizes data and scientific analysis.

5.3.2 Qualitative

Qualitative research has its roots in the research of the “Chicago School” (Denzin & Lincoln, 2000) of the 1920s. Qualitative research “implies an emphasis on the qualities of entities and on processes and meanings that are not experimentally examined or measured (if measured at all) in terms of quantity, amount, intensity or frequency. Qualitative researchers stress the socially constructed nature of reality, the intimate relationship between the researcher and what is studied, and the situations constraints that shape inquiry. Such researchers emphasize the value-laden nature of inquiry” (Denzin & Lincoln, 2000, p. 8).

Qualitative research makes use of methods such as case study, participatory inquiry, interviewing, observation and interpretive analysis (Denzin & Lincoln, 2000).

“Qualitative research thus refers to the meanings, concepts, definitions, characteristics, metaphors, symbols and descriptions of things” (Berg, 1998).

Assumptions of the main paradigms

Figure 5.1 illustrates the different assumptions of the two main paradigms.

Assumption	Question	Quantitative	Qualitative
Ontological	What is the nature of reality?	Reality is objective and singular, apart from the researcher	Reality is subjective and multiple as seen by participants in a study
Epistemological	What is the relationship of the researcher to that researched?	Researcher is independent from that being researched	Researcher interacts with that being researched.
Axiological	What is the role of values?	value-free and unbiased	Value laden and biased.
Rhetorical	What is the language of research?	Formal. Based on set definitions. Impersonal voice. Use of accepted quantitative words.	Informal. Evolving decisions. Personal voice. Use of accepted qualitative words.
Methodological	What is the process of research	Deductive process. Cause and effect. Static design-categories isolated before study. Context free. Generalisations leading to prediction, explanation and understanding. Accurate and reliable through validity and reliability	Inductive process. Mutual simultaneous shaping of factors. Emerging design-categories identified during research process. Context bound. Patterns, theories developed for understanding Accurate and reliable through verification

Adapted from Creswell (1994) - from Hussey, Hussey

5.3.3 Research Strategy

The research questions posed in the previous section could be addressed in a number of ways and it is the intention of this section to outline the strategy that has been adopted to select research methods.

5.3.4 Section 1 – Case Study

The question “*What is the level of support of the universities in the state of Florida for EPE?*” could be viewed in a number of different perspectives such as cost, participation, content, business sector and so on. As mentioned earlier this is a complex issue and will require some limitation on the variables in order to progress the study. One approach to this is the development of an initial case study based on experiential data observed by the researcher in his role as director in FIU which is used to develop a realistic framework for this phase of the research. It is recognized that this will inevitably be influenced by the participant researcher role of the author. At the base, it is researcher bias that plays a role in selecting the topic of research and methods to be employed (Berg, 1998). The research may be affected by human feelings of the researcher, which may lead to predetermined findings. The research should be as objective as possible, but the nature of some research methods, especially in the qualitative arena are often subjective by nature. Human feelings in research are a reality and presentation of these feelings is legitimate (Berg, 1998).

5.3.5 Section 2 - Survey utilizing questionnaire

With the cooperation of the Hudson Institute of Entrepreneurship and Executive Education (HIEEE) the researcher conducted a survey. The framework derived from the initial case study was used to establish numerous questions in the survey. The primary purpose of the survey is to address the questions: *“What are the major components of EPE?”* and *“What motivates participants to take part in EPE?”* In addition appropriate survey elements will be utilized to substantiate proposed indicators developed by the author. Indicators were developed as a result of the findings of the literature review sections of this thesis, coupled with insights from the FIU case study. These indicators will be used to assess individual institutions, both public and private, support for EPE and also enable a basis for comparison. And finally these will provide a basis for the recommendations to the state of Florida in respect of improving support for EPE.

5.3.6 Section 3 – Survey utilizing internet

The third research method is positivist and analyses the level of support of the various universities selected to the support of EPE education. To investigate this part of the study a non-intrusive survey of several universities, both of the state of Florida higher education system (public) and private universities in the state of Florida was undertaken by the researcher. The survey was conducted entirely online, utilizing information included in the targeted universities’ websites. The approach of this third method is to utilize unobtrusive research measures. Due to the fact that the researcher is a competitor to the universities being examined it is unlikely that the

responsible officers in charge of EPE in these universities would openly and forthrightly share operational information.

According to Berg (1998, p. 177), “unobtrusive measures actually make up a particularly interesting and innovative strategy for collecting and assessing data. In some instances, unobtrusive indicators provide access to aspects of social settings and their inhabitants that are simply unreachable through any other means.”

5.4 Section 1 – Exploratory Case Study

Case studies are used to investigate cause and effect relations in a wide range of situations. However as might be expected this methodology has advantages and disadvantages and it is necessary to consider these in the light of the outcomes required.

5.4.1 Case Studies - strengths

Case studies are rooted in real contexts, examining actual circumstances and situations. “Case study methods involve systematically gathering enough information about a particular person, social setting, event or group to permit the researcher to effectively understand how it operates or functions” (Berg, 1999, p. 212). This research method is commonly used in thesis and dissertation research (Yin, 1994).

5.4.2 Case Studies – weaknesses

It is recognized that the validity (Yin, 1994) of the interpretation of case study results may be open to bias arising from the inherent social and personal views of the researcher. The participant researcher must recognize these influences when considering the results of a case study.

Another concern about the value of case study research is scientific generalization from a specific case (Yin, 1994), however the purpose of a case study is to “expand and generalize theories (analytical generalization) and not to enumerate frequencies (statistical generalization)” (Yin, 1994, p. 12).

5.4.3 Exploratory Case Studies

Exploratory case studies may be undertaken before implementing a large-scale investigation. An exploratory case study examines one incident and attempts to draw more general conclusions, typically it attempts to answer the question, “What”, such as “What is necessary to have successful EPE in a university?” An exploratory case study may be utilized to “develop pertinent hypotheses and propositions for further inquiry” (Yin, 1994, p 5.).

An exploratory case study is an appropriate research method to elucidate through a practical application the conclusions and recommendations of this thesis. An exploratory case study will add animation and support to the research results contained in the body of the thesis.

While this exploratory case study is important in assisting an understanding the conclusions and recommendations of this report, exploratory cases studies are sometimes seen as not being a valid research method (Yin, 1994). While biases of the author are sure to seep into the content of the case study, the data contained in the case study are not affected in any substantive way and the information gathered is seen by the researcher to be accurate and unbiased. For the purpose of this thesis and to supporting the recommendations and conclusions herein, the content of this case study is sufficiently important that any minor biases that may be inherent in the research method are offset by the value brought.

This particular exploratory case study is but one example of the development and operation of an EPE program in a university. Although it is but one example it is important in that it displays a successful example that much important data can be extrapolated from. This case study goes to the heart of the primary research question and supports the research indicators developed in Chapter 6, Section 3, as well as rendering additional support to the recommendations and conclusions of Chapter 7.

Another purpose of a case study may be to explore or refine theories (Kaarbo & Beasley, 1999). The exploratory case study is utilized to test the theories inherent in the indicators utilized in this thesis. These theories may be considered to be weak, and the inclusion of this exploratory case study gives additional strength to the theories or indicators themselves, as well as to the research methods employed (Goldman, 1988). “Further, the use of a case study is particularly important with novel hypotheses or theories, such that an existing body of evidence cannot be

referenced in speculating about the plausibility of a suspected relationship (Kaarbo & Beasley, 1999, p. 375)

Every effort has been made to keep this exploratory case study concise and pertinent. Comments have been inserted at intervals within the case study in order to explicitly link the content of the case study to the conclusions and recommendations of the thesis, as well as to the selection of particular indicators that were utilized in the research methods.

The use of an exploratory case study here is based on the fact that little or no previous work was available to guide the research. Thus, a study examining the various influences that were present in the formation of an EPE in FIU was undertaken with the aim of identifying significant factors relevant to constructing a framework within which the processes can be assessed objectively across a range of institutions. The use of such an approach may be to explore or refine theories (Kaarbo & Beasley, 1999) e.g. a framework for the further research. The exploratory case study is utilized to help develop the theories inherent in the indicators utilized in this thesis. The inclusion of an exploratory case study gives the opportunity to examine and test assumptions related to the theories or indicators themselves, as well as to the research methods employed (Yin, 1994). “Further, the use of a case study is particularly important with novel hypotheses or theories, such that an existing body of evidence cannot be referenced in speculating about the plausibility of a suspected relationship (Kaarbo & Beasley, 1999, p. 375)

This particular exploratory case study is an example of the development and operation of an EPE program in a university. It is important in that it studies a successful example of EPE from which much useful data can be extrapolated.

The purpose of an explorative case study is to help provide insight and understanding in relation to an investigation. This case study is utilized to explore the substance of the research questions: What are the components of relevant EPE?; What motivates participants to take part in EPE?; and What is the level of support of the universities in the state of Florida for EPE?. Additionally the findings of the case study will assist in developing recommendations for the state of Florida. It will allow the researcher to understand how an office of professional education may be developed in a state university environment. This case study will elucidate topics contained in the thesis *The Knowledge-Based Economy and Higher Education: Cases from the State of Florida*.

5.5 Section 2 – Survey utilizing questionnaire

5.5.1 Research paradigms

The purpose of this research is to address the question: *What motivates participants to take part in EPE?* This section utilizes a positivist paradigm through survey questions included in a questionnaire developed by the researcher and administered through the Hudson Institute of Entrepreneurship and Executive Education (HIEEE).

5.4.2 Surveys

A survey is a positivistic methodology whereby a sample of subjects is drawn from a population and studied to make inferences about the population (Hussey & Hussey, 1997). As the population to be studied is participants in EPE programs it was decided to design a questionnaire to be utilized in EPE classes. The HIEEE delivers EPE programs, both open enrolment and in-house for particular companies and organizations. The HIEEE agreed to assess participants in EPE programs utilizing the questionnaire designed by the researcher. The data were collected from April through June, 2008.

The questions included in the questionnaire (Appendix B) were developed based on experience of the researcher in administering EPE programs. Through informal interviews with participants, both prior too and immediately following the EPE programs, the researcher was able to identify motivators of participants. This list of possible motivators was then reviewed by several faculty members and instructors who deliver EPE programs for their input and included in the questionnaire as question #5.

These questions gauge the motivation of participants for taking the particular EPE program. Question #5 is:

Please rank the following statements as to their influence in motivating you to take part in this continuing education program.

1. Increase skills and knowledge in my current career/profession
2. Prepare for transition to a different career/profession

3. Enhance skills and knowledge to advance in current career/profession
4. Move into a management/leadership position
5. Be recognized as an expert in my current career/profession
6. Other. Please explain.

Participants were asked to rate each of these on a scale of 0 through 5, as follows:

0. Not applicable
1. Not important in motivating me to take part in this program
2. Low importance, but somewhat affected my decision to enroll in this program
3. Important. This knowledge, or these skills are important to my future success
4. Very important. Not having these skills or this knowledge will be detrimental to my career development.
5. Highest importance. Absolutely essential for continued success

A total of 99 participants took part in this survey.

As with any questions developed by involved individuals a certain amount of subjectivity can influence the question selection. It is believed that the experience of the director, coupled with the faculty/instructor review has made the question selection as objective as possible.

A Likert scale was utilized in collecting and evaluating responses of the participants.

A Likert scale utilizes a five, seven or nine point rating scale. Respondent's attitudes are measured from lowest (1) to highest (5). A possible selection of "Not applicable" (0) is also included to be utilized by the respondent when applicable

(Berg, 1998; Rea & Parker, 1997). The Likert scale was accepted by the researcher as an adequate method to evaluate participant's attitude towards importance of the motivations indicated in the questions. A Likert scale offers an acceptable method of measuring the relative importance of goals (Maurer & Pierce, 1998). While the Likert scale has been challenged as having potential differences in understanding among cultures, for the purpose of this research, where respondents were reasonably homogeneous, it was determined by the researcher to be an acceptable measuring device (Lee, Jones, Mineyama & Zhang, 2002).

The 99 participants taking part in the survey completed nine different EPE programs. No participants refused to take part in the survey. Additional information on participants is available in Appendix B.

The data collected and utilized in this thesis were formulated as descriptive statistics utilizing Microsoft Excel software.

5.4.3 Misrepresentation

“The analysis of qualitative data inevitably is influenced by the theoretical framework, epistemological commitments, personal characteristics and preconceptions of the researcher. The interpretative nature of qualitative research means that the published results are only a version of ‘the truth’ and the validity of the findings must be judged in relation to the care with which the data were analyzed” (Richards & Schwartz, 2002, p. 136).

5.4.4 Validity and bias

Validity is the extent to which the research findings accurately represent what is happening in the situation being studied (Hussey & Hussey, p. 57). Validity is thus a requirement for both quantitative and qualitative research. A practical way of achieving validity is to minimize the bias inherent in research. The sources of bias are the characteristics, attitudes, opinions and beliefs of the developer of the questionnaire as well as of the respondent, and the content and syntax of the questions. Every effort has been made by the researcher to minimize the effects of bias in the research contained in this thesis.

An element of triangulation was also utilized to reduce potential bias in the survey questions: investigator triangulation (Yin, 1994). This was achieved by involving several professors and instructors of EPE in reviewing the questionnaire and validating the questions.

5.5 Section 3 – Survey utilizing internet

This section evaluates the support for EPE of various universities in the state of Florida. This evaluation addresses the research question: *What is the level of support of the universities in the state of Florida for EPE?*

5.5.1 Research paradigms

In recent years the dominance of the positivist paradigm especially in relation to Social Science research has been challenged. The Positivist approach assumes that

the investigator is removed from the investigation and as such does not introduce any bias into the findings. Positivists assumed that social phenomena can be modeled in the same way as physical phenomena and in this way general conclusions could be derived. This generalist approach has increasingly been refuted by social scientists who have evolved an interpretivist approach in which the epistemological stance of the researcher is seen as an integral part of the research process and so the relationship between knowledge stance, research method and data collection and analysis is one that needs some thought in relationship to the investigation being undertaken. Methodologies that are considered under this general term include Action Research, Ethnography, Interviewing, Surveys etc. along with data analysis techniques ranging from discourse analysis to statistics. The actual combination of epistemological stance, research methods and data collection and analysis is dependant on the nature of the investigation.

In the current investigation the research questions reflect aspects of straight forward data (number of institutions, courses etc.), interpretation of the policy documents and text in support of business education provision. Interviewing would have been a useful approach however since the researcher is a senior member of staff of a business education provider it was consider unlikely that other institutions would be willing to discuss their rational and intentions in what constitutes a market place in many instances. Similar reasoning was considered to apply to conducting surveys. Thus the range of methodologies is somewhat limited for the current investigation.

5.5.2 Government policy

The governance processes in the USA are partly influenced by federal policy and local state policy thus an understanding of the provisions will to some extent depend on an understanding of the relationship between federal and state policy. In addition to this, there is a divide between private and state provision of education.

Federal policy is generally used to establish the broad parameters within which state governments are expected to develop provision that meets local needs

Several indicators, as described below have been selected to measure the level of response of universities to the need for high-skills management and business continuing education.

5.5.3 Indicators

Having examined the various classifications of knowledge, analyzed the OECD's proposed indicators for evaluating the value of knowledge, and suggested several specific and easily tracked indicators for measuring knowledge and learning, the researcher will explore further whether these indicators may be extrapolated to evaluate the value to the state of Florida in moving into the knowledge-based economy.

5.5.4 Sources of data on indicators

Despite the enormous growth of internet use throughout the world, sparse research exists on the current state of usage of university websites. It is generally accepted

that the advent of the Worldwide Web has caused a revolution in the way universities and university libraries operate and provide information to users (Houghton, 2000). In this era of internet communication the websites of university offerings are typically the most up-to-date source of information on course offerings and general information about operations and organization. When searching for continuing education by educated managers and professionals, the internet is the simplest and most complete source.

Consequently, university websites' information regarding lifelong learning should be up- to-date, easy to use and find, and complete with accurate facts. For the purpose of this study, university websites will be used as a source of direct research. The websites will be utilized for gathering research information and judged for effectiveness, ease of use and completeness. Users must have a positive perception of the usefulness of the site, in addition to experiencing a satisfying experience when utilizing a website. Merely supplying information is not sufficient (VandeCreek, 2005).

While it is typically thought that the website of an organization is used for marketing purposes it is also true that the information on the web site is indicative of the organization's strategies and mission. Insomuch as this is true, the location of a link to the department supplying EPE can tell us about the importance of EPE to the mission of the university.

5.5.5 Indicators utilized in this research

For the purpose of this research, a sampling of five state and three private universities was evaluated. These will be reviewed using the following indicators:

- A. University organization and mission
- B. Role and organization of continuing education in the areas of business and management
- C. Apparent strategies
- D. Types of knowledge and high-skills programs offered
- E. Commitment to certification training
- F. Accessibility from web site

Each of the above six criteria will be rated on a scale of 1 – 5, one being the lowest rating and five the highest. These rankings will be utilized in evaluating commitment to EPE of the various universities.

The rankings of indicators were selected by the researcher to provide a method of comparison among the universities. As is the case whenever such indicators are chosen by an individual, various biases enter into the equation. In this case, years of experience in the field of EPE have led to the choice of the above listed indicators.

The author has attempted to remain as objective as possible in determining these indicators as important to evaluate in determining the level of importance given by a particular university to EPE.

5.5.5a University organization and mission

The mission of the institution, and the organization to support the mission, is directly correlated to the support of high-skills business continuing education. A mission statement generally encompasses the purpose or *raison d'être* of an organization. If the mission statement of the institution does not address the concept of high-skills continuing education, then the resources necessary to develop these programs and the emphasis put on lifelong learning will be minimal. This research will look at both the university and the business school mission statements in an effort to establish an indication the level of support given to high-skills continuing education, particularly in the areas of business and management.

Rating scale:

- 5. High-skills business education stated in the mission statements
- 3. Continuing education stated in the mission statements
- 1. No reference to continuing education or lifelong learning in the mission statements

5.5.5b Role and organization of continuing education in the areas of business and management

A secondary concern will be whether schools that relegate this type of education to a specific “continuing education” entity will be less effective at developing and delivering high-skills business programs than those that position this type of learning directly under the College of Business or its equivalent. The results of the research will be examined with a view to trying to identify if there is a corollary

between the responsibility of providing continuing education in the areas of business and management and the level and scope of this education.

Rating scale:

5. High-skills business education under the school of business or equivalent
3. Business continuing education under school of continuing education
1. No continuing education

5.5.5c Apparent strategies

A strategy is a plan of action designed to achieve a particular goal. Are the programs offered in the area of high-skills business training following a strategy or are they merely a reaction to intermittent demands. Or are such programs offered at all?

Oftentimes a request from a client organization will result in a particular program being offered. This is not a strategy, but a tactical reaction to a request. Other times a faculty member may suggest a course or program in which she or he has interest and knowledge. Programs based on responses to such impetus do not comprise a strategic plan, but could be used as a basis on which to develop a strategy. A strategy will often be instituted in response to an element in a mission statement. A strategy, perhaps developed in response to a mission, will signify recognition of the need for high-skills continuing education and learning.

The strategy involved with EPE should address the needs of participants.

Participants take part in EPE for various reasons, and programs should be offered that deliver knowledge and develop skills towards these needs. As described earlier, these reasons are:

- To increase skills or knowledge in a current career or profession
- To prepare for transition to a different career or profession
- To move into a position of management or leadership
- To advance to a higher level management or leadership position
- To be recognized as an expert in a career or profession

A strategy should address developing programs to meet these reasons for participating in EPE.

A strategy may also address regional needs, based on the required knowledge and skills of the area. An industrial area may require more programs addressing lean manufacturing and quality assurance. Many cities in Florida are involved in the hospitality industry, so offerings should be strategically designed to provide training useful to this industry, such as customer service and leadership. These are only two examples and typically numerous specialty sectors exist in any city or state.

Universities that have a strategy, indicated by the mix of EPE programs they offer will receive the highest grade. The strategy should include programs that are complimentary and target the needs of participants in their area. If it is impossible to identify a cohesive strategy though the programs offered but the programs have a semblance of organization and forethought they will be considered to have a possible strategy and may receive a grade of 2 to 4. Universities that offer programs in a helter-skelter manner, or offer no programs at all will be given a grade of 1.

Rating scale:

5. Obvious strategy

3. Possible strategy

1. No apparent strategy, or no continuing education offered

5.5.5d Types of knowledge and high-skills programs offered

Fitting in with possible strategies will be the types and levels of high-skills programs offered. Are the programs offered at an administrative, managerial or executive level? What are the offerings for professionals, and in conjunction with this, what certification preparation courses are offered?

Rating Scale:

5. Managerial, executive, professional and administrative areas covered
4. Three of four areas covered
3. Two of four areas covered
2. One area covered
1. No offerings in these areas

5.5.5e Commitment to certification training

Training for preparation for a recognized high-skills certification enhances both the level and quality of a program. These nationally and internationally recognized certifications are typically developed with a high level skill and knowledge content, with guidelines from a board of peers. Offering a compliment of certification preparation programs also signifies a certain level of strategy in the program offerings.

5. Offering 4 or more certification preparation programs

4. Offering 3 certification preparation programs
3. Offering 2 certification preparation programs
2. Offering 1 certification preparation program
1. Not offering certification preparation programs

5.5.5f Accessibility from web site

An indicator of the level of support for high-skills business continuing education is the ease of reaching the proper webpage giving information on these programs.

Web users are basically impatient and want to have access to the information they desire as quickly and effortlessly as possible (Bucy, Lang, Potter & Grabe., 1999).

Some universities have links from the primary university page to the “Executive Education” or similar page. Other schools may have the link from a secondary page, such as the school of business or continuing education. The ease of finding the appropriate page is very important to the success of the programs (Kitajima, Blackmon & Polson, 1997).

While it is typically thought that the web site of an organization is used for marketing purposes it is also true that the information on the web site is indicative of the organization’s strategies and mission. Inasmuch as this is true, the location of a link to the department supplying EPE will tell us about the importance of EPE to the mission of the university.

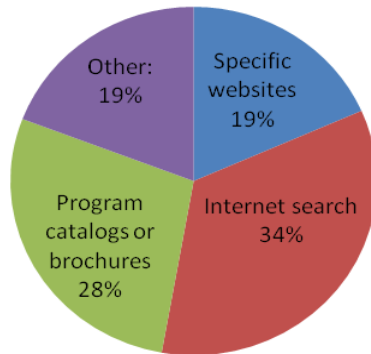
The importance of having complete and up-to-date data on the EPE website is supported by research conducted by the Hudson Institute of Entrepreneurship and Executive Education of Nova Southeastern University (Appendix B). In the survey

question “How do you get most of your information about continuing education?” sixty-six percent of the respondents indicated either “Specific websites” or “Internet search”. Another five percent listed “Other” as “email”, bringing the percentage of respondents getting information from the internet to seventy-one percent. Only twenty-eight percent of the respondents utilized “Program catalogs or brochures” as their primary source of information. An EPE department would have to maintain current and accurate information on its web site or risk losing as much as seventy-one percent of potential participants.

Figure 5.2 HIEEE participant survey answers to question “How do you get most of your information about continuing education?”

Specific websites	23
Internet search	43
Program catalogs or brochures	35
Other:	24
<i>Company training program</i> <i>work</i> <i>work</i> <i>coastal training institute</i> <i>coastal training institute</i> <i>professional associations</i> <i>email</i> <i>Human resources</i> <i>Company</i> <i>employer</i> <i>information provided by company</i> <i>my boss received updates of classes/seminars on a regular basis</i> <i>Hard notes</i> <i>email</i> <i>email</i> <i>email</i> <i>email</i> <i>human resources</i> <i>supervisor</i>	

How do you get most of your information about continuing education?



Rating scale:

5. Direct link from institution home page to high-skills business education page
4. Direct link to college of business (or equivalent) page, with direct link from there to high-skills business programs page
3. Direct link to continuing education page with direct link to high-skills business programs page
2. Direct link to business school or continuing education, but with no visible link to high-skills business programs page
1. No link easily found to high-skills business programs page

CHAPTER 6

RESEARCH RESULTS

Section 1 - Case Study, Florida International University

6.1.1 Purpose

The purpose of this exploratory case study is to understand how an office of professional education may be developed in a state university environment. This case study will elucidate topics contained in the thesis *The Knowledge-Based Economy and Higher Education: Cases from the State of Florida*.

This case study will have as a purpose to assist in answering the research questions of the thesis, namely:

- 1 *What are the components of relevant EPE?*
- 2 *What motivates participants to take part in EPE?*
- 3 *What is the level of support of the universities in the state of Florida for EPE?*
- 4 *Prepare recommendation based on the findings of the study for the state of Florida to improve support for EPE*

In addition to addressing these research questions the case study will address the indicators utilized in evaluating universities in the state of Florida.

This particular explorative case study is but one example of the development and operation of an EPE program in a university. Although it is but one example it is important in that it displays a successful example that much can be extrapolated from. This case study goes to the heart of the primary research question and supports the research indicators developed in Chapter 6, Section 3, as well as rendering additional support to the recommendations and conclusions of Chapter 7.

Another purpose of a case study may be to explore or refine theories (Kaarbo & Beasley, 1999). The exploratory case study is utilized to test the theories inherent in the indicators utilized in this thesis. These theories may be considered to be weak, and the inclusion of this descriptive case study gives additional strength to the theories or indicators themselves, as well as to the research methods employed (Yin, 1994). “Further, the use of a case study is particularly important with novel hypotheses or theories, such that an existing body of evidence cannot be referenced in speculating about the plausibility of a suspected relationship (Kaarbo & Beasley, 1999, p. 375)

As previously detailed in sections 5.3.4, 5.4.2 and 5.4.3, biases of the author are likely to seep into the content of the case study. The data contained in the case study are not affected in any substantive way and the information gathered is seen by the researcher to be accurate and unbiased. For the purpose of this thesis and to supporting the recommendations and conclusions herein, the content of this case study is sufficiently important that any minor biases that may be inherent in the research method are offset by the value brought

Every effort has been made to keep this descriptive case study concise and pertinent. Comments have been inserted at intervals within the case study in order to explicitly link the content of the case study to the conclusions and recommendations of the thesis, as well as to the selection of particular indicators that were utilized in the research methods.

6.1.2 Scope

This case study will cover the years 2003 through 2005 and will look at activities in continuing education and, specifically executive and professional education (EPE) in Florida International University (FIU).

FIU was chosen for this case study for two reasons:

First, FIU is a fairly typical university of the state of Florida system. It consists of sixteen schools or colleges in a variety of disciplines. The College of Business Administration is responsible for business and management education. FIU is a large university serving a major market in south Florida, but it is neither the largest nor the smallest of the state universities. FIU is the fourth largest of eleven state universities.

Second, the author of this thesis has first hand experience with FIU, having been the Director of Business Development at the time of this case study. Having been in this position the author has had direct contact with all aspects of this case study, as well as access to relative empirical data.

6.1.3 Introduction

The following is a case study of Florida International University and the development of EPE in the College of Business Administration.

6.1.4 Florida International University

According to the FIU web site at www.fiu.edu, “FIU was founded in 1965 and opened for classes in 1972 with 5,667 students - the largest opening day enrollment in U.S. collegiate history. Today it has more than 38,000 students, almost 1,000 full-time faculty and more than 124,000 alumni. FIU is one of the 25 largest universities in the nation, based on enrollment. The University offers more than 200 bachelor, master and doctoral programs in 21 colleges and schools.”

6.1.5 FIU mission statement

Following is the mission statement posted on the FIU web site, www.fiu.edu.

“Florida International University is an urban, multi-campus, research university serving South Florida, the state, the nation and the international community. It fulfills its mission by imparting knowledge through excellent teaching, promoting public service, discovering new knowledge, solving problems through research, and fostering creativity.”

The CBA opened its doors in 1972, as did FIU. The CBA consist of three schools, the Chapman Graduate School of Business, the Landon Undergraduate School of Business and the School of Accounting. The CBA has an enrollment of approximately 6,000 undergraduate and 1,000 graduate students.

The mission of the CBA, as found on the website <http://business.fiu.edu> is as follows: “We create enduring educational value for our students for our alumni, and for the business and academic communities we serve.

For our **students**—whom we prepare to succeed in a rapidly changing, technology-driven global business environment;

For our **alumni**—to whom we provide opportunities for continuing professional development and a legacy that appreciates as our excellence grows;

For our **business community**—to whose economic development we contribute by providing a talented, diverse, and highly qualified pool of business professionals and leaders along with educational programs, applied research, and collaborate projects;

For the **academic community**—to whom we bring new knowledge by creating an environment that nurtures high-quality, discipline-based research and the development of future scholars.”

6.1.6 College of Continuing and Professional Studies

FIU also housed a College of Continuing and Professional Studies (CAPS), lead by a dean. This unit has since been downgraded to a center, lead by a Director. The previous dean held a doctorate in history. The CAPS offered lower level community outreach programs, as well as professional programs for paralegals and coaches.

The CAPS was deemed less than successful in achieving its goals of leading the university in community education. Although CAPS received funding from the state of Florida it was not able to cover its own operating costs, resulting in the downgrading of CAPS to a center.

The lack of success of CAPS versus the success of OPE speaks to the research indicator: Role and organization of continuing education in the areas of business and management. EPE is more successful when it comes under the direction of the business school rather than a general continuing education entity.

6.1.7 Backgrounds

The Executive Dean of CBA had a purely academic background in the field of information systems management prior to entering an administrative role. During a time of some accreditation turmoil she was appointed to the position of Interim Dean, CBA in 1997. She successfully transitioned from an academic to administrative role and was offered the position of Dean, CBA in 2000.

The Associate Dean also came from an academic background as an academic having held a position as professor in the field of international business in Europe and the United States. He did not have significant management or administrative experience prior to his appointment as Associate Dean.

The Director, OPE had an administrative background in FIU, having graduated from FIU and continuing there to secure a Master of Public Administration degree. From a role as student, active in the student government she segued directly into an

administrative position in the Center for Latin American and Caribbean Studies.

After several years in this position she joined CBA as Director of International Programs and Director, OPE in 1998, reporting directly to the Dean, CBA.

The Director, IMBA, who joined OPE as Director of Business Development had a background in international business, having been an entrepreneur for over twenty years with companies in six countries. He was awarded an MBA in international Management, and served on the Global Advisory Council of Thunderbird School of international Management before taking the position of Director, IMBA in 1999. He worked with the Director, International Programs to establish IMBA programs in France and Dominican Republic, and reported directly to the Executive Dean.

6.1.8 Formation of OPE

As the Executive Dean and the Director, OPE had no prior experience in hiring and compensating sales people they sought out the assistance of the Director, IMBA.

In early 2003 the Director IMBA and the Director, OPE met to discuss the hiring of a salesperson for OPE. After some discussion it was decided to present to the Executive Dean the formation of a dual directorship for OPE. The Director, OPE would be responsible for operations and administration and the Director, IMBA, instead of continuing in the new role of Director of Marketing and Corporate Relations for the CGSB would join OPE in the role of Director of Business Development. This arrangement met with the approval of the Executive Dean and the dual directorship was launched.

This dual-director approach inserted a director who had extensive business experience, as well as an understanding of academe, supporting the conclusions and recommendations that the EPE unit of a university should be directed by an experienced businessperson, particularly with entrepreneurial and small business management experience.

In addition to the two directors the OPE had two full-time employees to run day-to-day operations and administer the programs. Part-time help from students, as required, rounded out the staff of OPE.

The organization was called the Office of Professional Education, excluding executive education. Executive education, which had not been offered up to this point, came under the direction of the Associate Dean of the CGSB.

6.1.9 Goals of OPE

The Executive Dean had specific goals for OPE.

A primary goal, of course was to provide professional and managerial programs that would be of value to the participants and the community. But there were additional goals that were also important.

Another goal, and even a requirement was that OPE be self-sustaining financially and even contribute a surplus of 25 percent of revenue to be utilized by the CBA to support academic programs. Due to budget constraints the Executive Dean had minimal available funds to improve the quality of the College of Business

Administration. In the state system budgeted money, which came from the state capitol was earmarked and tightly restricted. Surpluses from programs run by OPE was not earmarked and therefore could be uses as funds at the discretion of the Executive Dean. Such funds were necessary for hiring superior faculty members, beyond what were allocated by the state, and for underwriting projects that the Executive Dean thought were necessary to enhance the quality and image of the College of Business Administration.

Another goal of OPE was to provide additional sources of income for faculty members who would teach in the OPE programs. These opportunities assisted the Executive Dean in attracting higher quality faculty.

In addition, OPE offered faculty members an opportunity to be in close touch with the business and professional community. This contact would pay dividends in areas of student recruitment, research opportunities and real-world experience.

6.1.10 Background of OPE

OPE had been a part of the CBA for some fifteen years, under various names. For the past several years only a few programs were offered in an open enrollment format, and several in-house programs were also conducted. This mix of programs in a successful EPE operation supports the indicator strategy theory that a variety of programs at various levels is a requisite. In the case of OPE EPE programs were offered at the managerial, executive, professional and administrative levels, although OPE was restricted from offering many programs at the executive level.

6.1.11 Programs offered in 2003

Training and Human Resource Development (THRD).

This program had been run for some fifteen years. It had not been updated significantly. The THRD program concentrated on developing the design and delivery competencies of organizational trainers. It was taught by a mix of FIU and adjunct professors. This program was typically taught evenings, once a week over 26 weeks.

Human Resource Administrator (HRA).

This program was typically run as an evening program lasting fourteen weeks. The program, in addition to teaching human resource administration basics prepared the participants for the examination for certification as a Professional in Human Resources (PHR[®]).

Project Management Professional (PMP[®]) Preparation Program.

This twenty-one day program taught participants the body of knowledge of project management, as well as prepared them to take the PMP[®] examination required for the certification. This program was taught by an FIU professor and adjunct instructors who were certified and practitioners of project management principles.

Sales Strategies and Techniques.

This two day program was developed and taught by the Director, IMBA for OPE.

In addition to open enrollment programs, in-house programs were delivered to the employees of Miami-Dade County, Florida, primarily in project management.

As OPE was a secondary position for the director little resources were spent in this area. Most resources had been spent in managing international programs, which was of a greater priority and visibility to the Executive Dean.

Marketing in OPE was traditional. Approximately 1,000 direct mail pieces were sent out to past participants and members of local chambers of commerce announcing program offerings and dates. Program flyers were also distributed at various functions and association meetings.

6.1.12 Changes to OPE after the transition

After the change of the organization and structure of OPE a new vision and direction had to be developed. The goal was to offer professional education programs in the Miami area that would assist managers and professionals in acquiring new knowledge and skills. The department had to be self funding and, optimally deliver a surplus to the CBA to be used by the dean for the betterment of the school.

OPE would continue to report directly to the Executive Dean. The CGSB would have responsibility for “Executive Education”, but the differentiation was not clearly defined. Executive Education would come under the direction of the Associate Dean of CGSB.

OPE had two co-directors; Director of Administration and Director of Business Development. The Director of Administration had responsibility for all operations supporting the delivery of programs and of developing reports for the Executive

Dean. The Director of Business Development had primary responsibility for marketing, sales and new program development. Both directors were commonly involved in new program development.

In addition to the co-directors OPE had two full-time staff members to manage delivery of the programs and accounting. The two staff members were assisted by students working on a part-time basis.

As classroom space was at a minimum in the CBA, OPE converted office space into classrooms and utilized hotel presentation rooms as required.

6.1.13 Marketing

The Director of Business Development analyzed the traditional marketing methodology of printing brochures and program flyers and then mailing these to prospects and delivering them at meetings of various business organizations. It was determined that the audience was too limited when utilizing this traditional marketing approach. The Director decided to change the marketing to be primarily online, with printed brochures being utilized only where it made fiscal and marketing sense.

Based on this analysis the OPE website was enhanced with web pages for each program and a calendar of programs made easily available. All marketing would direct prospective participants to the relevant web page.

The CBA controlled and developed web content for the school, so development and maintenance of the OPE site was fairly easy. The Director approached the webmaster of the FIU website to have a direct link to OPE from the home page of the University. As there was competition for representation on the home page the influence of the Executive Dean was sought. With her assistance OPE was granted a direct link from the University home page to the OPE site.

The primary method of driving prospects to the OPE site was to be email. The Director of Business Development acquired various email lists for direct email marketing campaigns. Some of these lists were the FIU alumni list (approximately 25,000 email addresses), past participants in OPE programs, advisory boards and other supporters of the CBA and membership lists of chambers of commerce of which the CBA was a member. All efforts were made to make the lists compliant with email spam laws in the United States.

The Director initially utilized mass email software to deliver marketing but as the quantity of emails grew an outside mass email company was utilized. As the email list approached 35,000 the mailing would slow the University system down, necessitating the use of an outside specialized company to deliver the emails. The emails had incorporated links that led to the particular programs at the OPE website.

Emails were targeted to particular professions, or could be sent to an overall database. It was found that targeting a particular segment, such as management or human resources or employees was less effective than covering all segments in the email blast. Sometimes managers would send employees, or human resource

managers would promote the program, but often an employee would bring the program to the attention of management or human resources.

The effectiveness of this marketing method supports the indicator theory that accessibility of the web site for EPE is of utmost importance. The need for complete and easily accessible online information is also supported by the questionnaire survey conducted by the Hudson Institute of Entrepreneurship and Executive Education. It was ascertained that some 75 percent of participants in EP programs get their information online.

The offerings of open enrollment programs served another purpose. If prospective clients would be aware of the types of offerings OPE is delivering they may be interested in bringing a program in-house for a group of employees. The marketing of open-enrollment programs also serves as a marketing methodology for customized in-house programs. This marketing method proved very effective as the number of requests for in-house programs grew consistently over the two years covered in this study.

Due to internal constraints online registration was not possible, so a link to a downloadable registration form was provided. OPE was allowed to accept Visa, MasterCard and American Express cards for payment. Company or personal checks were also accepted and could be sent in with the registration form.

The Director of Business Development also attended numerous organizational meetings to network with potential participants or companies interested in in-house programs.

Besides attending for networking and exposure purposes the organizational meeting provided an opportunity to increase the addresses on the email marketing list.

6.1.14 Operations

Operations in OPE involves registering participants for programs, notifications, collecting payments, coordinating with instructors, setting up classrooms and other functions that ensure a smooth running of programs. The Director of Administration, with her staff is responsible for all aspects of delivering professional programs.

The Director of Administration also has the responsibility of planning and scheduling programs, with coordination with the Director of Business Development. There must be sufficient offerings of open enrollment programs, but not too many as to dilute attendance.

To insure participant satisfaction the processing of applicants and the delivery of programs must be run in a professional and organized way. Processes were set up by the Director of Administration to achieve the end of insuring customer satisfaction. Originally, registrations from participants were typically received via mail or facsimile. A new form was developed to enable registration over the telephone. Any member of the OPE staff could take registration, with credit card information over the telephone. Any time a prospective participant called for information they were asked if they would like to register at that time. This method

helped to raise the number of participants significantly. OPE could accept payment by Visa, MasterCard or American Express. The credit card information would be delivered daily to the responsible person in the CBA and payment was processed in a matter of a few days. If a payment did not go through the participant would be contacted, hopefully prior to the date of the program.

As technology improved this method of registration was changed to allow prospective participants to register directly online. Credit card payment could be made online, also. The registration process allowed data to be fed into a database that allowed for automatic email of confirmations, directions and reminders to be sent to each registrant. This modification made registration more transactional and reduced the time spent by staff on these processes.

Organizations known to OPE could request an invoice for participation in lieu of credit card payment. In house programs were typically paid against invoice at the end of the program.

Individual participants in longer programs, such as Project Management could make arrangements for two or three payments over the course of the program. In fact over 80% of participation was paid for by the organization.

6.1.15 Programs and Instructors

Immediately after the reorganization of OPE a meeting was held with the directors and the Executive Dean. The goals of the Executive Dean were multifold:

- To have a department that would be financially self-sustaining and delivering a surplus as quickly as possible
- To gain favorable exposure to FIU and the CBA
- To offer opportunities to faculty members to become active in OPE and increase their income
- To deliver to the community worthwhile programs that would offer continuing professional and management education, while staying out of the realm of Executive Education

With these goals in mind the directors began a strategy process by evaluating existing programs and considering new offerings.

6.1.16 Modifications to existing programs

Training and Human Resource Development (THRD).

This program had been run for some fifteen years. It had not been updated significantly. The THRD program concentrated on developing the design and delivery competencies of organizational trainers. It was taught by a mix of FIU and adjunct professors. This program was typically taught evenings, once a week over 21 weeks.

As this program had been in existence for over fifteen years it was determined that the market existed for this content. Several past and current participants were interviewed and it was determined that:

- The program was too long
- Several participants were interested more in the instructional design portion of the program than the instructional delivery

In response to these findings the THRD program was split into two parts, each of a twelve evening duration: THRD Instructional Design; and THRD Instructional Delivery.

This program had a very specific audience of Human Resource professionals engaged in training and development, or people wishing to enter the field of training and development. The instructors were non-FIU faculty who were experienced in core components of the program and had been teaching in the program over a considerable period of time. They were compensated at \$125 per hour.

The THRD program was being offered at \$1,795 per participant. As this program was typically paid for by an employer it was decided that the fee for the program could be increased overall and allocated to the two parts of the program. The fees were increased to \$995 per twelve week program. As the instructors were paid \$375 per evening session the break even over variable costs was approximately four participants.

Human Resource Administrator (HRA).

This program was typically run as an evening program lasting fourteen weeks. The program, in addition to teaching human resource administration basics prepared the participants for the examination for certification as a Professional in Human Resources (PHR®).

This program was determined to be effective in its current format. The program consistently drew a good audience of fifteen to twenty participants. Materials were,

in some cases a bit dated, so instructors were contacted to update their modules. All but one of the instructors were practicing human resource professionals holding the PHR[®] designation and were paid a fee of \$125 per hour. Evening classes were three hours long, so compensation was \$375 per evening session. One instructor of three modules was a CBA faculty member and chair of the Management Department. His compensation was higher at \$600 per session.

The fee per participant for this program was \$995, so the revenue per three-hour session, per participant as \$71. Based on variable cost was the break-even point per session would be about six when adjuncts were instructing and eight when the faculty member was teaching.

Project Management Professional (PMP[®]) Preparation Program.

This twenty-one day program taught participants the body of knowledge of project management, as well as prepared them to take the PMP[®] examination required for the certification. This program was taught by an FIU professor and adjunct instructors who were certified and practitioners of project management principles.

This program had been developed by a professor at FIU CBA who was also a certified PMP[®]. The program was taught by a team including the lead professor and four additional instructors who held the PMP[®] certification. The professor was paid a fee of \$2,000 per day of instruction and the adjunct instructors \$1,200 per day. The program typically drew ten to fifteen participants and was offered three times a year.

Numerous current and prior participants were interviewed and it was determined that the modules in this program were somewhat repetitive. In conjunction with the lead professor and other instructors it was decided to reduce the number of days of the program to eighteen. The program was reformatted to fit into this new timeframe. Shortening the program would also make the program more marketable. Through research and comparing the programs with others offered in different parts of the United States it was determined that the program was under priced. The fee for the program was increased from \$1,495 to \$1,895 and the duration of the program was cut increasing the opportunity for a profitable program. As this program was for the most part paid for by employers it was surmised that sufficient elasticity existed to allow for the increase in the fee.

Sales Strategies and Techniques.

This two day program was developed and taught by the Director, IMBA for OPE. This program was deemed deliverable as is. The price was raised from 295 to 395.

The directors met with the Executive Dean to outline a strategy for program development. One of the goals was to offer an opportunity for faculty members to deliver OPE programs. This was discussed and it was decided that the Director of Business Development meet with the chairs of the various academic departments to determine which faculty members might be interested in and qualified to teach for OPE

As the two certification preparation programs currently offered by OPE were a continuing success it was decided to explore other certification programs that might be worthwhile offering in the South Florida market. The Miami market is heavily dominated by international banks, tourism, and Latin American headquarters for all types of companies and organizations and entrepreneurial companies.

It was also decided to change the marketing strategy from print to web based driven by email marketing. The Director of Business Development took the lead in building the necessary database and finding suitable bulk email programs to be used in delivery. For specialized programs, such as Certified Financial Planner public radio adds would be used to increase awareness, but in a limited way.

As local community colleges offer lower level skill programs it was strategically decided to offer programs targeted at management and professionals. This market was only minimally covered by local universities. The only other major universities in the Miami market were University of Miami and Nova Southeastern University, and neither of these had offerings in the management area. University of Miami had a Certified Financial Planner (CFP[®]) program but no other programs targeted at professionals.

Up until this time only three faculty members had taken part in OPE training, taking part in programs in project management, human resource management and sales. As one of the goals of OPE was to provide opportunities for faculty to earn additional fees and interact with the business community faculty members were approached to

determine interest in training for OPE. Unfortunately very few were interested and qualified.

Discussions with faculty members uncovered several reasons why few faculty members would take part in OPE training. A majority of faculty members had little or no experience in an organization outside of academia. They either felt intimidated by or not interested in interaction with managers and executives. A significant number of faculty members had consulting practices outside the university and were not interested in taking time away from those practices to train for OPE. Others were actively involved in research and had little available time.

The presentation skills required for training business people are somewhat different from traditional university classroom training. OPE training requires more engagement with the participants than is required for teaching students. Adult education is different from traditional student education. One faculty member explained that executive type education requires two parts learning and one part showmanship and entertainment. People taking part in managerial and professional education want to leave the session with new skills that can be applied quickly. Theories are not as important as practical skills gained from the training. Many university professors tend to be more theoretical in their teaching style and are not as effective at teaching skills to adult learners.

One additional faculty member was recruited to teach a two-day course in finance and accounting for non-financial managers. This new course was successfully launched and was offered twice a year.

6.1.17 New program offerings

Over the next year numerous programs were added to the offerings. As additional faculty members were unavailable outside specialists were sought to design and teach new programs. Programs were added in line with the strategies that had been developed. New programs that were added were:

Developing a Strategic Business Plan.

This professional education program provides an overview of strategic research and analysis, leading to the planning concepts and methods needed to develop a strategic business plan.

Program topics include:

- An overview of the strategic planning process
- Creating corporate and business level mission and vision statements
- Determining achievable and motivating business objectives
- Conducting SWOT analyses
 - What is an appropriate method for collecting macro and industry data?
 - How do you assess organizational strengths and weaknesses?
 - How do you interpret and organize the data once it has been collected?
- Creating workable strategies at different levels of a business
- Incorporating objectives and strategies into a practical business plan
- Developing appropriate measurements to better understand operational results and to facilitate adjustments of the strategic business plan

Financial Plans and Budgets. This one-day course offered students a practical grounding in financial reporting, analysis, and decision-making that is relevant to any management function. Participants gain a working knowledge of key financial principles, processes and terminology essential to develop forecasts and use budgets to control and measure results.

Extraordinary Administrative Support. Every business department requires outstanding administrative support in order to operate efficiently and profitably. This practical one-day program is designed for administrative managers, executive assistants and supervisors who are responsible for supporting departmental managers and ensuring smooth day-to-day business operations.

Customer Relationship Management. The CRM Online Professional Certificate Program was developed to give participants access to the latest and most proven CRM methodologies, concepts, tools, and practices. This five day program presented both technological and operational aspects of customer relationship management.

Managing the Media. Managing the Media is a fast-paced, one-day program taught by media experts. The program focuses on how to communicate with the media whether your objective is to interest the press in your story or to minimize potential public relations damage during a crisis. The Managing the Media program teaches you how to use appropriate strategies and techniques for managing issues with the media.

Presentation Skills for Managers

This program focuses on a practical step-by-step process for developing effective presentations covering both message content and delivery. The course emphasizes practice to ensure that you truly excel in your next speaking situation whether it's in the elevator, a conference room, or a large auditorium. Learn techniques to become a polished public speaker who can effectively present and sell his/her ideas to an audience of any size.

Developing a Leadership Mindset

This program is designed for those interested in developing the foundation necessary for developing influence and a leadership presence. It is useful for those in supervisory and managerial positions, project and program managers as well as individual performers who understand the importance of demonstrating leadership skills personally and professionally. A participant will understand the foundation to: empower yourself and your staff, begin the journey to develop your leadership skills, become more effective at influencing others, learn how to work with groups and teams to accomplish organizational objectives, learn the importance of embracing change, understand how to become effective in an ambiguous environment, and develop the skills necessary to move from a manager or supervisor to a leader.

Decision Making for Managers

One of the key challenges that face organizations today, is their capabilities in identifying the key operational problems, in coming up with the ultimate solutions,

and in proceeding with the implementation process. As simple as it may sounds, the inability of the organization to resolve their challenges, raise the operations cost and increase the level of frustration. Participants learn:

- To define the problem and its overall characteristics
- To outline the problem-solving and the decision-making model
- To describe the criteria for a successful decision-making outcome
- To evaluate ways of gathering information
- To understand the steps to team problem-solving

Advanced Management Program

This program is suitable for experienced managers who are looking for a practical foundation in current business theory and practice; executives or business graduates who need to update their business skills and education; those who want to broaden their understanding of how functional business areas interrelate; and professionals considering pursuit of a graduate degree and wanting an overview of the university's business program.

In addition to these programs, and in keeping with strategy, several certification preparation programs were added:

Certified Treasury Professional[®]

The Certified Treasury Professional[®] (CTP) certification, sponsored by the Association for Financial Professionals (AFP), is recognized as the global standard of excellence in corporate treasury and finance. With new and changing regulations

concerning financial reporting and the complexities of business on a global scale, more employers are demanding that persons in financial positions be AFP certified.

Certified Management Accountant[®]

Globalization and standardization combined with more stringent financial reporting requirements, have resulted in a continuum of change in the practice, rules, regulations, ethics, and execution of managerial accounting and financial strategy in all areas of an organization. Over the past several years, the role of management accountants and financial managers has evolved significantly. Today's managerial finance and accounting professionals are internal consultants and business analysts. They work on cross-functional teams and are involved in strategic decisions.

The Institute of Management Accountants' Certified Management Accountant (CMA) Certification Program addresses the needs of managerial finance and accounting professionals as they meet the challenges of the new corporate accounting environment.

Certified Financial Planner[®]

Through a relationship developed between the Executive Dean and a university partner company an attempt was made to offer certification preparation training for Information Technology (IT) professionals, particularly in the area of internet security. A secure computer laboratory was established and programs for certification in Microsoft and Cisco were offered. It was quickly determined that this offshoot of executive education was not a competency of the CBA nor OPE. These programs were not successful, in spite of significant resources being spent in

ware, software and marketing. These programs were abandoned after several months.

6.1.18 Pricing

An informal survey was conducted of corporations and organizations in the south Florida area and it was determined that the average allocation per management employee for non-credit training was between \$3,000 and \$5,000 per year. With this in mind all longer programs were priced between \$2,000 and \$3,000, allowing a participant additional resources to take other programs.

The THRD program, which was long and under priced was divided into two parts and the price raised to fit with the budgetary guidelines indicated in the previous chapter. Each part of the program was modified to six days (twelve evenings) and was priced at \$1,895.

The PMP preparation program was shortened to eighteen days and priced at \$3,995. This pricing was determined by comparison with competitors. This program brought to light a problem inherent to executive education when a faculty member has responsibility for program management.

A goal of OPE is to be profitable, so each program must be analyzed to insure profitability. The goal of a faculty member may be to maximize potential income from delivering the program. This became evident in the course of reviewing the PMP program with previous participants. It was determined that the program was repetitive and could be greatly reduced in length. About half of the sessions were

delivered by the faculty member at a rate of \$2,000 per day. Adjunct instructors were paid a rate of \$1,000 per day. To maximize income from the perspective of the faculty member it was better to have as many sessions as possible. From the vantage point of profitability for OPE it was better to maintain or raise the fee for the program and shorten the length. It was also advantageous to balance goals by increasing the number of sessions taught by adjunct instructors.

It was determined that, for new programs the management of the program remain with the OPE directors rather than faculty members. Faculty could work in program development, and may be compensated for this on a one-time basis, but ownership and management of the programs must reside with OPE.

For open enrollment programs a pricing structure of \$400 (\$395 for marketing purposes) was a target per day for management level programs. Through interviews with managers of local organizations this fee was determined to be competitive and acceptable in the south Florida market. Programs offered by institutions in more developed market areas such as New York and Washington D. C. tended to be priced about 50% higher, and the American Management Association offerings were typically a bit higher yet. But, with the south Florida being less developed (the American Management Association, which offers programs nationwide did not even bother to offer programs in Florida) it was determined that \$400 per day was on target. For lower level programs, such as Extraordinary Administrative Support a fee of \$295 per day was established.

At a fee of \$400 per day for programs led by an FIU professor at \$2,000 the breakeven point to cover faculty and material costs would be six students. An attendance target of a minimum of ten participants on average per program was established to ensure overall profitability. As the overhead costs of the OPE was approximately \$250,000 per year revenues of \$500,000 per year would deliver breakeven.

In addition to open-enrollment programs OPE offered programs in house for companies and organizations. The local county government of Miami-Dade county had long been a client of OPE. A pricing structure was also developed for in-house programs based on a per-day fee. The basic fee would be \$4,000 per day, plus a per participant fee if miscellaneous costs such as books or food had to be included.

Overall the goal of the directors was to provide a surplus of 25% of revenue that could be utilized by the Executive Dean in the CBA.

6.1.19 Summary

In the first year of operation after the reorganization and new strategies OPE had revenue of approximately \$800,000 with a surplus of approximately \$150,000. In the second year of operation revenues exceeded \$1,200,000 and a surplus of approximately \$250,000 was generated.

Over the course of each of these years new programs, as described above were developed and delivered. The marketing methodology consisting primarily of email announcements of program offerings proved to be even more successful than

anticipated. The web site was enhanced to allow for easy downloading of registration forms. An online registration process was initiated late in the second year, allowing participants to systematically enroll in and pay for programs. Major credit cards were accepted.

The email marketing system facilitated audience expansion. Email messages are easily forwarded to additional members of companies and organizations, or to friends who may have an interest in the topic. Many companies and organizations forwarded the emails to all employees or members greatly expanding the list of recipients. Also, the email list was continually being maintained and augmented. Participants in OPE programs as well as in other events hosted by the CBA were added regularly. The FIU alumni list was updated quarterly.

Initially the Director of Business Development segregated email lists by job function or profession. It was soon discovered that this segregated approach neither required nor effective. Three functional areas utilized were employee, senior management and human resources (HR). In fact an email sent to an employee, if it generated interest would be presented to management or HR for approval. Emails would be shared among employees and departments, making segregation of marketing a detriment rather than an asset.

The university also provided support, at the urging of the Executive Dean to include a direct link on the FIU homepage to OPE. It was determined through informal interviews with participants that an important element in marketing is to make it as easy as possible for prospective participants to get to the program webpage of

interest to them. With the direct email marketing this was very straightforward as a link was embedded in the email body that would take the prospect directly to the program webpage. Another link was included directly to the registration form. Later this link would take the prospect directly to the online program registration page.

For prospective participants seeking to visit or return to the site, but without the benefit of having received an email marketing message finding the OPE site had to be made as easy as possible, hence the need for a direct link from the FIU homepage to the OPE website. The CBA website was under the direct control of the Executive Dean, so having links there was an easy matter. To have a link on the FIU homepage was more difficult. The support of the Executive Dean facilitated the deployment of this link.

The content and format of the email marketing messages was studied in depth by the Director of Business Development. The emails must be attractive and yet kept simple to avoid their being mistaken for spam and relegated to the prospect's junk mail file. The directors worked together to design an effective email template. The Director of Administration, with stronger artistic and visual skills assisted with template design, while the Director of Business Development, with a stronger technology background worked to ensure simplicity and clarity of form, as well as to keep the email using as few bytes as possible.

The dual-director approach worked very well. This approach would not be normally recommended but the past collaborations between the two directors mitigated

problems. The two directors had definite and separate responsibilities and yet had to work as a team to be successful. In this particular case the approach worked with virtually no conflict or problems.

The Executive Dean was aware of the entrepreneurial successes and background of the Director of Business Development and took a hands-off approach in managing OPE. The directors met with the Executive Dean monthly to update her on progress and statistics. New ideas were discussed to enlist the support of the Executive Dean. In cases where assistance was needed by the directors in maneuvering or modifying the bureaucracy of the university the Dean was always available and willing to assist. Fortunately the senior management of FIU supported the efforts of OPE and made changes as requested and required to give the endeavor an opportunity for success.

6.1.20 Strategy

The strategy of offering a blend of programs was also successful. In addition to programs targeted at the general management audience, a selection of programs designed to lead the participants to a particular certification were also offered. Besides this programmatic blend strategy a mix of programs for different levels of management was also incorporated. Lower level programs targeted to new managers were offered alongside higher level programs designed to improve skills and expand knowledge of experienced managers. The strategy also incorporated evening, Saturday and weekday programs to allow for participants to choose the venue that worked best for them.

Another element of the strategy of blending programs was the approach to types of programs. Some programs, particularly programs leading to certification are very functional in content. In addition to the certification based programs, offerings such as Finance and Accounting for Managers are typical of a functional program. Functional programs address a particular functional area of an organization, such as finance or marketing. In addition to these functional area programs many programs addressed “soft skills” or socio-behavioral areas such as leadership and conflict management. It was found that prospective participants needed to improve their knowledge and skills in both functional and socio-behavioral areas.

Programs also had to be blended in order to fit with the motivations and strategies of the participants. Through informal questions in and out of the classroom it was determined that virtually all participants were involved in EPE training for career advancement purposes.

Participants fell into several categories. A smaller percentage of the students, perhaps around 20 percent were taking programs in order to move into a new professional or career category. The HRA program, as an example was seen by many participants as a way to segue into the HR functional area. These participants often had no prior experience in HR, or were in a small company where HR was only a small part of their responsibility. These participants saw the HRA program as opening a door for them into a new career.

Other programs that were seen as avenues to new careers were also certification preparation programs leading to new careers in project management, financial

planning and treasury management. A non-certification preparation program that was also seen as a segue into a new career was THRD.

A second and even larger segment of participants took EPE programs to advance their careers by acquiring new knowledge and skills in their chosen career or profession. These participants were equally open to advancing their functional area knowledge and skills as improving soft skills development. As an example, people involved in sales wanted to improve on their selling strategies and techniques, and project managers wanted to advance their understanding of the project management body of knowledge.

Another motivator for participants to take part in EPE was to move into management. These participants were typically professionals who saw a better future in managing other professionals in their particular career. An example would be a nurse who wants to become a supervisor, a police officer who wants to become sergeants, or a salesperson who want to be sales manager. The set of skills and the knowledge required to be a manager differs greatly from the skills and knowledge required to be a successful practitioner. The knowledge and skills required to make this transition were available in EPE programs.

Another group of management level participants were motivated by the desire to advance their management careers by moving into more senior positions.

Functional area programs such as Finance and Accounting for Managers would serve to introduce managers to areas of the organization other than their own. This cross functional knowledge was seen as important to moving into higher positions in

an organization. Also, leadership programs were popular with managers wishing to move up in the organization. A presentation skills program could help managers to be seen as more professional in presentations that would be a crucial measurement in the advancement selection process.

Yet another group wanted to be recognized for their experience, knowledge and skills. Certification preparation programs were very popular as a means to exhibit a level of mastery of a certain area. These certifications were portable, in that participants had the recognition which would go with them when they changed organizations.

These groups of motivators are not necessarily mutually exclusive. A participant may be interested in advancing a career and becoming certified, as an example. In the two years of experience in OPE the directors encountered no participants who took EPE programs only out of interest, with none of the motivations listed above.

6.1.21 Conclusions

The success of OPE over a two year period from 2002 – 2005 demonstrated the veracity of the strategies employed by FIU and OPE. The movement of marketing from the traditional method with catalogs and brochures to email driven marketing with an easy to find and navigate website was proven to be an effective methodology. The fact that the Director of Business Development had an entrepreneurial business background, rather than academic, HR or other was instrumental in the success of OPE, which had to be managed a profit center.

The support of the Executive Dean was crucial to the success. But just as important was that she did not micromanage OPE and allowed the directors great freedom in implementing their strategies.

The strategies involved with programs to be offered and the program mix of programs to support the local market were well targeted and led to high participation rates and reasonable margins. Costs were controlled by the Director of Administration and processes were developed to insure satisfactory delivery of programs and back-office operations.

In 2005 the Director of Operations was offered a position of Executive Director of Executive Education and Educational Outreach at the largest private university in the state of Florida, Nova Southeastern University (NSU) in Fort Lauderdale. The Director of Administration joined him shortly thereafter as Director, Hudson Institute of Executive Education. The Executive Director had responsibility for two additional institutes.

Together the directors implemented the same strategies and methodologies they had developed at FIU, building on these in such areas as online registration.

The Hudson Institute had been managed by a person from a corporate HR background. It had been losing money consistently for years. Under the new approach success came quickly and the revenues and surpluses grew over the next two years. No funding by NSU was required in launching the new Executive Education model, as cash flow became positive in the third month. In the first year

revenues exceeded \$700,000 and a surplus of \$100,000 was generated. In the second year revenues grew to \$1,200,000 and a surplus of over \$300,000 was generated.

Section 2 - Reasons for participation in EPE

6.2.1 Introduction

Chapter six, Section 2 is an analysis based on descriptive statistical evaluation of the results of the questionnaire (Appendix B) administered by the HIEEE. This questionnaire included research variable to be used for future research and evaluation as well as quantitative data. This section addresses the quantitative data collected in Question 5 of the aforementioned questionnaire.

These questions gauge the motivation of participants for taking the particular EPE program. Question 5 is:

Please rank the following statements as to their influence in motivating you to take part in this continuing education program.

1. Increase skills and knowledge in my current career/profession
2. Prepare for transition to a different career/profession
3. Enhance skills and knowledge to advance in current career/profession
4. Move into a management/leadership position
5. Be recognized as an expert in my current career/profession
6. Other. Please explain.

Participants were asked to rate each of these on a scale of 0 through 5, as follows:

0. Not applicable
1. Not important in motivating me to take part in this program

2. Low importance, but somewhat affected my decision to enroll in this program
3. Important. This knowledge, or these skills are important to my future success
4. Very important. Not having these skills or this knowledge will be detrimental to my career development.
5. Highest importance. Absolutely essential for continued success

A total of 99 participants took part in this survey.

6.2.2 Increase skills

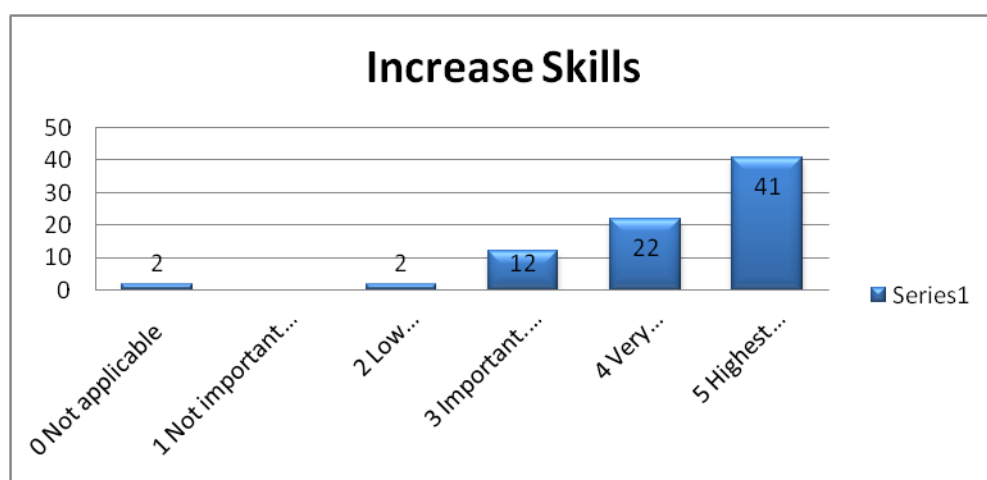
As evidenced in figure 6.1 fully seventy-five percent of respondents were involved in EPE programs to increase skills and knowledge in a current career or profession. While twenty participants did not rank this item, or ranked it as not applicable, only two respondents rated this reason as of low importance.

In the rapidly changing and advancing world of management and business, skills and knowledge must be constantly improved in order to remain current and competitive.

This high ranking for this question was expected based on the research presented earlier in this thesis.

Figure 6.1 Increase skills

Increase skills and knowledge in my current career/profession	
0 Not applicable	2
1 Not important in motivating me to take part in this program	
2 Low importance, but somewhat affected my decision to enroll in this program	2
3 Important. This knowledge, or these skills are important to my future success	12
4 Very important. Not having these skills or this knowledge will be detrimental to my career development.	22
5 Highest importance. Absolutely essential for continued success	41



6.2.3 Prepare for transition

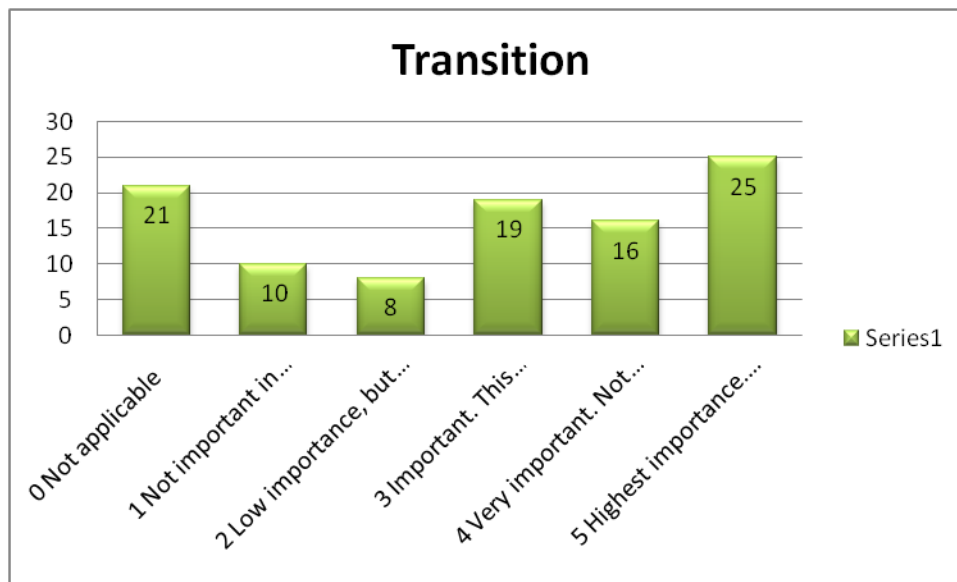
A somewhat surprising result was the response to the question relative to preparing for transition to a different career or position. As can be seen in figure 6.2 fully sixty percent of respondents ranked this reason as important or higher. Only forty percent ranked this reason for taking EPE programs as of low or no importance, or not applicable.

In view of the rapid changes in technology leading to unforeseen changes in productivity many careers and jobs are being outmoded and eliminated each year, as outlined earlier in this thesis. It had been estimated that ten percent of job descriptions are disappearing at an annual rate. It appears from this research that participants are aware of this trend and want to prepare themselves in case their position or profession becomes superfluous.

Another possible reason for the preponderance of “important” responses to this question is that many participants are interested in changing to a new career path or profession for personal reasons. Further research must be conducted to determine what factors are involved in a high number of participants being interested in changing careers or professions.

Figure 6.2 Transition

Prepare for transition to a different career/profession	
0 Not applicable	21
1 Not important in motivating me to take part in this program	10
2 Low importance, but somewhat affected my decision to enroll in this program	8
3 Important. This knowledge, or these skills are important to my future success	19
4 Very important. Not having these skills or this knowledge will be detrimental to my career development.	16
5 Highest importance. Absolutely essential for continued success	25



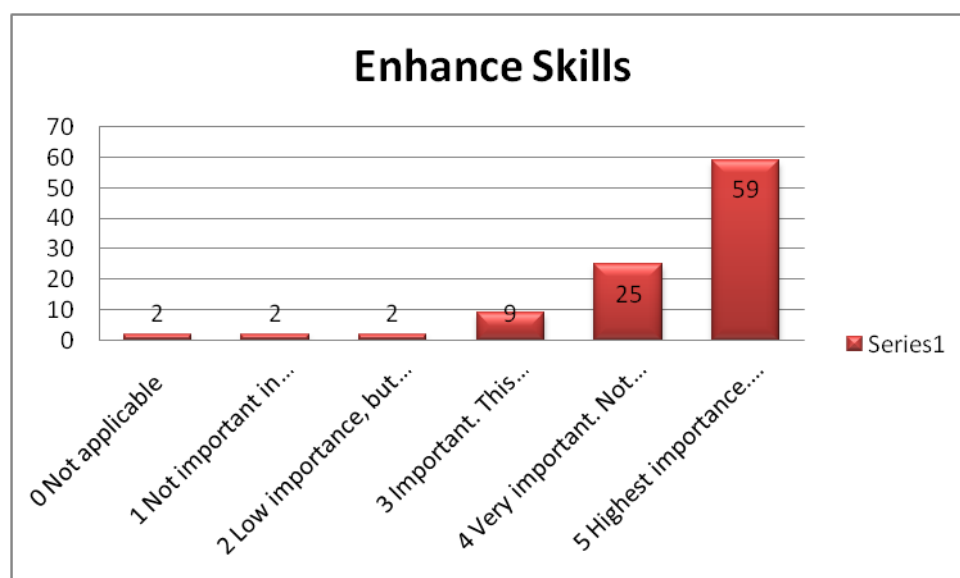
6.2.4 Enhancing skills and knowledge

Enhancing skills and knowledge to be able to advance in a current career or profession had the strongest positive response with ninety-three percent of the participants indicating that this reason was an important motivator. Fifty-nine percent of the participants ranked this reason as being of highest importance.

Lifelong learning has become an important part of the education delivered through universities, as universities are generally recognized as the repository of higher learning. These participants recognize the value of EPE in supplying the knowledge and skills required to advance.

Table 6.3 Enhance skills

Enhance skills and knowledge to advance in current career/profession	
0 Not applicable	2
1 Not important in motivating me to take part in this program	2
2 Low importance, but somewhat affected my decision to enroll in this program	2
3 Important. This knowledge, or these skills are important to my future success	9
4 Very important. Not having these skills or this knowledge will be detrimental to my career development.	25
5 Highest importance. Absolutely essential for continued success	59



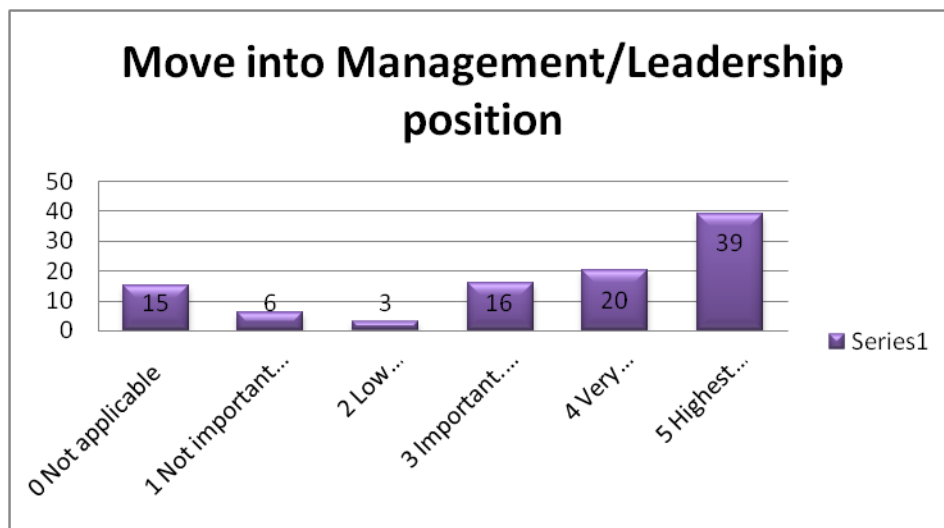
6.2.5 Move into management

Twenty-four percent of the participants were not motivated, or had low motivation to take an EPE program to help them to move into management positions (Figure 6.4). While some of these respondents may have no desire to move into management or leadership it is more likely that a large percentage of these respondents are already in such a position. Further research is needed to determine the reasons why a significant percentage are not motivated to take EPE programs to move into management and leadership positions.

On the other hand, for seventy-five percent of respondents moving into a management or leadership position was important. Participants see the value of taking part in EPE programs in order to learn the skills necessary to advance into higher positions in the organization. The skills and knowledge necessary for being successful in a support role or a functional area are not the same skills that will make a person successful as a manager or leader. Also, having successfully completed a particular EPE program is a demonstration to organizational leaders of the participant's desire to move up as well as certification that he or she has learned necessary skills.

Figure 6.4 Move into management/leadership

Move into a management/leadership position	
0 Not applicable	15
1 Not important in motivating me to take part in this program	6
2 Low importance, but somewhat affected my decision to enroll in this program	3
3 Important. This knowledge, or these skills are important to my future success	16
4 Very important. Not having these skills or this knowledge will be detrimental to my career development.	20
5 Highest importance. Absolutely essential for continued success	39

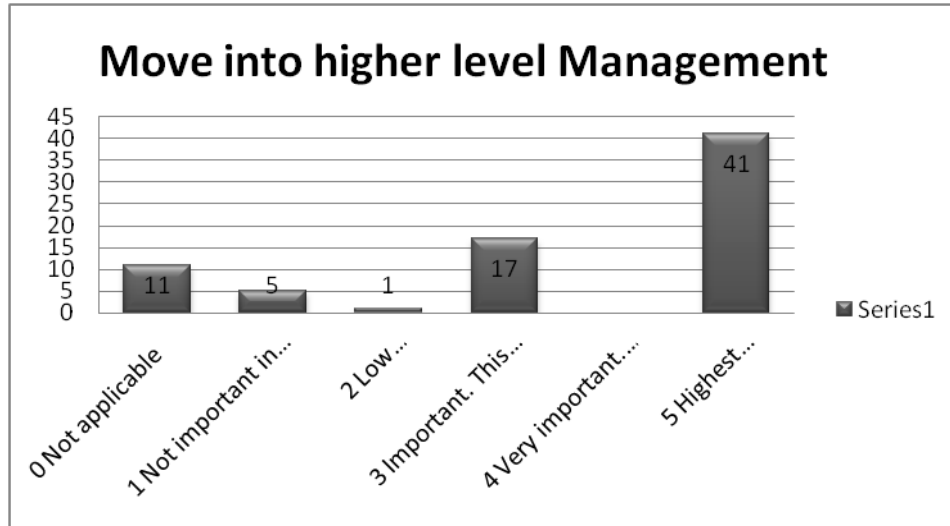


6.2.6 Move to higher level

Forty-one percent of participants ranked moving to a higher level management or leadership position as of highest importance. Fifty-eight participants felt that this was an important motivator to taking EPE programs.

Figure 6.5 Move to higher level

Move to a higher level management/leadership position	
0 Not applicable	11
1 Not important in motivating me to take part in this program	5
2 Low importance, but somewhat affected my decision to enroll in this program	1
3 Important. This knowledge, or these skills are important to my future success	17
4 Very important. Not having these skills or this knowledge will be detrimental to my career development.	
5 Highest importance. Absolutely essential for continued success	41



6.2.7 Gain recognition

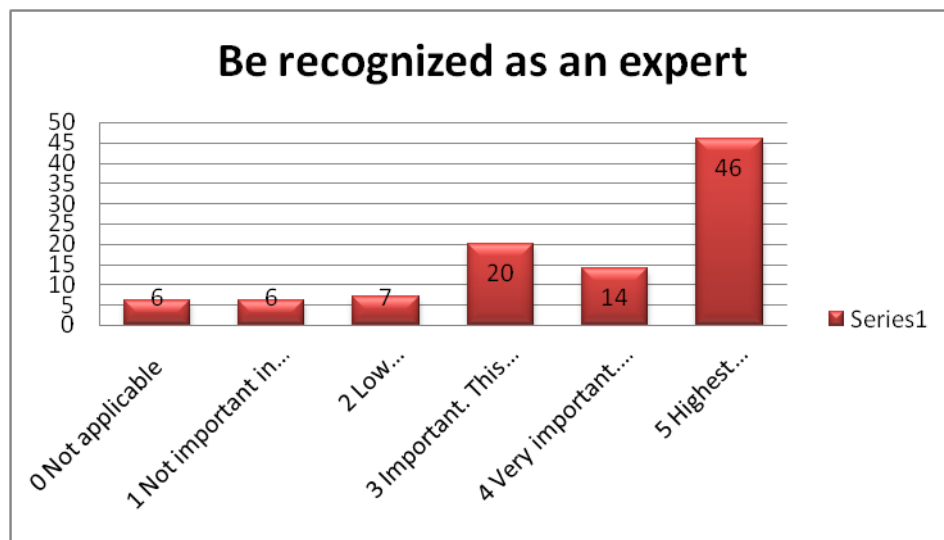
Recognition was considered important or greater by eighty percent of participants.

The HIEEE prints certificates of completion, suitable for framing for each participant in each program. The positive response to this question accentuates the desire for professional recognition.

These responses support the concepts presented in this thesis about the importance of certification preparation programs as an integral part of the EPE offering.

Figure 6.6 Recognition

Be recognized as an expert in my current career/profession	
0 Not applicable	6
1 Not important in motivating me to take part in this program	6
2 Low importance, but somewhat affected my decision to enroll in this program	7
3 Important. This knowledge, or these skills are important to my future success	20
4 Very important. Not having these skills or this knowledge will be detrimental to my career development.	14
5 Highest importance. Absolutely essential for continued success	46



6.2.8 Other

Only four participants included additional reasons for taking EPE programs, as listed in table 6.2.7. Two of these refer to personal development. One specifically refers to certification from a professional association, while another desires enhanced communication skills.

These findings substantiate the appropriateness of the selection of reasons for taking part in EPE training.

Figure 6.7 Other

Other
Personal intellectual enhancement
Grow personally and professionally
Obtain certification from a professional association
Enhance communication skills in the workplace.

Section 3 – Universities in the state of Florida

6.3.1 Introduction

Chapter 6, Section 3 is an evaluation of four universities in the state system and three private universities in major population areas. These evaluations were performed from February through June 2006. They represent a point-in-time analysis which may no longer reflect the same results at different points in time. The particular universities were chosen due to their locations in or near major population and business areas. The universities chosen are also the larger universities. Larger universities that are in or near business and population centers are more likely to provide EPE training. This type of training is more valuable and the demand will be greater in the above described locations. The author purposely did not review the support for EPE at the two universities with which he was and is affiliated. The case study in this thesis describe in detail the approach these universities take in regard to EPE.

6.3.2 University of Florida (www.uf.edu):

The University of Florida is the oldest of the state universities, founded in 1853 as Eastern Florida Seminary in Ocala, Florida. The institution became a university in 1905 and moved to Gainesville in 1906.

The University of Florida division of Distance, Continuing and Executive Education (DCE) is accessible from the main page of the website. The Dean of Continuing Education is Dr. James W. Knight. The Director of the Leadership Institute is Mr. Ron Kirsch. A Google search revealed no additional information on either party. The DCE is primarily involved with conducting conferences and providing training particularly in the area of health care. Incorporated into the DCE is a Leadership Development Institute, which offers programs in Executive Education.

The Executive Education offerings consist of open enrollment programs and customized programs. The open enrollment programs fall into two categories: Project Management and Process Management. The following courses are offered in these areas:

Project Management: Project Leadership and Communications, a two-day program

Project Management: Tools & Techniques, a three day program

Achieving Six Sigma Performance, a two-day program

Emerging Role of the Process Manager

Facilitating High Performance Teams

Process Mapping

Process Value Analysis

Using the Balanced Scorecard

It should be noted that none of these programs are offered in Gainesville. The Project Management programs are offered in Jacksonville, Orlando and Atlanta, Georgia, while the Process Management programs are offered in Tampa, Orlando,

Miami and Fort Lauderdale. Also, the Process Management programs are presented entirely by instructors who are officers of the Orion Development Group, which also offers these programs through Michigan State University, Pepperdine University and Rutgers University.

It is not surprising that the business-related offerings of the University of Florida are scant, as the Gainesville location offers no significant business community. The primary business of the area is in medical research.

6.3.2a In summary:

A. Rating: 1—As far as can be ascertained thus far, the University of Florida has no mention of serving the need for continuing high-skills education in the field of business and management

B. Rating: 3—The offering of business and management education is delivered through the Division of Distance, Continuing and Executive Education, not through the Warrington College of Business.

C. Rating: 1—While the university seems to have an active strategy relative to healthcare industry continuing education, due to the research center which has developed around the university, there is no discernable strategy relative to business and management education.

D. Rating: 3—The DCU offers programs in project management and process management. The Leadership Development Institute offers programs which appear

to be more consulting based than training based. Little information is offered on this Institute.

E. Rating: 1--The only certification preparation training offered is for Project Management Professional.

F. Rating: 3--There is a link to the DCE from the main page of the UF web site.

6.3.3 Florida State University (www.fsu.edu):

Florida State University (FSU) is located in Tallahassee, the capital of the State of Florida. Tallahassee has approximately 250,000 inhabitants and is primarily a center of government. FSU hosts some 35,000 students on three campuses.

There is no link to continuing education on the main page of the FSU website. Continuing education is divided into two areas, the Department of Continuing Education and Public Outreach, which is an integral part of the university, and the DeSantis Center for Executive Management Education.

The Department of Continuing Education and Public Outreach operates the Center for Professional Development and offers numerous courses both online and in Tallahassee. The bulk of these courses are computer technology-oriented or lower skills programs. Two programs lead to higher skills certificates. A Certified Financial Planning course is offered in on online mode, and a Certified Public Manager program is listed on the website, but is not included in the class schedule. The Department of Continuing Education and Public Outreach is headed by a

Director, William Lindner. Mr. Lindner has a background in government as secretary of Florida's Department of Management Services. No additional information is available on the web site and an Internet search does not reveal information.

The DeSantis Center for Executive Management Education offers academic degrees in business, and also offers an Executive Management Program, a five-day program which is only offered for companies in-house. The Director of the Center is Dr. Bill Anthony, about whom no background information is available on the web site and an internet search does not reveal information.

Given the location of FSU in the state capitol and the low population, it is not surprising that the offerings in the area of business and management are sparse.

6.3.3a In summary:

A. Rating: 1—As far as can be ascertained thus far, Florida State University has no mention of serving the need for continuing high-skills education in the field of business and management

B. Rating: 3—An online program in Certified Financial Planning is offered through the Department of Continuing Education and Public Outreach. The DeSantis Center for Executive Management Education offers one non-credit management program, but only for companies in-house.

C. Rating: 1—As a university located in the state capitol the offerings are particularly involved with government and technology. There is no apparent strategy for high-skills business continuing education.

D. Rating: 3—A Certified Financial Planning program is offered online. A management program is offered for companies in-house. These qualify as offerings in the areas of management and professional.

E. Rating: 2—The only certification preparation training offered is for Certified Financial Planner.

F. Rating: 1—There is no link to either center from the main page of the FSU web site, nor to the College of Business.

6.3.4 Florida Atlantic University (www.fau.edu):

The main campus of Florida Atlantic University (FAU) is located in Boca Raton, on Florida's southeast coast. The University defines itself as having a distributed campus structure, with satellite campuses in Boca Raton, Davie, downtown Fort Lauderdale, Jupiter and Port St. Lucie.

FAU has an enrollment of approximately 25,000 students in eight colleges, including a College of Business. A link on the FAU main webpage named "Continuing Education" leads to a page listing the three sources: College of Business; Lifelong Learning Professional Development; and College of Architecture, Urban and Public Affairs.

The board of Trustees of FIU is comprised of thirteen individuals, of whom six are appointed by the governor, five by the Board of Governors, the student body president and the chairperson of the United Faculty Council. The FAU mission statement contains eight strategic goals, none of which includes continuing education

The two Florida Counties where FAU has its main campuses, Palm Beach and Broward have a population exceeding 2.6 million.

Of the three sources of continuing education the Lifelong Learning Professional Development is involved primarily with English and other language courses, academic test preparation courses and a paralegal certification course for legal assistants. The College of Architecture, Urban and Public Affairs offers courses in safety, construction and construction management. The courses in construction management do tend to be high-skills programs, and include:

Construction Management Certificate Program

Planning and Managing a Large Construction Project

Construction Liens and Payment Bonds

The Construction Management Certificate Program consists of five courses with a total of nine days in the classroom.

Planning and Managing a Large Construction Project is a six-hour program. It covers primarily legal and management aspects.

There are five areas for continuing education under the college of business:

- Executive Continuing Education
- Certification Programs
- Professional Seminars
- Extension Programs
- Executive programs

The Executive Continuing Education department offers a number of courses, including:

Purchasing & Supply Chain Management

Mod 2: The Supply Management Environment, Regular Course

Mod 3: Management and Value Strategies, Regular Course

Mod 4: Supply Management Leadership Process, Regular Course

These modules, as well as Module 1 are three-Saturday programs

Certified Medical Business Manager

This program consists of four modules, each offered for three hours in the evenings.

This is not a high-skills program and is primarily designed for office workers in medical offices and includes topics such as customer service, billing and medical and anatomical terminology.

The Certificate Programs section of continuing education lists a number of programs, and repeats the two programs defined as Executive Continuing Education in the above section. The programs listed are:

Certificate Programs

- * Purchasing and Supply Chain Management Certificate Program
- * Human Resource Management Certificate Program
- * Advanced Human Resource Management
- * SHRM
- * Certificate in Mortgage Banking
- * Certified Medical Business Manager - CMBM
- * Meeting & Events Management Certificate Program
- * Certified Financial Planner-CFP
- * Certificate in Mortgage Banking
- * Professional Certificate in Project Management

While all these certificate programs are listed, not all are scheduled, as can be seen from the following program calendar. Although they are listed as programs they are, in fact, not offered in an open-enrollment format:

February

Mod 2: The Supply Management Environment

Purchasing & Supply Chain Management - 05

Successfully Managing People

March

Professional Certificate In Project Management

Mod 3: Management and Value Strategies

Mental Health Emergency Services Management

SHRM Certificate Review Course

CMBM Module III

Negotiating for Success in Business

April

Mod 4: Supply Management Leadership Process

Human Resource Management

May

AHRM - Advanced Human Resource Management

CMBM Module IV

September

CMBM Module I

In addition to the courses described above are the following:

- Successfully Managing People is a two day program for managers.
- Professional Certificate In Project Management is offered through FAU by the Schulich School of Business of York University. The course consists of eighteen days of training which prepares participants for the Project Management Institute certification.
- The Mental Health Emergency Services Management course is the first of five (5) courses leading to the designation of “Certified Traumatologist” for physicians. It is a two-day program.
- The SHRM Certificate Review Course program is designed to help HR professionals prepare for the Human Resource Certification Institute’s (HRCI) National Examination for the Professional or Senior Professional in Human Resources (PHR/SPHR) designation. Instruction follows the SHRM Learning System and covers six modules required for the PHR/SPHR accreditation. This program takes place over six Saturdays.
- Negotiating for Success in Business is another program offered in conjunction with the Schulich School of Business of York University. It is a two-day program.
- The AHRM - Advanced Human Resource Management is a specialty program in compensation and benefits. It is a 10-evening program offered online.

The Professional Seminars section of Continuing Education through the College of Business has some repetition of programs listed elsewhere. The listing of programs is:

Professional Seminars

- * Successfully Managing People
- * Project Management Course
- * Facilitative Leadership
- * Finance for Non-Financial Managers
- * Financial Analysis & Control
- * Leveraging Your Leadership
- * Negotiating for Success in Business

Other than those programs described above, no additional programs from this list are being offered.

The Extension Programs lists only one program, Financial & Estate Planning in Retirement, which is targeted to retired individuals.

The area of Executive Programs of the College of Business includes undergraduate and graduate programs that are offered around the work schedule of participants. These are for-credit, degree programs and are therefore not included in the scope of this study.

6.3.4a In summary:

A. Rating: 1—As far as can be ascertained thus far, Florida Atlantic University has no mention of serving the need for continuing high-skills education in the field of business and management.

B. Rating: 5—Continuing education is divided into three departments of which two offer high-skills education in construction management and business management.

Most of the courses offered are offered through the College of Business.

Certification courses are stressed, with at least six courses, leading to various certifications.

C. Rating: 4—FAU is located in a major metropolitan area including cities from Fort Lauderdale to Palm Beach. There is a high concentration of businesses in this region. The strategy seems to encompass support for general management skills as well as specific skills in construction and project management and in the area of medical certification.

D. Rating: 4—The offerings reflect somewhat the management skills required of these businesses in human resources, construction, project management, and logistics.

E. Rating: 5--There is an apparent commitment to certification training. The following certificate preparation programs are offered, although only four are listed under the current course schedule:

* Purchasing and Supply Chain Management Certificate Program

- * Human Resource Management Certificate Program
- * Advanced Human Resource Management
- * SHRM
- * Certificate in Mortgage Banking
- * Certified Medical Business Manager - CMBM
- * Meeting & Events Management Certificate Program
- * Certified Financial Planner-CFP
- * Certificate in Mortgage Banking
- * Professional Certificate in Project Management

F. Rating: 3--There is a link from the FAU home page to the Continuing Education website, which then has links to the three departments that offer continuing education.

6.3.5 University of South Florida (www.usf.edu):

The University of South Florida (USF) is located in Tampa, Florida, with campuses in St. Petersburg, Sarasota, Manatee and Lakeland. Although the name implies “South Florida,” the location is really located in west central Florida. Tampa is a major port, serving the Gulf of Mexico and beyond. Some thirty years ago, Tampa was primarily a blue-collar town with a major US Air Force base. Today Tampa has transformed itself into a cosmopolitan city with a strong financial services industry, while continuing to serve as a major port and to house a major military facility.

USF has a total student enrollment of 43,000, with 35,000 of these attending the Tampa campus. The mission of USF incorporates lifelong learning, as follows:

Mission -

The University of South Florida is a multi-campus national research university that supports the development of the metropolitan Tampa Bay Region, Florida, the United States and the world. Building upon unique strengths inherent in Florida's population, location, and natural resources, the university is dedicated to excellence in:

- Teaching and lifelong learning in a student-centered environment
- Research to advance knowledge and promote social, cultural, economic, educational, health, and technological development
- Service based on academic excellence and the ethic of community responsibility
- Community engagement to build university-community partnerships and collaborations

However, the goals and vision do not support this element of the mission, as stated:

Goals -

The University of South Florida will continue to expand its influence as a premier research university through:

- Strengthened research, creative, and scholarly endeavors

- Improved undergraduate and graduate academic programs that promote intellectual development and student success through a diverse, student-centered environment
- Engaged service that strengthens cultural and community life, and promotes lifelong learning and economic opportunity
- Increased fiscal self-sufficiency and appropriate state support

Vision -

The University of South Florida envisions itself as a premier national research university that serves the metropolitan Tampa Bay Region, Florida, and the nation through:

- Excellent undergraduate and graduate instruction in a student-centered environment
- Creative, innovative, engaged scholarly endeavors, and the furthering of advanced knowledge
- Education that promotes freedom, unity, democracy, and understanding in the presence of our Nation's historical diversity
- Generation and dissemination of knowledge to strengthen our society and the environment
- Greater fiscal self-reliance.

USF is governed by a Board of Trustees consisting of 13 members. The President reports to the Board of Trustees. The organization chart does not include continuing education.

High skills business and management education falls under the Division of Continuing Education, which is part of USF Educational Outreach, neither of which show up on the USF organization chart. Locating the web pages for continuing education is arduous and non-intuitive.

Under the Division of Continuing Education are a number of programs and services, including Professional and Workforce Development, Senior Programs, and others not involving education per se.

Another route to advanced education is through Certificate Programs. These are offered in a many areas of study, including:

Architecture

Arts & Sciences

Business Administration

Education

Engineering

Medicine

Nursing

Public Health

Visual & Performing Arts

Only one certificate is offered in Business Administration, in Entrepreneurship. The certificate basically allows students to take regular graduate courses without actually

enrolling in a Master program. Up to 12 of these credits are then transferable into a Master program. Tuition is based on the normal tuition structure for the courses involved. The courses are offered only in an online format.

While these certificate programs do involve advanced continuing education, they fall more correctly under the mantle of graduate level education. They are taken as regular graduate credit courses and are good leads for students to enroll in the regular Master program, having already completed 12 credits toward the degree.

The Division of Continuing Education, under Professional and Workforce Development, offers a wide array of programs from Art for Adults to Photography. In the areas of business and management, programs are listed in Finance, Human Resource Management and Management and Leadership.

No courses are listed as among current offerings in the area of Finance, with the exception of a Certified Financial Planner® program. The program is offered in the evenings over a period of twenty months. Modules average 36 hours in length.

In the area of Human Resource Management, a Professional in Human Resources program is offered in Tampa and St. Petersburg. This is an evening course for 12 weeks. A Senior Professional in Human Resources is listed but not scheduled.

Under the area of Management and Leadership, a Management and Supervisor Certificate is offered. It consists of five core courses and ten electives, two of which

must be taken to complete the certificate. The courses run from one to three evenings.

Core Courses:

Understanding Yourself and Others: One Key to Effective Leadership and Supervision

Supervising Your Employees

Coaching and Mentoring

Managing Performance Improvement

The Supervisor/Manager and the Law

Electives:

Customer Service and Relationship Building

Creativity in Business

Developing Negotiation Skills

Improving Personal and Organizational Problem Solving

Winning New Business

Problem Solving and Decision Making

Finance for the Non-Financial Manager

Women in Management

Time Management

Dynamic Presentations (see Public Relations Courses)

Reviewing Basic Grammar (see Writing Courses)

Effective Business Writing (see Writing Courses)

Under Leadership, only one course is listed, Situational Leadership, but it is not currently offered.

Under Project Management, one course is listed and offered, PMP® Certification Exam Review, which takes place over three Saturdays.

6.3.5a In Summary:

A. Rating: 2—Although the mission statement does not contain a direct reference to lifelong learning, USF does include in its goals “Engaged service that strengthens cultural and community life, and promotes lifelong learning and economic opportunity”

B. Rating: 3—Responsibility for lifelong learning comes under the Division of Continuing Education, under Professional and Workforce Development. Courses in Human Resource Management, Financial Planning and a Management and Supervisor Certificate are offered. Programs are not offered by the College of Business Administration.

C. Rating: 2—There does not appear to be any strategy related to high-skills continuing education for the business and management community. The certificate programs appear to be a strategy to bring people into the Master degree programs.

D. Rating: 3—Programs in Human Resource Management and Financial Planning are offered. A Management and Supervisor Certificate is offered including several modules.

E. Rating: 1—Certificate preparation courses are offered for the Certified Financial Planner®, Project Management Professional® examination preparation program and Human Resource programs (Professional in Human Resources (PHR) and Senior Professional in Human Resources (SPHR)).

F. Rating: 1—There is no link to either center from the main page of the FSU web site. It proved very difficult to find the pages for continuing education.

In addition to the state universities, there are some 27 private colleges and universities in the state of Florida. The largest of these are located in major urban centers. I will evaluate three of these private institutions.

6.3.6 University of Miami (www.miami.edu):

The University of Miami (UM) is located in the city of Coral Gables, a neighboring city in greater Miami. Miami-Dade County houses 1.2 million residents, with the south Florida area having over 2 million. UM was founded in 1925 as an educational centerpiece for the centrally planned city of Coral Gables. UM has approximately 15,000 undergraduate and graduate students from around the world. Nearly half of the student population comes from outside Florida.

The UM mission statement is vague but does include a reference to “service to our community.” It states, “The University of Miami’s mission is to educate and nurture students, to create knowledge, and to provide service to our community and beyond.

Committed to excellence and proud of the diversity of our University family, we strive to develop future leaders of our nation and the world.”

There is a drop-down link on the UM home page to “Professional/Executive Education.” In addition, there is a link to “Continuing Legal Education” and “Continuing Medical Education,” as UM has very active and recognized schools of law and medicine.

Under Professional/Executive Education, UM has several categories. These are “Professional Development Certificates,” Credit Certificates” and “School of Business Executive Education.” The Vice President for Enrollment Management and Continuing Studies directs the efforts of the area of professional and executive education.

In the area of Professional Development Certificates, there are a number of specialty areas including:

Integrated Marketing Communications

This program is offered twice a year, two evenings a week, for three hours each session. It includes three core courses of six hours each. The three core courses are:

1. Overview of Marketing and Communication in Organizations
2. Integrated Marketing Communications Strategy
3. Effective Budget Planning

Three specialization courses are then offered, one of which must be taken to receive the certificate. The three electives are:

- Targeted Market Research
- E-communication marketing
- Promotion Strategies

Sales Institute Certificate

This institute offers a three-day certificate. The three modules, offered twice a year, are:

- Beating the Competition
- High-Powered Persuasion
- Negotiation Techniques that Really Work

Paralegal Studies Program

The UM Paralegal Studies Program and the UM Executive Paralegal Studies Program are offered in both Coral Gables and Tampa, Florida. Each program includes 272 hours of instruction in four-hour evening or Saturday (Executive Program) blocks. This equates to about 34 days of instruction.

Personal Financial Certificate

This program prepares students for the Certified Financial Planner® designation. It consists of six modules. Each module is presented over 12 evenings of three and a half hours each. The modules are:

Financial Planning Fundamentals and Insurance

Income Tax Planning

Employee Benefit and Retirements Planning

Investment Planning

Estate and Gift Tax Planning

Comprehensive Financial Planning

Comprehensive On-Line CFP Review, offered through a third-party.

Emerging Manager Certificate Program

The Emerging Manager Certificate Program is scheduled twice a year and consists of eight modules. Each module takes place four evenings of three hours each, for a total of 12 hours. The program is designed for “new supervisors and managers who want to develop their leadership potential and increase organizational productivity and quality.”

The program modules are:

Creating Excellence in Your Organization

Managing Day-to-Day

Understanding the Supervisory Role

Accounting for the Non-Financial Manager

Change Management

Presenting Yourself in Your Organization

Harnessing the Power of Technology

Managing Workplace Conflict Effectively

Human Resource Management Certificate

The Human Resource Management Certificate “provides the latest in proven techniques and strategies to effectively manage organizational challenges.” The program begins with an Introduction to Human Resources prerequisite for participants with less than two years experience in the human resource area. This prerequisite course is six hours in length and is presented over two evenings.

The remaining six modules take place over ten evenings each.

These modules are:

Module 1: Employment, Planning, and Placement

Module 2: Developing and Administering Compensation Programs

Module 3: Current Trends in Employee Benefits

Module 4: Legal and Regulatory Issues

Module 5: Training and Development

Module 6: Employee and Labor Relations

UM also offers credit certificates, which are part of the regular degree programs and do not fall into the scope of this study.

UM also offers customized executive education through the McLamore Executive Education Center, which is part of the UM School of Business.

6.3.6a In summary:

A. Rating: 1—University of Miami offers professional and executive education primarily through its office of professional/executive education which is headed by the Vice President of Enrollment Management and Continuing Studies, Paul M. Orehovec, who has a Masters degree in Education. The UM mission statement does include a reference to community service, but does not specifically address continuing education.

B. Rating: 4—University of Miami offers professional and executive education primarily through its office of professional/executive education, although these are not directly headed by the College of Business. A wide array of management and professional programs are offered, several of which lead to UM certifications. Only one program prepares student for an internationally recognized certification, the Certified Financial Planner®. UM also offers customized executive education through the McLamore Executive Education Center, which is part of the UM School of Business.

C. Rating: 5—UM stresses awarding certificates supported by the strength of the university name. The professional/executive education home page states

“Further your career with a program designed for professionals and backed with the UM name.”

D. Rating: 2—With the exception of the Integrated Marketing Communications program, the programs offered are at the lower end of management and professional education.

E. Rating: 2—The only certification preparation training offered is for Certified Financial Planner®.

F. Rating: 5—There is a direct link from the main UM web page to Professional/Executive Education through a drop-down menu.

6.3.7 University of Tampa (www.ut.edu):

The University of Tampa is a private university located in Tampa, Florida. The university has an enrollment of roughly 4,800 students from all 50 states and 100 countries.

The mission statement does include the sentence “Through complete engagement with the educational environment, UT alumni are prepared for careers, graduate and professional education, and lifelong learning.”

The College of Business has a number of centers including: Center for Ethics; TECO Center for Leadership; Naomi Institute for Business Strategy. Only the

TECO Center for Leadership lists a program, the Strategic Leadership Development Program, but this program is not currently offered and the link to the program page is inoperative.

There is no link on the first page of the University of Tampa website to these centers, nor to the College of Business.

6.3.7a In summary:

- A. Rating: 2—The mission statement does include the sentence “Through complete engagement with the educational environment, UT alumni are prepared for careers, graduate and professional education, and lifelong learning.” It does not state that its mission is to provide “professional education, and lifelong learning,” but only that its alumni “are prepared” for this type of education.
- B. Rating: 1—The College of Business lists several institutes and centers that appear to have a mission of providing advanced continuing education, but these centers and institutes have no programs offered.
- C. Rating: 1—There are no apparent strategies because there is no continuing education.
- D. Rating: 1—There are no offerings in the areas of knowledge and high-skills programs.

E. Rating: 1—No commitment to certification training, because there are no certification preparation programs offered.

F. Rating: 1—There is no link easily found to high-skills business programs page

6.3.8 Rollins College (www.rollins.edu):

Rollins College is the oldest recognized college in the state of Florida, founded in 1885 by New England Congregationalists. It is located within 15 miles of Orlando in central Florida.

The city of Winter Park itself is home to about 25,000 residents. Nearby Orlando is home to more than 80 attractions including Disneyworld and Universal Studios, 91,000 hotel rooms, 39 million square feet of shopping, and nearly 3,800 restaurants. The metropolitan area around Orlando, which includes Winter Park has some 1,650,000 residents. Rollins College has an enrollment of approximately 3,500 students, with 500 of these enrolled in the Crummer Graduate School of Business.

The Rollins mission statement does not address continuing education. There a direct link from the main webpage to the Crummer Graduate School of Business and management and executive education site. Executive education falls under the Crummer Graduate School of Business. The Director of Rollins Management and Executive Education reports directly to Craig McAlaster, Dean of the Crummer Graduate School.

The management and executive education programs offered fall into six categories, with programs in each category. They are:

General Management

- * Crummer Management Certificate Program – an 18 evening “mini-MBA” program.
- * Six Sigma Green Belt Certification – a six day, 48 contact hour program leading to certification as a Green Belt. It also includes 16 hours of interactive online learning

Leadership

- * Crummer Leadership Program – a five-day intensive leadership program.
- * Supervisory Leadership – a seven-evening (3 ½ day) program.

Human Resource Management

- * Employment Law – a six evening program.
- * HR Management Certificate Program – a ten evening program (5 days).

Human Resource Development / Training

- * Train the Trainer Certificate Program – a four day program focused on designing and delivering training.

Supervision

- * Crummer Supervision Program – an 18 evening (9 day) program.

Rollins College also has a Corporate University (RCCU). It “is a member driven learning organization that partners the academic expertise of Rollins College Management & Executive Education with the business expertise of a select group of non-competing local corporations.”

Courses offered through the RCCU are:

- * Leadership Today: A Total Systems Approach – not currently offered
- * Performance Management: Maximizing Performance in a Changing Workplace – not currently offered
- * Conflict Management: Resolving Workplace Differences – a two day program.
- * Negotiation Strategies: Management Tool for Building Positive Relationships – not currently offered
- * Maximizing Interpersonal Effectiveness – not currently offered
- * Strategic Planning – not currently offered
- * Understanding Business Cycles – not currently offered
- * Internal Consulting – not currently offered
- * Financial Analysis for Non-Financial Managers – a two day.
- * Strategic Marketing – not currently offered
- * Operations Management – not currently offered
- * E-Commerce – not currently offered
- * Managing Innovation – not currently offered
- * Understanding and Managing Change – not currently offered
- * Managing in the New Economy – not currently offered

- * Interpersonal Communication Series – three programs for a total of 4 days.
- * Aligning People & Passions for Enhanced Organizational Performance – a one-day program.
- * Advanced Negotiation and Dealmaking - a two-day program.
- * Team Leadership & Communication – a two-day.
- * Implementing a Customer-Centric Approach to Internal Marketing - a one-day program.

Rollins College offers a wide array of advanced programs and maintains a price reflective of the content and quality. The college does not offer courses to prepare participants for recognized certifications.

6.3.8a In summary:

- A. Rating: 1—Rollins College has no reference to advanced continuing education in its mission statement. The programs in management and executive education fall under the Crummer School of Business.
- B. Rating: 5—A wide array of management, executive and leadership programs are offered, but not in the functional areas leading to widely acknowledged certifications. The programs in management and executive education fall under the Crummer School of Business.
- C. Rating: 5—Rollins College is taking advantage of its location near Orlando by offering numerous courses that will be enticing to the tourism, hospitality and other business of the area. The concept of the Rollins College Corporate

University is a strong strategic move to align the college with local businesses and organizations to be the de facto in-house management training facility. The relatively high pricing suggests a strategy to have itself seen as a premier institute of continuing education.

- D. Rating: 3—Rollins College emphasizes management and leadership programs over functional high skills programs. No certificate preparation courses are offered.
- E. Rating: 2—The only certification preparation training offered is for Professional Human Resources (PHR) manager, although it is not promoted as a preparation program.
- F. Rating: 5—There is a direct link from the main Rollins College web page to the “Crummer Graduate School of Business; MBA& Management/Executive Education”

6.3.9 Ratings of universities

Table 6.1 Ratings of universities

The ratings may be summarized as follows:

<i>Rating categories</i>	A	B	C	D	E	F	Mean
<i>Institution</i>							
State Universities							
University of Florida	1	3	1	3	1	3	1.50
Florida State University	1	3	1	3	2	1	1.83
Florida Atlantic University	1	5	4	4	5	3	3.67
University of South Florida	2	3	2	3	1	1	2.00
Mean for State Universities	1.25	3.5	2	3.5	2.25	3	2.25
Private Institutions							
University of Miami	1	4	5	2	2	5	3.17
University of Tampa	2	1	1	1	1	1	1.17
Rollins College	1	5	5	3	2	5	3.50
Mean for Private Institutions	1.33	3.33	3.67	2.00	1.67	3.67	2.61

A. University organization and mission

B. Role and organization of continuing education in the areas of business and management

C. Apparent strategies

D. Types of knowledge and high-skills programs offered

E. Commitment to certification training

F. Accessibility from web site

As the University of Tampa offers no high-skills business programs the data are skewed. The following table depicts the results omitting the University of Tampa. These findings will be used for the summary.

Table 6.2

Final findings of analysis:

<i>Rating categories</i>	A	B	C	D	E	F	Mean
<i>Institution</i>							
State Universities							
University of Florida	1	3	1	3	1	3	1.50
Florida State University	1	3	1	3	2	1	1.83
Florida Atlantic University	1	5	4	4	5	3	3.67
University of South Florida	2	3	2	3	1	1	2.00
Mean for State Universities	1.25	3.5	2	3.25	2.25	3	2.25
Private Institutions							
University of Miami	1	4	5	2	2	5	3.17
Rollins College	1	5	5	3	2	5	3.50
Mean for Private Institutions	1.00	4.50	5.00	2.50	2.00	5.00	3.33

A. University organization and mission

B. Role and organization of continuing education in the areas of business and

management

C. Apparent strategies

D. Types of knowledge and high-skills programs offered

E. Commitment to certification training

F. Accessibility from web site

CHAPTER 7

CONCLUSIONS AND RECOMMENDATIONS

7.1 Introduction

The objective of this research as stated in the research questions is to examine the existence of a link between the provision of appropriate high-skills lifelong learning educational resources (EPE) and the support by the university systems of a local knowledge led economy. Within the context of the State of Florida as described previously the following questions require investigation:

- 1 What are the components of relevant EPE?*
- 2 What motivates participants to take part in EPE?*
- 3 What is the level of support of the universities in the state of Florida for EPE?*
- 4 Prepare recommendation based on the findings of the study for the state of Florida to improve support for EPE*

Through this research components of EPE were identified, motivations of participants were ascertained and the level of support by universities was evaluated. The research led to the conclusion that state support of EPE is woefully lacking. Recommendations were developed and included, achieving the aims of this research.

While this thesis utilized a case, the state of Florida, the researcher believes that the findings and conclusions will be of value to practitioners involved in EPE, as well as to academics studying this area of business education. This research exercise has assisted the researcher in being more effective in managing and developing EPE

within his own university. The researcher hopes that the outcome of this research will lead to a more organized approach to EPE in the state of Florida and beyond. As professions and skills are made obsolete in the knowledge economy the need for continued high level lifelong learning becomes increasingly important to the sustainability and viability of local, regional, state and national economies.

Based on the findings in the review of pertinent literature examined in chapters 1, 2 and 3, and outcomes of the research conducted, described in chapter 6, conclusions may be drawn. This chapter will begin by addressing the first two research questions and drawing conclusions, based primarily on the literature review, coupled with the case study of FIU and the results of the questionnaire survey.

The second part of this chapter will address research question three, primarily utilizing the findings of the internet survey.

Finally, research question four will be addressed by offering specific recommendations on how to improve support for EPE in the state of Florida.

7.2 Components of EPE

In order to be relevant and effective EPE must bring value to the local economies it serves. The concept of value and how to measure it was examined in chapter 3 of this thesis. The various components of EPE are designed to contribute to the enhancement of this value.

For a university EPE effort to be successful the following conclusions should be reviewed and considered. These conclusions cover the areas of program strategy, organization, marketing and

7.2.1Strategy

A program strategy is required in order to properly deliver programs to the client community that will aid in developing value. The strategy must consider the needs of the community based on the types of business and organizational activities in the region. A region heavy in manufacturing will have different needs from a region that is primarily involved in financial services. Many of the more general needs, such as leadership and management may be universal, but the focus and delivery of these programs may have to be tailored to the needs of the community.

As the primary goals of participants in EPE are career advancement, to include transferring to a new career and moving up in a current career both of these needs should be addressed. Certificate programs, such as Professional in Human Resources (PHR) may be used both by HR professionals and participants interested in entering into this field. The same holds true for Certified Financial Planner (CFP) or Project Management Professional (PMP) programs.

In the areas of skills in the EPE definition are programs for managers, executives and professionals. These may be courses targeted towards officers and managers in business corporations, not-for-profit organizations and government bodies. Also included in this definition are professionals operating in the high-skills arena,

requiring advanced education and, in most cases, professional certification. This group includes such professions as lawyer, accountant, physician and educator. In most cases activity in these professions requires continuing education relative to the profession, but may include business and management education. To advance in careers by moving into management or moving up in the hierarchy two types of programs are required: functional area programs and soft skills programs.

Functional skills programs are those which are primarily concerned with knowledge rather than skills. These may cover functional areas that are typically covered in a Master of Business Administration (MBA) or other management program such as Master of Public Administration (MPA) or Master of Science program in specialized business topics such as finance or marketing.

Another group of programs that fall predominantly into the functional classification are programs that lead to, or are required for, various certifications. These programs are special because the content and outcomes are generally dictated by a national or international body that awards the certification. As discussed elsewhere in this thesis, these programs are becoming sought after.

Examples of functional area programs might be Finance and Accounting for Managers and Business Owners, Business Process Management or Human Resource Management.

Programs should be offered in both an open enrollment and customized in-house format. Open enrollment serves the entire community, allowing small companies to

send participants and allowing large organizations to send members to very specific programs. Many large companies prefer to offer a program that is somewhat tailored to their specific needs and can be delivered for their employees only. Many programs offered through EPE fall into both categories, but some may be specifically designed for delivery within an organization.

An additional element of strategy is pricing of programs. Each market is different. The market should be studied to determine what an acceptable per-day rate is for open enrollment and in-house programs.

An additional element in the strategy is the use of faculty versus outside instructors. Often one goal of EPE is to provide faculty members with the opportunity of additional income as well as an opportunity to interact with members of the business and organizational community. A balance should be achieved between faculty who are interested in and capable of delivering EPE, and instructors whose specific knowledge or certifications require their employment.

The second EPE category might be called the ‘social-behavioral skills’ area. These programs are generally related to so-called soft-skills development. These skill areas might address communication or leadership skills. While knowledge is required for these skills to be developed, the primarily goal of these programs is to assist participants in developing skills that they can bring back to the workplace. These skills will hopefully make them better managers.

These programs may be utilized to enhance skills such as leadership, sales, negotiating and influencing.

The strategy should also consider tiers of programs. For example a Finance and Accounting for Managers program may be an entry level program, but follow-up programs at higher levels should also be offered. Such programs may include Financial Modeling, Forecasting and Budgets, or Mergers and Acquisitions. These program offerings allow participants to move forward with their education utilizing the same EPE organization and adding to loyalty.

7.2.2 Organization

From the research conducted it appears that the more successful EPE programs are organized through the business education entity of the university (College of Business, etc.). It also seems that the EPE entity should be managed by a person with a business rather than an education background. Additional research should be conducted to confirm this conclusion.

EPE must be part of the mission of the university and the school of business or other unit which is home to EPE. EPE will not receive sufficient internal consideration if it is not explicitly supported by the academic entity.

The EPE department should be self supporting and, in a best case scenario should contribute a surplus to the college or university. The pricing strategy, coupled with a compensation structure for professors/instructors should insure the financial success of the department.

The organization of EPE should include processes to insure quality and reduce costs. In the case study we saw that open-enrollment programs are transactional in nature. These should be set up to allow for easy enrollment and payment online, as well as database tracking for confirmations, reminders and additional information.

7.2.3 Marketing

As was seen from the research conducted, marketing is key to the success of any EPE program. Marketing methods have changed considerably over the past decade. Marketing used to be achieved through catalogs and direct mail. These methodologies were very expensive and wasteful. As a great majority of participants in EPE get their information through email and the internet new methods of marketing had to be developed.

As with any retail marketing the key is location. In the case of EPE it is location on the university website, guaranteeing ease of finding the programs offered through EPE. It is imperative to make finding the EPE organization and the desired program as easy as possible, with a minimum number of mouse clicks. There should be a direct link to EPE on the main university web page or, at a minimum, on the home page of the business school or entity housing EPE.

The selling of open-enrollment programs is primarily transactional, in that little or no personal contact is required between prospective participants and EPE staff. The web interface should be designed to facilitate easy registration and payment for the program. In-house programs require more contact in order to properly design and

customize them as required. Email marketing of open-enrollment programs serve the additional goal of informing management in the community of the availability of programs that may be brought in-house.

7.3 University support of EPE

These conclusions address the research question 3 *What is the level of support of the universities in the state of Florida for EPE?* This question was addressed primarily by the internet survey. The results are listed in chapter 6.

In spite of the emphasis placed on life-long high-skills learning by the OECD and other organizations and, though the OECD recommendations, the federal government of the United States, there is no concurrent emphasis in the state of Florida. The state university system has no directives from the state government relative to this type of education. In large, the state universities have not accepted the mission of life-long high-skills business and management education. The private universities are responding to market conditions and in general offer more complete life-long learning opportunities, although one university offers no programs at all.

These results are very discouraging in a state that has so many attributes that should foster entrepreneurship and business growth. The state of Florida has no personal income tax, excellent climate, superb communications and transportation infrastructure and an extensive state university system. The state of Florida should be a beacon for high technology businesses and virtual employees, but the lifelong education opportunities are sorely lacking. A new direction is needed in order to

entice businesses to move to or stay in the state of Florida. Advanced education is needed to make the businesses and their employees most effective in the long run.

7.3a University organization and mission

It is apparent that neither state nor private institutions give great importance to high-skills education, as only one university reviewed even marginally mentions this objective in the mission statement. It can be deduced that high-skills continuing education is not seen as a priority. In the state system there is no mandate or direction from the governor's office that would motivate the state universities to incorporate this educational sector into their missions. The private schools also do not perceive this educational area as core to their organizations.

7.3b Role and organization of continuing education in the areas of business and management

The private institutions tend to position the areas of high-skills business and management training under the auspices of the College of Business or its equivalent. The state universities tend to lump this type of continuing education with the College of Continuing Education or its equivalent. It could be that for the state universities this is an example of legacy folkways, where continuing education was traditionally developed and delivered by a central agency. The private universities exhibit more flexible structures that respond to identified needs, so structure is not as inflexible as a state institution. Additional research needs to be done in this area to determine any corollary between the organization of the high-skills continuing education function and the effectiveness of the delivery of this type of lifelong learning. Of the five state universities studied only Florida Atlantic University had

business and management programs reporting to the college of business, and this university had by far the highest overall rating (3.67) of all the state universities.

7.3c Apparent strategies

The state institutions have no apparent strategies for delivering high-skills business and management programs. As there is no mention of this type of education in the mission statements there have been no discernable strategies developed. The only school with an apparent strategy is Florida Atlantic University which seems to have a strategy of using certificate programs to bring students into Master degree programs.

The private universities that are involved in high-skills business and management programs display a minimal strategy in the offerings. This strategy is simply to have programs that will feed into degree programs and will open doors for in-house corporate training.

7.3d Types of knowledge and high-skills programs offered

None of the universities evaluated offer programs in all four areas of education – executive, management, professional and administrative. Florida Atlantic University had the widest offering of the state universities, with programs in various aspects of management, and with offerings in professional and administrative realms. Several schools had offering in two of the areas listed.

7.3e Commitment to certification training

Only Florida Atlantic University has a strong commitment to certification preparation training. In spite of certifications becoming increasingly popular with employers, the universities in general have not embraced certification preparation training. The content of these certification programs are continually updated to reflect advances in concepts and technology and would be perfect vehicles for continuing high-skills education.

7.3f Accessibility from web site

The private universities are superior to the state universities at making the programs easy to find from the university web site. This exhibits quite obviously the lack of attention in the state university system to continuous high-skills education.

7.4 Recommendations to the state of Florida for development of a statewide, effective EPE structure.

EPE is generally underserved in the state of Florida. For all the reasons stated in this thesis the state of Florida should be actively supporting EPE throughout the state.

On a statewide basis support of the business and organizational community is essential to building a successful business climate.

If the state is also examined on a regional basis this need becomes immediately obvious. In south Florida's Miami-Dade and Broward counties there are several sectors that are flourishing, such as healthcare, tourism, construction and

international business. While healthcare, tourism and construction are common to most areas of Florida, international business is specific to south Florida.

South Florida serves as a Latin American headquarters for companies and organizations. Thousands of companies use the transportation and communications hubs in south Florida as a natural gateway to Latin America and, to a lesser extent, from Latin America to the rest of the world. Companies from Europe, Asia and other parts of the United States have set up regional headquarters to serve the markets in South and Central America and the Caribbean.

Typically these companies bring in senior management to staff these regional headquarters, but this is not true for staff below the top management level. This staff must be recruited locally. To continue to attract regional headquarter offices it is necessary to have a sufficient pool of talent to draw from for these middle and senior management positions. A regional office requires such functional area expertise as finance, accounting, operations management, sales and marketing, and human resource management to name just a few. These regional offices will also need personnel with leadership and management skills, particularly in dealing in a diverse multi-cultural environment.

In the area around the National Aeronautics and Space Administration (NASA) offices in Cape Canaveral there is a different but similar need. This area, locally known as the “Space Coast”, and the area stretching along the Interstate Highway I-4 corridor to Tampa, on the west coast of Florida host numerous entrepreneurial ventures and companies servicing NASA. In the case of entrepreneurial ventures,

spin-offs from NASA or large contractors located in the Space Coast area are usually developed by highly technical professionals. These technical entrepreneurs often have little or no understanding of business and management. For these new ventures to be successful opportunities must exist for these entrepreneurs to gain the organizational knowledge and skills required for success. Also, these firms need a local pool of talent similar to that required in South Florida.

These scenarios are repeated in other major markets in Florida: healthcare research in Gainesville; financial services in Tampa; and transportation in Jacksonville.

The organization best suited to address the issue of EPE in the state of Florida is the state university system. The state system consists of eleven universities located in all the major population areas of the state. Each university has a college of business or equivalent to house a department for high skills EPE type training. Several of the universities already have similar departments.

The state universities are administratively controlled by the governor and the chancellor of the state university system. They are in a position to influence individual institutions to initiate a statewide network of EPE departments.

In order to provide EPE support for the state of Florida I would make the following recommendations to the office of the Governor, to the Board of Education and to the Chancellor of the university system of the state of Florida. These recommendations are not to be construed as a fully developed business plan, but merely as a collection

of thoughts and recommendations which may be adopted individually or totally, or discarded.

1. EPE offices or departments statewide should be organized under the direction of the respective colleges of business administration and their deans. It has been observed in the course of research for this thesis that EPE departments organized under the colleges of business fare better than those which fall under a general office of college of continuing education that has neither a direct link nor reporting channel to the business school.

This recommendation is supported by the case study (Chapter 6) of this thesis. A successful OPE department at Florida International University contrasted directly with a university continuing education school (CAPS). OPE reported directly to the Executive Dean of the College of Business Administration and employed a director with substantial entrepreneurial and business management experience.

2. The EPE office should be managed by a person with a business rather than an academic or other background. The preferred business background would be entrepreneurial with strong small business management acumen. A second option would be a person with large corporate background but with responsibility for profit and loss of an operating department, company or division. People with these backgrounds will understand what is required on the revenue and margin side of business, as well as the cost containment side. People with strong HR or training backgrounds may tend to be more

involved in the details of program design and lose sight of the business aspects of the EPE department.

Once again, this recommendation is supported by the case study (Chapter 6). The Director of Business Development of OPE had significant successful entrepreneurial experience as well as strong skills in business management. Additional research should be conducted to further support this conclusion.

3. The various EPE departments should be coordinated through a central state-wide office. This would not be a command office but a coordinating office only. Each director would be responsible for her or his regional area. In spite of this autonomy a team could be developed that would exchange best practices and other assets.
4. Some of the other assets that could be shared would be programs. If one university were to develop a successful program this could then be shared with the other EPE offices throughout the state. Each office could modify the program to meet local needs and tastes, or could decide that this program would not be marketable and valuable to its constituency.
5. As programs are sometimes developed by faculty members these faculty members could also be shared, where practical. In some cases only one or two faculty members statewide might be capable of delivering a particular program, or that program may be the property of a particular faculty

member. In these cases sharing of faculty would be most advantageous to the various EPE offices that have a market for this particular program.

6. It is very important to include faculty in the dissemination of information about the organization of EPE on a statewide basis. Many faculty members will view this development as an opportunity to increase their personal incomes as well as an opportunity to interact closely with members of the business and organizational communities. Faculty members should be encouraged to develop EPE programs that could be delivered through the EPE offices.
7. In cases where a program, usually a higher level program, does not have sufficient draw in on university's market it could be jointly marketed throughout the system and offered at only one location. This location could rotate among the best market areas for each recurrence of the program. This would increase participation and margins. Revenues and costs could be shared based on participation.
8. Marketing for programs could be done locally and statewide, depending on the program and markets. Client organizations that have statewide representation or offices would be able to send employees and managers to very similar programs offered in all the major population areas. This could prove a very strong marketing strategy.

9. Each EPE office would be responsible for developing its own email marketing database. Each database could consist of alumni, common organizational memberships (such as local Chambers of Commerce) and participant lists gathered at various university events. Program information databases, registration pages and such would be locally maintained, except for specific programs that are offered on a statewide basis. This marketing concept for EPE is supported by the case study (Chapter 6).
10. As an incentive, compensation for EPE directors should be based on a salary and a bonus based on surplus generated. Each EPE director should hire an assistant to take charge of day to day operations. Experience has shown that an EPE office should be able to operate efficiently and profitably with a staff of one to three additional employees, perhaps augmented by one or two part-time student aides.
11. Each EPE director should be responsible for developing a program strategy targeting the needs of the particular market. This would not preclude directors working in a coordinated effort to map a statewide strategy for EPE. One director should take the lead in coordinating such a strategy.

These diverse recommendations could lead to an integrated EPE initiative that could serve the needs of the Florida business and organizational constituencies well. This would be beneficial to the development of the state, as well as aiding in revenue enhancement for each of the universities in the system.

7.5 Recommendations for further research

In the course of this study several topics that were covered are in need of further research. I recommend further research in the following areas:

1. Geographical area can be expanded or changed. This study utilized the state of Florida in the United States of America as a case study. Other states could be included in future studies and perhaps compared with Florida. Beyond the United States, regions of other countries, or entire countries could be analyzed with the same or similar indicators.
2. Utilizing variables included in the HIEEE questionnaire, an analysis can be conducted into the differences in responses based on gender, age group, position in the organization and education completed.
3. An interesting study could be conducted on reasons participants take part in programs that lead to recognized certifications versus those that do not lead to certification.
4. Further research could be conducted into the leadership of EPE programs. This study could look more deeply into the type of leadership that produces the most successful EPE departments, based on indicators included in this thesis. Leadership could be analyzed based on the background of the person in the university responsible for EPE. Leaders with business management backgrounds could be compared against those with experience in education or human resources. Whether the EPE area is organized through the business

school or some other entity, such as a school of continuing education may also be brought into this equation.

7.6 Personal reflection

Since my entry into the academic world, joining Florida International University in 1999, I have been involved in some way with professional education, both through teaching and administration. I have had the privilege of being involved in leading the organization and growth of offices of professional education at two universities, one a university in the state of Florida system, and the other an independent, not-for-profit university. Both universities are quite large (over 23,000 students) with very active colleges of business, and both are located in major and ethnically diverse business centers of South Florida; Miami (Miami-Dade County) and Fort Lauderdale (Broward County).

What surprised me – in fact, astounded me – was the apparent total lack of planning or strategy on a statewide basis for growth in this, what I considered, extremely important element of formal education. This astonishment was exacerbated when I began researching chapter two of this thesis and reviewed recent research on evaluation of the wealth of a nation, state or region by including knowledge-based factors. Quite a few discoveries were enlightening and surprising.

The first surprise is that the major body of knowledge and research on knowledge-based valuation is housed and performed under the auspices of the OECD. While I could not find a direct reference, it can be inferred that the United States, and other member countries, has delegated this research area to the OECD. I could find very

few sources of research done under the auspices of member nations themselves. While this methodology of consolidating research and knowledge in the OECD exhibits a health endeavor in teamwork, I question whether the “not invented here” syndrome would relegate this research into a less important position of influence in bringing attention to the very important issues imperative to establishing and nurturing a strong knowledge-based economy. In the area of continuing life-long high skills learning, specifically, would member nations pay as much attention to, and place significant emphasis and resources in, insuring the development of policy and infrastructure to assure a strong commitment to insure a level of success? While the research on the state of Florida suggests that significant policy and infrastructure have not been committed to continued lifelong learning at the high skills level, additional research is required to ascertain whether this is an outlier case, or is indicative of a systemic attitude.

Another outcome of the research devoted to chapter 2 was the realization that continuing high-skills education contributes directly or indirectly to every indicator of wealth that has been recognized by OECD researchers. While one proposed new indicators of valuing wealth is specific to learning (measuring knowledge and learning), all other valuation indicators are either directly related to the educational base and infrastructure of a country or region. Education is a common thread through each of the five indicators proposed by the OECD (1996, p. 38).

When I began working in the area of continuing professional education I became quickly aware that competition from other colleges and universities in the Miami, Florida area was almost non-existent. Coming from an entrepreneurial business

background I saw this through a particular filter. This open niche presented a business opportunity. I did not observe this phenomenon through another filter, that of academic researcher. I did not see the potential impact on the economy of the state of Florida, or on the United States of this lack of support for continuing high skills business education. Once I began work on this thesis it became evident that there was no support of, or infrastructure for this type of learning within the state university system. I began this research while I was employed by a state university (Florida International University). I attended national conferences on continuing education in business and was surprised by the lack of attendees from other state institutions in the state of Florida. As a business person, I was very pleased at this discovery, as it meant that I had a very open marketplace in which to work, especially when I joined Nova Southeastern University, which had a presence in every major market in the state. From a responsible citizen standpoint, however, I was appalled that the state had no apparent plan or infrastructure to support a unified approach to continuing high-skills education. This revelation was particularly surprising, given the fact that the State of Florida was particularly well suited to becoming a high-technology region, due to excellent infrastructure, no state income tax and excellent weather.

Another revelation is that the typical research oriented university seems to be content with existing with two legs on the stool – traditional degree-based education and academic research. High skills continuing education in business and management appears to be of little interest to the academic community of these institutions. It may even be inferred that the academicians see this type of skills based training to be beneath them, and the purview of some other educational body.

The fact to the contrary is that the state university system, answerable to the state and its citizens, has an obligation to educate at the high level. Only the state system has the presence and unity of purpose to effectively deliver this type of education at a consistent and statewide level.

Another area, not so much a revelation as substantiation, was the complete dominance of printed materials as a vehicle for promoting and informing relative to continuing education programs and courses offered by colleges and universities. I knew from my own experience that the internet had become the primary source for such information. I had completely changed the marketing methodology when I took responsibility for developing continuing education at the two business schools I have been affiliated with. First at Florida International University we abandoned the traditional methods of promoting and providing information about our programs. We produced almost no print literature, did not utilize traditional print advertising, neither through the news media nor direct mail, and greatly limited radio advertising. We moved to email marketing designed to drive prospective participants and companies to our web sites. This methodology tended to be extremely successful; as we were able to double the offerings and revenues each of the two years I was there. At Nova Southeastern University I found many cartons of outdated catalogues and brochures which had cost many tens of thousands of dollars to develop and produce. These were discarded and not replaced. The trend was obvious when attending conferences on continuing education in business schools. The quantities of catalogues and flyers on display decreased greatly from year to year. My approach was to do away with these antiquated marketing vehicles entirely and focus on developing effective email lists and electronic flyers, and maintaining up to date and

complete web sites for each program, complete with current program schedules, which have to be updated quite often. The result was beyond my expectations. Once again at Nova Southeastern we were able to more than double program offerings and revenues each year. Upon visiting the web sites of other universities during the conduct of research for this thesis I could see that the other universities had also moved to the electronic medium for informing prospects of their program offerings. I feel that this rapid evolution from traditional print to internet based web sites as a primary marketing method justified my decision to use this secondary source of information as the most up to date and complete base of data for my research ranking the institutions chosen.

The research involved in writing this thesis took place over a period of six years, interspersed with long periods of idleness due to outside circumstances. A consistent, full-time approach to preparing this thesis would have yielded a more cohesive presentation from the beginning. As a result of the comments by the examiners and the guidance of the dissertation advisor I was able to see the lack of cohesion and address this after the fact. For me it is clear now that the exploratory case study was the instrument that drove the development of the two surveys, including the content of the questionnaire and the choice of indicators in the online survey. In fact, the case study had existed in my mind and had driven the surveys, but I had not articulated the story as a part of the research. What I learned about the research process has been applied in this final product and my understanding of and respect for the process has been greatly enhanced through this research and writing process.

Having conducted the research included in this thesis, and having analyzed and articulated the results have given me a greater understanding of the content and strategies of EPE. I have been able to apply the knowledge gained from this research in my own EPE department, as well as communicating pieces of this new knowledge to EPE colleagues in different states. Personally, I have grown from an implementer of EPE to an expert in the field. I have delivered a program at a national conference of EPE directors on certain aspects of the research and intend to continue as a speaker in conferences in order to be recognized as an expert in the EPE area – not only as a professional but also as a thought leader and researcher.

As a result of the research involved in the writing of this thesis I find myself torn in two different directions. As a pragmatist and a business person I see an opportunity to benefit as a result of the lack of attention given by the state government and university system to developing and implementing a plan to develop a statewide response. As an academic and responsible citizen I feel that I should become an activist in bringing attention to this deficit, which could bode ill for the long-term development of the state of Florida. For the time being I am working hard to deliver high-skills business and management education throughout the state. Perhaps once I have significantly developed this market for Nova Southeastern University, and I have earned my doctorate I can move into a fulltime academic position and begin to lobby for a more organized statewide approach to this problem, and perhaps carry the cause to the federal level.

BIBLIOGRAPHY

- Abell, A. (2000). Skills for knowledge environments. *Current Issues in Economics and Finance, Information Management Journal*, 34(3), 33.
- Abell, J. & Diez, R. (2008). New Measures of Economic Growth and Productivity in Upstate New York. *Current Issues in Economics and Finance*, Federal Reserve Bank of New York, 14(9)
- Adler, P.S. (2001). Market, hierarchy and trust: The knowledge economy and the future of capitalism. *Organization Science*, 12(2), 215.
- Amabile, T.M., Conti, R., Coon H.,Lazenby, M Herron. (1996). Assessing the Work Environment for Creativity. *The Academy of Management Journal*, 39(5), 1154-1184.
- Amidon, D. (1997). *Innovation Strategy for the Knowledge Economy: The Ken Awakening*, Butterworth-Heinemann
- Anderla, G. (1973). A Challenge for Governments and Society, *OECD Observer*
- Andromeda (1997), *Atlas of World History*, Andromeda Oxford Ltd.
- Anell, B. & Wilson, T. (2002). Prescripts: Creating Competitive advantage in the knowledge economy. *Competitive Review*, 12(1), 26-37.

Anonymous. (1999). Cornell's Executive Education Programs. *Cornell Hotel and Restaurant Administration Quarterly*, 40(3).

Anonymous. (2003). Looking at the world's most effective policies for the economy. *Strategic Direction*, 19(3), 33-35.

April, K.A. (2002). Guidelines for developing a k-strategy. *Journal of Knowledge Management*, 6(5), 445.

Armsby P., Costley, C, & Garnett, J. (2006). The legitimization of knowledge: a work-based learning perspective of APEL. *International Journal of Lifelong Education*, 25(4), 369-383.

Arnal, E., Ok, W. & Torres, R. (2001). Knowledge, Work Organization and Economic Growth, *OECD Labour Market and Social Policy Occasional Papers*, n. 50.

Ballou, R., Bowers, D., Boyatzis, D., & Kolb, D.A. (1999). Fellowship in Life Long Learning: An executive development program for advanced professionals. *Journal Management Education*, 23(4), 338. Retrieved September 15, 2005, from ABI/INFORM Global database.

Barber, M. (2001). Teaching for tomorrow. *Organisation for Economic Cooperation and Development: The OECD Observer*, 225, 11.

Barchan, M. (1999). Capture Knowledge. *Executive Excellence*, 16, 9.

Barnett, R. (2000). University Knowledge in an Age of Supercomplexity. *Higher Education: The International Journal Higher Education and Planning*, 40(4), 409-422.

Barrow, C.W. (1996). The New Economy and Restructuring Higher Education. *The NEA Higher Education Journal*, 12(1). 37-54.

Bassanini, A. (2003). Solving the training divide. *OECD Observer*, No. 240/241.

Bates, T. (2001). National strategies for e-learning in post-secondary education and training. *Fundamentals of Educational Planning*, 70.

Bean, C.J., Robinson Jr.,L. (2002). Marketing's role in the knowledge economy. *The Journal of Business & Industrial Marketing*, 17 (2/3), 204.

Beller, M. & Or, E. (1998). The Crossroads between Lifelong Learning and Information Technology—A Challenge Facing Leading Universities. *JCMC*, 4(2).

Berg, L. (1998). *Qualitative research methods for the social sciences*, Allyn & Bacon

Blondal, S., Field, S. & Giroauard, N. (2002). Investment in human capital through post-compulsory education and training: selected efficiency and equity aspects *Organization for Economic Co-Operation and Development* Economics department working paper No. 333.

Blumenthal, D., Gluck, M., Louis, K., Stoto, M. & Wise, D. (1986). University-Industry Research Relationships in Biotechnology: Implications for the University. *Science*, 232(4756), 1361-1366.

Bontis, N. (2001). Assessing knowledge assets: a review of the models used to measure intellectual capital. *International Journal of Management Reviews*, 3(1), 41-60.

Bontis, N., Dragonetti, N. C., Jacobsen, K., & Roos, G. (1999). The Knowledge Toolbox: A Review of the Tools Available to Measure and Manage Intangible Resources. *European Management Journal*, 17 (4).

Bornemann, M. & Leitner, K. (2002). Measuring and reporting intellectual capital: the case of a research technology organization. *Singapore Management Review*, 24(3), pp. 7-19.

Bowen, F., Bracco, K., Callan, P., Finney, J., Richardson, R. & Trombley, W. (1997). *State Structures for the Governance of Higher Education: A Comparative Study*. California Higher Education Policy Center, San Jose

Boyd, R., & Apps, J. (1980). *Redefining the discipline of adult education*. Jossey-Boss

Britannica Student Encyclopedia, 2004

Brown, P., Green, A. & Lauder, H. (2001). *High Skills*. Oxford University Press.

Brown, R.H. (2002). Overcoming Educational Exclusion. *The American Behavioral Scientist*, 45(7), 1061. Retrieved September 15, 2005, from ABI/INFORM Global database.

Bucy, E., Lang, A., Potter, R., & Grabe, M. (1999). Formal Features of Cyberspace: Relationships between Web Page Complexity and Site Traffic. *Journal of the American Society for Information Science*. 50 (13). 1246-1256.

Burton-Jones, A. (1999). *Knowledge Capitalism*. Oxford University Press.

Caldart, C. (1983). Industry Investment in University Research. *Science, Technology, & Human Values*, 8(2), 24-32.

Cantor, J.A. (2000). Higher education outside of the academy. *ERIC Digest*, Retrieved September 15, 2005 from http://eric.ed.gov/ERICDocs/data/ericdocs2/content_storage_01/0000000b/80/2a/31/a8.pdf

- Carr, N.G. (1999). Redesigning business. *Harvard Business Review*, 77(6), 19-21.
- Celestino, M.L. (1999). Executive Education: Business Education Follow Business Around the World. *World Trade Magazine*, 12(7), 84-85.
- Chakravorti, S., Daniels, V., & Lassar, W. Enhancing Interfirm Performance Through Internet Driven Management of Interorganizational Knowledge and Resources, *Developments in Marketing Science*, Volume XXVI (The Academy of Marketing Science).
- Chudnow, C. (2001). Knowledge Management Tools *Computer Technology Review*, 21(11), 28-30.
- Clarke, T. (2001). The knowledge economy. *Education & Training*, 43(4/5), 189.
- Claver-Cortes, E., Lopez-Gamero, M., Molina-Azorin, J. & Zaragoza-Saez, P. (2007). Intellectual and environmental capital. *Journal of Intellectual Capital*, 8(1), 171-178.
- Conceicao, P., Heitor, M.V., & Oliveira, P.M. (1997). Reasonable Expectations for the University in the Age of the “Knowledge Based Societies.” *1st International Conference on Technology Policy and Innovation*. Macau.

Conceicao, P., Heitor, M.V., & Oliveira, P.M. (1998). Expectations for the University in the Knowledge-Based Economy.” *Technological Forecasting and Social Change*, 58, 203-214.

Conceicao, P., & Heitor, M.V. (2002). University-based entrepreneurship and economic development: A learning-centred model. *International Journal of Technology Policy and Management*, 2(3).

Conger, J.A., Xin, K. (2000). Executive Education in the 21st Century. *Journal of Management Education*, 24(1), 73. Retrieved September 15, 2005, from ABI/INFORM Global database.

Conger, J.A. (1998). Education for Leaders: Current Practices, New Directions. *Journal of Management Systems*, 10(2), 81-90.

Conger, J.A. (1993). The Brave New World of Leadership Training. *Organizational Dynamics*, 21(3), 46-58.

Cowan, R. and Foray, D. (1997). The Economics of Codification and the Diffusion of Knowledge. <http://icc.oxfordjournals.org/cgi/content/abstract/6/3/595>.

Creswell, J. (1994). *Research Design: Qualitative and Quantitative Approaches*, Sage Publications, Thousand oaks, CA

Crotty, P.T., & Soule, A.J. (1997). Executive education: yesterday and today, with a look at tomorrow. *Journal of Management Development*, 16(1). 4-21.

D'Cruz, C., Ports, K. & Shaikh, M. (2003). Florida Tech Senior Design Commercialization and Entrepreneurship Program, presented at 2003 conference of *International Association for Management of Technology*.

Dalton, A. (2006). Certifiable SKILLS. *PM Network*, 20(2), S10-S14.

Daniels, V. (2003). Building a successful business advisory board. *MBAR Journal*, 4(1), 51-56

Daniels, V. (2005). *The Global Chameleon*, DISC

Davenport, P. (2001). Universities and the knowledge economy. *Ivey Business Journal* 65(5), 64.

Davenport, T.H. (2003). Strategy for the knowledge economy. *Strategy & Leadership*, 31(2), 56.

David, P.A. (2002). Public dimensions of the knowledge-driven economy: A brief introduction to the OECD/CERI project. *OECD/CERI Study Group Memorandum*. 1-18.

David, P.A., & Foray, D. (2001-2002). Economic Fundamentals of the Knowledge Society. *Stanford Institute for Economic Policy Research*.

Davis, J., Mehta, K.T. (1997). Reengineering a School of Business of the Future: A Mission/Vision model Higher Education in Transformational Times. *S.A.M. Advanced Management Journal*, 62(2), 8. Retrieved September 15, 2005, from ABI/INFORM Global database.

Despres, C. & Chauvel, D. (2000). The Present and the promise of Knowledge Management, *Business Management*.

Dirkx, J.M., Gilley, W. & Gilley, A. (2004). Change Theory in CPE and HRD: Toward A Holistic View of Learning and Change in Work. *Advances in Developing Human Resources*, 6(1), 35.

Dorweiler, V., & Yakhou, M. (2005). A Scorecard on Intellectual Capital Performance in the Economy *Journal of American Academy of Business*, 7(1), 322-326.

Douglas, M. (2002). Why 'soft skills' are an essential part of hard world of business. *The British Journal of Administrative Management*, (34), 34-35.

Drucker, P. F. (1994). The Age of Social Transformation. *The Atlantic Monthly*, November, 1994.

Drucker, P. F. (1999). Beyond the Information Revolution. *The Atlantic Monthly*, October, 1999.

Duffy, J. (2001). Knowledge management finally becomes mainstream *Information Management Journal*, 35(4), 62-65.

Durant, W. *Our Oriental Heritage* (1954). Simon and Schuster.

Durant, W. *The Life of Greece* (1939). Simon and Schuster.

Edler, J. "German Pilot Study." Knowledge Management in German Industry: German Study in the Framework of the OECD Study. Fraunhofer Institute for Systems and Innovation Research.

Enterprise Florida. <http://www.eflorida.com/>.

Edvinsson, L, Sullivan, P (1996), "Developing model for managing intellectual capital", *European Management Journal*, Vol. 14 No.4.

Epic of Gilgamesh—Tablet XI. (1998). Trans. by Maureen Gallery Kovacs. Electronic Edition by Wolf Carnahan.

Etzkowitz, H., et. al. (2000). The future of the univesity and the university of the future: evolution of ivory tower to entrepreneurial paradigm. *Research Policy*, 29.

Ezzedeen, S.R. (2003). Human Resource Management in the Knowledge Economy: New Challenges, New Roles, New Capabilities. *Personnel Psychology*, 56(4), 1067.

Fincham, R & Roslender, R. (2003). Intellectual capital accounting as management fashion: a review and critique. *European Accounting Review*, 12(4), 781-796.

Florida Department of Education. <http://www.fldoe.org/Default.asp?bhcp=1>.

Florida Board of Education. (2002). State Universities' Accountability Report.

Foray, D. (2003). The Knowledge Economy: What is it? What is it not? *The Learning Government Symposium: OECD*.

From Global to Metanational: How Companies Win in the Knowledge Economy (2002). *Research Technology Management*, 45(3), 62.

Fulmer, R.M., Vicere, A.A. (1996). Executive Development: An Analysis of Competitive Forces. *Strategy & Leadership*, 24(1),31. Retrieved September 15, 2005, from ABI/INFORM Global database.

Gandossy, R. & Guarnieri, R. (2008). Can You Measure Leadership? *MIT Sloan Management Review*, 50(1), 65-69.

Garnett, J.. (2001). Work based learning and the intellectual capital of universities and employers. *The Learning Organization*, 8(2), 78-81.

Geiger, R. (1985). The Private Alternative in Higher Education. *European Journal of Education*, 20(4), 385-398.

George, G., Zahra, S. & Wood, D. (2002). The effects of business–university alliances on innovative output and financial performance: a study of publicly traded biotechnology companies. *Journal of Business Venturing*, 17, 577-609

Goldin, C., Katz, L.F. (1998). The Origins of State Level Differences in Public Provision of Higher Education: 1890-1940. *The American Economic Review*, 88(2), 303.

Goldin, C., Katz, L.F. (1999) The Shaping of Higher Education: The Formative Years in the United States, 1890 to 1940. *The Journal of Economic Perspectives*, 13(1), 37-62.

Gore, A (1999). 21st Century Skills for 21st Century Jobs, speech given at Vice President's summit, January 12, 1999

Gorski, P. (1998). *Racial and Gender Identity Development in White Male*, University of Virginia

Grant, M. (1994). *The Ancient Historians*. Barnes & Noble Books.

Green, R. (2003). Last Letter Home, Retrieved from
<http://www.perspicacitypress.com/Articles/2003/01/Lastletterhome30126.htm>,
August 22,2005

Gumport P. & Pusser, B. (1997). Restructuring the Academic Environment.
Office of Educational Research and Improvement (OERI), U. S. Department of
Education, NCPI Technical Report 1-05

Gurteen, D. (1998). Knowledge, Creativity and Innovation. *Journal of
Knowledge
Management*, 2(1).

Hackney, S. (1986). The University and Its Community: Past and Present. *Anal
of the American Academy of Political and Social Science*, v. 448, 135-147.

Hafeez, K. & Abdelmeguid, H. (1979). Postsecondary Education and “The Best
Interests of the People of the States.” *The Journal of Higher Education*, 50(2), 121-
131.

Hargreaves, David. (2000). Forum of OECD Education Ministers: Developing
New Tools for Education Policy-Making. Denmark.

Harvard Business Review. (2003). *The Innovative Enterprise*. Harvard Business
School Press, Cambridge.

Harvard Business Review. (1998). *Knowledge Management*. Harvard Business School Press, Cambridge.

Healy, M., & Perry, C. (2000). Comprehensive criteria to judge validity and reliability of qualitative research within the realism paradigm. *Qualitative Market Research – An International Journal*, 3(3), 118-126.

Houghton, D. (2000). Building an academic library website: experiences at De Montford University. *Aslib, The Association for Information Management*, 34(3), 269-280

Hayek, F. (1937). "Economics and Knowledge." *Economica IV*, 33-54.

Hayek, F. (1945). The Use of Knowledge in Society. *American Economic Review*, 15(4), 519-30.

Hopkins, M. & Bilimoria, D. (2008). Social and emotional competencies predicting success for male and female executives. *The Journal of Management Development*, 27(1), 13-35.

Hora, M. & Tick, J. (2001). "From Farm to Table: Making the Connection in the Mid-Atlantic Food System, Capital Area Food Bank of Washington D.C. report.

Hospers, G. (2003). Creative cities in Europe: Urban competitiveness in a knowledge economy. *Intereconomics*, 38(5), 260.

Hossler, D., Lund, J., Ramin, J., Westfall, S. & Irish, S. (1997). State Funding for Higher Education: The Sisyphean Task. *The Journal of Higher Education*, 68(2), 160-190

Howell, S. & McGinn, A. (2006). The Chautauqua Movement and its influence on adult education theory and practice today. *ERIC*.

Huber, G., (1984). The Nature and Design of Post-Industrial Organizations. *Management Science*, 30(8), 928-951.

Huh, C.B., Kim, C.W., & Sikula Sr., A. (2002). A Comparative Analysis of Korean and American Management Education: A Knowledge- Based Odyssey. *International Journal of Value-Based Management*, 15(1), 1.

Hussey, J., Hussey, R., (1997). *Business Research: A Practical Guide for Undergraduate and Postgraduate Students*. Palgrave.

International Association for Management of Technology. (2003).

Independent College & Universities of Florida (ICUF). (2003). Targeting the Independent Higher-Education Industry to Diversify Florida's Economy and Create High-Skills Jobs.

Independent College & Universities of Florida (ICUF). (2002) How to Dominate the On-Line Education Business.

Jarrvis, P. (1999). Global Trends in Lifelong Learning and the Response of the Universities. *Comparative Education*, 35(2), 249-257.

Johanson, U. (1999) Why the concept of human resource costing and accounting does not work. *Personnel Review*, 28(1/2) 91-107

Johnson, R. (1999). Beyond Flexibility: Issues and Implications for Higher Education. *The Higher Education Review*, 32(1), 55-67.

Jones, M.E., Simonetti, J.L., Vielhaber-Hermon, M. (2000). Building a stronger organization through leadership development at Parke-Davis Research. *Industrial and Commerical Training*, 32(2), 44.

Jones, M.E., Simonetti, J.L., Vielhaber-Hermon, M. (2000). Parke-Davis Research. *Industrial and Commercial Training*, 32(2), 44.

Loshin, P. (2001). Knowledge Management *Computerworld*, 35(43), 56-59.

Kallen, D. (1980). University and Lifelong Education: A Crisis of Communication. *European Journal of Education*, 15(1), 61-69.

Kaplan, R. and Norton, D. (1996). *The Balanced Scorecard – translating strategy into action*. Boston: Harvard Business School Press.

Kelsey, J. (1998). Privatizing the Universities. *Journal of Law and Society*, 25(1), 51-70.

Keong, F., Willett, R.J., & Yap, K.L. (2001). Building a knowledge-based business school. *Education and Training*, 43(4/5), 268.

Kerka, S. (1993). Career Education for a Global Economy. *Clearinghouse on Adult Career and Vocational Education*.

Kitajima, M., Blackmon, M. & Polson, P. (. A Comprehension-based Model of Web Navigation and Its Application to Web Usability Analysis. Institute of Cognitive Science, University of Colorado, Boulder.

Klein, J.D. & Richey, R.C. (2005). Improving Individual and Organizational Performance: The Case for International Standards. *Performance Improvement*, 44(10), 9-16.

Knowles, M., Holton, E., Swanson, R. (1998). *The Adult Learner: The Definitive Classic in Adult Education and Human Resource Development*. Gulf Publishing Company

Knott, J. & Payne, A. (2004). The Impact of State Governance Structures on Management and Performance of Public Organizations: A Study of Higher Education Institutions. *Journal of Policy Analysis and Management*, 23(1), 13

Kotler, P. & Murphy, P. (1981). Strategic Planning for Higher Education. *The Journal of Higher Education*, 52(5), 470-489.

Kovacs, M. (1989). *The Epic of Gilgamesh*. Stanford University Press

Kuhn, T., *The Structure of Scientific Revolutions, 1st. ed.*, Chicago: Univ. of Chicago Pr., 1962, p. 168.

Kuhn, T., *The Structure of Scientific Revolutions, 2nd. ed.*, Chicago: Univ. of Chicago Pr., 1970, p. 206.

Laafia, I. (2002). Weiterer Anstieg der Beschäftigung in Hightech und wissensintensiven Sektoren in der EU im Jahr 2001. *Statistik kurz gefasst*, 9(4), 1-7.

Laws, E., Prideaux, B., & Moscardo, G. (2006), *Managing Tourism and Hospitality Services*, CAB International

Lee, W., Jones, P., Mineyana, Y. & Zhang, X (2002), Cultural differences in responses to a likert scale, *Research in Nursing and Health*, 25(4) pp 295-306.

Lewis, A. (2007). Attention to Soft Skills. *Tech Directions*, 66(6), 6.

Leydesdorff, L., Dolfsma, W., & van der Panne, G. (2004). Measuring the Knowledge Base of an Economy in terms of Triple-Helix Relations among 'Technology, Organization, and Territory.' *Research Policy*.

Liebowitz, J. (1999). *Knowledge Management Handbook*. CRC Press, Boca Raton.

Liedtka, J., Weber, C. & Weber, J.. (1999). Creating a significant and sustainable executive education experience: A case study. *Journal of Managerial Psychology*, 14(5).

Lindley, E. (2002). Linking the learning organisation with strategy: The learning square. *Training & Management Development Methods*, 16(3), 115.

Litecky, C., Arnett, K. & Prabhakar, B. (2004). The paradox of soft skills versus technical skills in is hiring. *The Journal of Computer Information Systems*, 45(1), 69-76.

Lundvall, B-A. (2002). The University in the Learning Economy. DRUID Working Paper No. 02-06.

Lundvall, B-A. (2004). Why the new economy is a learning economy. DRUID Working Paper No. 04-01.

MacFrlane, A. (1998). Information, Knowledge and Learning *Higher Education Quarterly*, 52(1), 77-92.

Maclure, S. (1988). *Education Reformed*. Hodder and Stoughton, London.

Malik, S.M., Volkwein, J.F. (1997). State Regulation and Administrative Flexibility at Public Universities. *Research in Higher Education*, 38(1), 17-42.

Marr, B. & Chatzkel, J. (2004). Intellectual capital at the crossroads: managing, measuring, and reporting of IC. *Journal of Intellectual Capital*, 5(2), 224-229.

Marr, B. (2004). Measuring and benchmarking intellectual capital. *Benchmarking: An International Journal*, 11(3), 1-14.

Marr, B., & Moustaghfir, K. (2005). Defining intellectual capital: a three-dimensional approach. *Management Decision*, 43(9), 1114-1128.

Marr, B., & Schiuma, G. (2003). Business Performance Measurement—Past, Present, and Future. *Management Decision*, 41(8), 680-687.

Marr, B., & Spender, J.C. (2004). Measuring knowledge assets – implications of the knowledge economy for performance measurement. *Measuring Business Excellence*, 8(1), 18-27.

Maurer, J. & Pierce, H. (1998) A comparison of Likert scale and traditional measures of self-efficacy, *Journal of applied psychology*, 83(2), pp 324-329

McDaniel, O. (1996). The paradigms of governance in higher education systems. *Higher Education Policy*, 9(2), 137-158

Meso, P and Smith, R (2000). A resource-based view of organizational knowledge management systems. *Journal of Knowledge Management*, 4(3), 224-234.

Mian, S. (1996). Assessing value-added contributions of university technology business incubators to tenant firms. *Research Policy*, 25(3), 325-335

Millard, R.M. (1979). Postsecondary Education and “The Best Interests of the People of the States.” *The Journal of Higher Education*, 50(2), 121-131.

Monideepa, T. (2005). Analyzing the Influence of Web Site Design Parameters on Web Site Usability *Information Resources Management Journal*, 18(2), 62-71.

Moon, Y. & Kym, H. (2006). A Model for the Value of Intellectual Capital. *Canadian Journal of Administrative Sciences*, 23(3), 253-269.

Moore, E.H. (2003). Targeting the Independent Higher-Education Industry to Diversify Florida’s Economy and Create High-Skill Jobs. Tallahassee.

Moring, C. (2001). Skills for knowledge management--building a knowledge economy: a report by TFPL Ltd. *Journal of Documentation*, 57(4), 563.

Muneo, K., et al. A Comprehension-based Model of Web Navigation and Its Application to Web Usability Analysis. National Institute of Bioscience and Human Technology, Japan. Institute of Cognitive Science, University of Colorado, Boulder.

Murphy, B. 1996). *The Reader's Encyclopedia*, Collins

Muzio, E., Fisher, D., Thomas, E., Peters, V. (2007). Soft Skills Quantification (SSQ) For Project Manager Competencies. *Project Management Journal*, 38(2), 30-38.

Myrsiades, L. (2001). Looking to Lead: A Case in Designing Executive Education from the Inside. *The Journal of Management Development*, 20(9/10), 795-812.

NASA-KSC/Florida Minority Institution Entrepreneurial Partnership. (1997).

Nonaka, I. & Takeuchi, H. (1995). *The Knowledge-Creating Company*. Oxford University Press.

Nonaka, I., Toyama, R., Konno, N., (2000). SECI, Ba and Leadership: a Unified Model of Dynamic Knowledge Creation. *Long Range Planning* 33. pp 5-34.

- Nonaka, I. "A Dynamic Theory of Organizational Knowledge Creation," *Organization Science* (5:1), Feb 1994, pp 14-37.
- Norreklit, H (2000). The Balance on the Balanced Scorecard – a critical analysis of some of its assumptions. *Management Accounting Research*, 11(1).
- Norreklit, H, (2003). The Balanced Scorecard: what is the score. A rhetorical analysis of the Balanced Scorecard. *Accounting, Organizations and Societ*., 28, 591-619.
- Norris, M, Mason, J, Robson, R, Lefere P. & Collier G (2003). A revolution in knowledge sharing. *Educause Review*. September-October, pp 14-25.
- Nyman, M. (2006). Want to Be a Topflight Leader? Hone Your People-skills. *Chemical Engineering*, 113(8), 63-65.
- Ok, W. & Tergeist, P. (2002). Supporting Economic Growth Through Continuous Education and Training—Some Preliminary Results. *Meeting of National Economic Research Organisations*.
- Oleksiyenko, A. (2002). The Entrepreneurial Response of Public Universities. *Canadian Society for the Study of Higher Education*, 22.

Organization for Economic Co-Operation and Development (OECD). (1996). The Knowledge-Based Economy. *Organization for Economic Co-operation and Development*. Paris.

OECD. (1999a). Education: New Economy, New Challenges? *OECD Highlights* (19).

OECD. (1999b). Measuring Knowledge in Learning Economies and Societies. Draft report on Washington Forum. *Organisation for Economic Cooperation and Development*.

OECD. (2001). Competencies for the Knowledge Economy. *Organisation for Economic Cooperation and Development*. 100-118.

OECD. (2002). Investment in Human Capital Through Post-Compulsory Education and Training: Selected Efficiency and Equity Aspects.

OECD. (2003a). Conclusions from the results of the survey of knowledge management practices for ministries/departments/agencies of central government in OECD member countries.

OECD. (2003b). Knowledge Management in Government: An Idea Whose Time Has Come.

OECD. (2004). Lifelong Learning. *OECD Observer*. 1-7.

Palmintera, D., Bannon, J., Levin, M. & Pagan, A. (2000). Developing High-Technology Communities: San Diego. *Small Business Research Summary*, 198.

Parish, P. (1997). *Reader's guide to American History*. Fitzroy Dearborn

Persaud, A. (2001). The knowledge gap. *Foreign Affairs*, 80(2),107.

Polanyi, M. (1958). *Personal Knowledge. Towards a Post Critical Philosophy*.
Routledge

Polanyi, M. (1966). *The Tacit Dimension*. Doubleday

Pont, B., Werquin, P. (2001). How old are new skills? *Organisation for Economic Cooperation and Development: The OECD Observer*, 225(15), 3.

Prager, D.J., & Omenn, G.S. (1980). Research, Innovation, and University-Industry Linkages. *Science*, 207(4429), 379-384.

Proenza, L.M. (2002/2003). The Role of Higher Education In Economic Development. *Executive Speeches*, 17(3), 25-32.

Quinn, J.B., Anderson, P. and Finkelstein, S. (1996). Managing professional intellect: making the most of the best, *Harvard Business Review*, March-April, pp 71-80.

Raymond, L. (2003). Globalization, the Knowledge Economy, and Competitiveness: A Business Intelligence Framework for the Development SMES. *The Journal of American Academy of Business, Cambridge*, 3(1/2), 260-269.

Rea, L & Parker, R. (1997). *Designing and Conducting Survey Research*, Jossey-Bass

Richards, H & Schwartz L. (2002). Ethics of qualitative research: are there special issues for health services research? *Family Practice*, 19: 135–139.

Rimar, S. (2001). *The Yale Physician's Guide to Business*. Wiley

Riveros, L. (1998). Management Education in the 21st Century (Developing Countries) *Zeitschrift fur Betriebswirtschaft*, 68(1), 5-8.

Roffe, I. (1999). Innovation and creativity in organisations: a review of the implications for training and development. *Journal of European Industrial Training*, 23/4/5, 224-237.

Rogers, J. (2001). Six keys to B2C e-commerce success. *Insurance and Technology*. 26(8). 49-55.

Rounce, K., Scarfe, A., & Garnett, J. (2007). A work-based learning approach to developing leadership for senior health and social care professionals. *Education + Training*, 49(3), 218-226

Rowley, J. (2000). Is higher education ready for knowledge management? *The International Journal of Educational Management*, (14/7), 325-333.

Ruch, R. (2002). *Higher Ed, Inc: The Rise of the For-Profit University*, Johns Hopkins University Press.

Ryan, D. P. (1988). Papyrus. *The Biblical Archaeologist*, 51(3), 132-140.

Saggs, H. (1989). *Civilization before Greece and Rome*, Yale University Press.

Salopek, J. (2006). Certification: A New Industry Trend. *T + D*, 60(2). 24-26.

Scott, J. (1999). The Chautauqua Movement: Revolution in Popular Higher Education. *Journal of Higher Education*, 70(4), 389-412.

Scott, J. (2005). The Chautauqua Vision of Liberal Education. *History of Education*, 34(1), 41-59.

Scott, J. (2006). The Mission of the University. *Journal of Higher Education*, 77(1), 62-81.

Secretary's Conference on Educational Technology. (2000). Foreword: A New Economic Landscape. www.ed.gov/rschstat/eval/tech/techconf00/ohiofinal.pdf.

Sedore, D. (2003). Education Tops Agenda at Deerfield Beach, Fla., Economic Summit, *Knight Ridder Tribune Business News*, 1.

Singh, R. (2005). The Missing "Soft Skills" for Project Controls. *AACE International Transactions*, DE11-DE12.

Sizer, J., Research and the Knowledge Age. (2001). *Tertiary Education and Management*, 7(3), 227.

Smith, A. (1776). *An Inquiry into the Nature and Causes of the Wealth of Nations*

Smith, M.K. (2003). Michael Polanyi and tacit knowledge. *the encyclopedia of informal education*, www.infed.org/thinkers/polanyi.htm. Last updated: June 04, 2005.

Standler, R. (2003). *Accreditation of Universities in the USA*, www.rbs2.com/accred.htm. Last updated April 21, 2003.

Starr, T. (2001). Leading the education function into the future. *Benefits Quarterly*, 17(4), 65.

Stephens, C.U. (2001). The ontology of trust and the transformation of capitalism in a knowledge economy - A commentary on Paul Adler's "market, hierarchy, and trust: The knowledge economy and the future of capitalism." *Organization Science*, 12(2), 238.

Sterndale-Bennett, B. (2001). Defining knowledge management. *The British Journal of Administrative Management*, 26, 26.

Stewart, T. (1997), *Intellectual Capital: The New Wealth of Nations*, Nicholas Brealy, London

Stokes, P.J. (2006). Hidden in Plain Sight: Adult Learners Forge a New Tradition in Higher Education. *The Secretary of Education's Commission on the Future of Higher Education*. Issue Paper.

Sutton, W. (1900). Proceedings of the Southern Association of Colleges and Preparatory Schools: The Unification of College Degrees. *The School Review*, 8(2), 92- 123.

Sveiby, K. (1997). *The New Organizational Wealth: Managing and Measuring Knowledge-based Assets*. San Francisco: Berrett-Koehler.

Tan, H., Plowman, D & Hancock, P. (2007). Intellectual capital and financial returns of companies. *Journal of Intellectual Capital*, 8(1), 76-95.

Tarafdar, M. & Zhang, J. (2005). Analyzing the Influence of Web Site Design Parameters on Web Site Usability. *Information Resources Management Journal*, 18(4), 62-81.

Tellis, W., (1997). Application of a Case Study Methodology. *The Qualitative Report*. Vol. 3. No. 3.

Thanki, R. (1999). How do we know the value of higher education to regional development? *Regional Studies*, 33(1), 84-89.

Thapisa, A. (1999). Training for the real working world in an information economy. *Library Management*, 20(2), 84.

Thompson, P. & Guile, D. (1994). Matching skills: a question of demand and supply, *Education and Training*, 36(2), 3-10.

Trow, M.T. (1996). Markets and Accountability in Higher Education: a Comparative Perspective. *Higher Education Policy*, 9(4), 309-324.

Turner, J. (1989). The Open Market in Higher Education: The Universities and the Future. *British Journal of Educational Studies*, 37(2), 99-110.

United Nations (1993), *System of National Accounts – 1993*, Section 1.69

- van Vught, F. (1999). Innovative Universities. *Tertiary Education and Management*, 5(4), 347.
- VandeCreek, L. (2005). Usability analysis of Northern Illinois University Libraries' website: a case study. *OCLC Systems & Services*, 21(3), 181-192
- Varian, H., Litan, R., Elder, A. & Shutter, J.. (2002). The Net Impact Study: The Projected Economic Benefits of the Internet in the United States, United Kingdom, France and Germany. *Cisco Systems, Inc.*
- Vicere, A.A. (1998). Changes in Practices, Changes in Perspectives: The 1997 International Study of Executive Development Trends. *Journal of Management Development*, 17(7), 526-543.
- Vickery, G. (1999). Business and industry policies for knowledge-based economics. *OECD Observer*, No. 215.
- Vickery, G., and Wurzburg, G. (1996). Flexible Firms, Skills and Employment. *OECD Observer*, No. 202.
- Vickers, J. (2007). Biomedical Momentum in Florida's High Tech Corridor. *Business Facilities*, December, 2007.

Volkwein, J., Malik, S., Napierski-Prancl, M. (1997). Administrative Satisfaction and the Regulatory Climate at Public Institutions. AIR 1997 Annual Forum Paper. North East Association for Institutional Research.

Wadley, G. & Martin, A. (1993). The origins of agriculture – a biological perspective and a new hypothesis. *Australian Biologist*, (6), 96-105.

Walcott, S.M. (2002). Analyzing an Innovative Environment: San Diego as a Bioscience Beachhead. *Economic Development Quarterly*, 16(2), 99-114.

Wainwright, C. (2001). Knowledge management: Aspects of knowledge. *Management Services*, 45(11), 16.

Weisdorf, J. (2006). From domestic manufacture to Industrial Revolution: long-run growth and agricultural development. *Oxford Economic Papers*, 58(2), 264

Wood, J. (2003). Australia: An Under Performing Knowledge Nation? *Journal of Intellectual Capital*, 4(2), 144.

Yin, R. (1994). *Case study research: design and methods*. Sage Publications, Inc.

Yusuf, S. (2000). Where the World is Heading Toward: Globalization, localization, and the pattern of development. World Bank, Development Economics Research Group.

Zelkowitz, M. (1994). Assessing Software Engineering Technology Transfer within NASA. Institute for Advanced Computer Studies and Department of Computer Science.

Zemsky, R., Shapiro, D., Ianozzi, M., Cappelli, P. & Bailey, T. (1998). The Transition from Initial Education to Working Life in the United States of America. OECD.

Zumeta, W. (1996). Meeting the Demand for Higher Education Without Breaking the Bank: A Framework for the Design of State Higher Education Policies for an Era of Increasing Demand. *The Journal of Higher Education*, 67(4), 367-425.

APPENDIX A: Universities in the State of Florida

Independent Colleges and Universities

Barry University

(305) 899-3000

11300 N.E. Second Avenue, Miami Shores, FL 33161

Beacon College

(352) 787-7660

105 E Main Street, Leesburg, FL 34748

Bethune-Cookman College

(386) 481-2000

640 Dr. Mary McLeod Bethune Blvd., Daytona Beach, FL 32114

Clearwater Christian College

(727) 726-1153

3400 Gulf-to-Bay Blvd., Clearwater, FL 33759

Eckerd College

(727) 867-1166

4200 54th Avenue South, St. Petersburg, FL 33711

Edward Waters College

(904) 366-2715

1658 Kings Road, Jacksonville, FL 32209

Embry Riddle Aeronautical University

1 (800) 862-2416

600 S. Clyde Morris Boulevard, Daytona Beach, FL 32114

Flagler College

(904) 829-6481

74 King St., St. Augustine, FL 32084 [Map](#)

Florida College

(813) 988-5131

119 N. Glen Arven Avenue, Temple Terrace, FL 33617

Florida Hospital College of Health Sciences

(407) 303-9798

800 Lake Estelle Drive, Orlando, FL 32803

Florida Institute of Technology

(321) 674-8000

150 W. University Blvd., Melbourne, FL 32901

Florida Memorial College

(305) 626-3600

15800 NW 42 Ave., Miami, FL 33054

Florida Southern College

(863) 680-4111

111 Lake Hollingsworth Dr, Lakeland, FL 33801

International College

(239) 513-1122

2655 Northbrooke Drive, Naples, FL 34119

Jacksonville University

(904) 256-8000

2800 University Boulevard North, Jacksonville, FL 32211

Lynn University

(561) 237-7000

3601 North Military Trail, Boca Raton, FL 33431

Nova Southeastern University

1 (800) 541-6682

3301 College Avenue, Ft. Lauderdale, FL 33314

Palm Beach Atlantic University

(561) 803-2000

901 S. Flagler Dr., West Palm Beach, FL 33401

Ringling School of Art and Design

(941) 351-5100

2700 North Tamiami Trail, Sarasota, FL 34234

Rollins College

(407) 646-2000

1000 Holt Ave., Winter Park, FL 32789

Saint Leo University

(352) 588-8283

33701 State Road 52, Saint Leo, FL 33574

Southeastern College

(863) 667-5000

1000 Longfellow Boulevard, Lakeland, FL 33801

St. Thomas University

(305) 625-6000

16400 NW 32nd Ave., Miami, FL 33054

Stetson University

(386) 822-7100

421 N. Woodland Blvd., DeLand, FL 32723

University of Miami

(305) 284-2211

University of Miami, Coral Gables, FL 33124

University of Tampa

(813) 253-3333

401 W. Kennedy Blvd., Tampa, FL 33606

Warner Southern College

(863) 638-1426

13895 Hwy 27, Lake Wales, FL 33859

Webber International University

1 (800) 741-1844

1201 North Scenic Highway, Babson Park, FL 33827

The following are the universities in the state system:

Florida Agricultural and Mechanical University

(850) 599-3796

Florida Agricultural and Mechanical University, Tallahassee, FL 32307

Florida Atlantic University

(561) 297-7300

777 Glades Road PO Box 3091, Boca Raton, FL 33431

Florida Gulf Coast University

1 (800) 590-3428

10501 FGCU Blvd. S., Ft. Myers, FL 33965

Florida International University

(305) 348-2000

Florida International University, Miami, FL 33199

Florida State University

(850) 644-2525

Florida State University, Tallahassee, FL 32306

New College of Florida

(941) 359-4269

5700 North Tamiami Trail, Sarasota, FL 34243

University of Central Florida

(407) 823-2000

4000 Central Florida Blvd., Orlando, FL 32816

University of Florida

(352) 392-3261

University of Florida, Gainesville, FL 32611

University of North Florida

(904) 620-1000

4567 St. Johns Bluff Rd. S., Jacksonville, FL 32224

University of South Florida

(813) 974-2011

4202 E. Fowler Avenue, Tampa, FL 33620

University of West Florida

(850) 474-3000

11000 University Parkway, Pensacola, FL 32514

APPENDIX B – Participant Survey

Dear participant:

The input from this survey will be very helpful in determining the specific reasons you are taking part in this continuing education program. It will also give valuable input into how you find and choose a particular program to enroll in.

The information you provide on this survey instrument will be kept confidential and your identity will not be revealed.

Thank you for your participation.

☐ I do not wish to take part in this survey.

Program: _____

1. Gender

☐ Male ☐ Female

2. Age group

☐ 20-29 ☐ 30-39 ☐ 40-49 ☐ 50-59 ☐ 60 and over

3. Education completed

☐ High School ☐ Associate Degree ☐ Bachelor degree ☐ Masters degree ☐ Doctorate

4. Which best describes your position in your organization

- ☐ Not employed
 ☐ Executive
 ☐ Manager/Supervisor
 ☐ Specialist
 ☐ Administrator
 ☐ Assistant
- ☐ Other

5. Please rank the following statements as to their influence in motivating you to take part in this continuing education program. Rankings are as follows:

- 0 Not applicable
- 1 Not important in motivating me to take part in this program
- 2 Low importance, but somewhat affected my decision to enroll in this program
- 3 Important. This knowledge, or these skills are important to my future success
- 4 Very important. Not having these skills or this knowledge will be detrimental to my career development.
- 5 Highest importance. Absolutely essential for continued success

PLEASE CIRCLE ONE RANKING PER ROW	0	1	2	3	4	5
Increase skills and knowledge in my current career/profession	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Prepare for transition to a different career/profession	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Enhance skills and knowledge to advance in current career/profession	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Move into a management/leadership position	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Move to a higher level management/leadership position	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Be recognized as an expert in my current career/profession	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Other. Please explain. <i>Write clearly</i>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Other. Please explain. <i>Write clearly</i>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

6. How did you learn of this program? (Circle one)

- ☐ Email
 ☐ Referral
 ☐ Internet
 ☐ Other: _____
- blast search

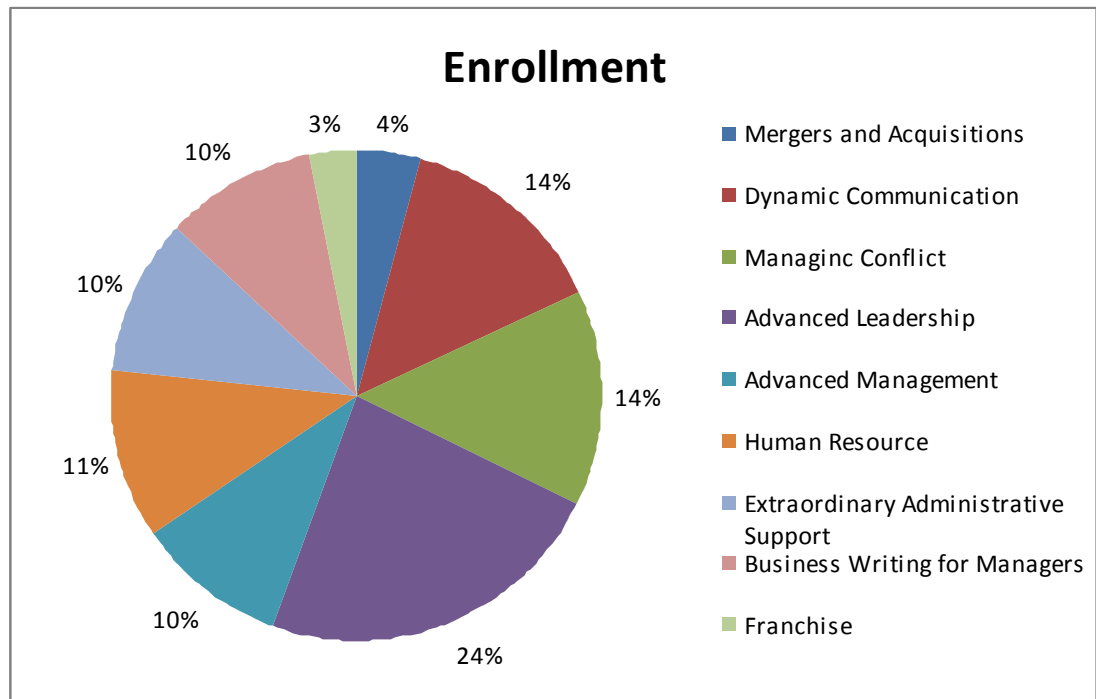
7. How do you get most of your information about continuing education courses? Circle all that apply.

☐ Specific websites
☐ Internet search
☐ Program catalogs or brochures
☐ Other: _____

The following are tabulations of responses to the questionnaire administered by the HIEEE to participants in EPE programs. These descriptive statistics are accompanied by comments where applicable in Chapter 6.

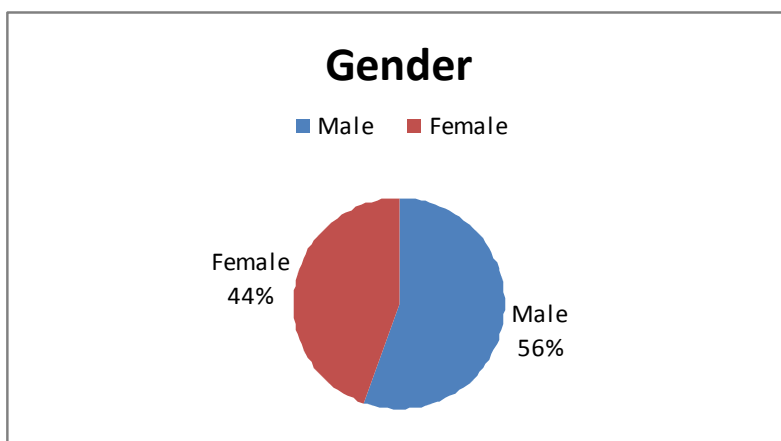
Participants in the survey took part in nine different programs, as follows:

Mergers and Acquisitions	4
Dynamic Communication	14
Managing Conflict	14
Advanced Leadership	23
Advanced Management	10
Human Resource	11
Extraordinary Administrative Support	10
Business Writing for Managers	10
Franchise	3



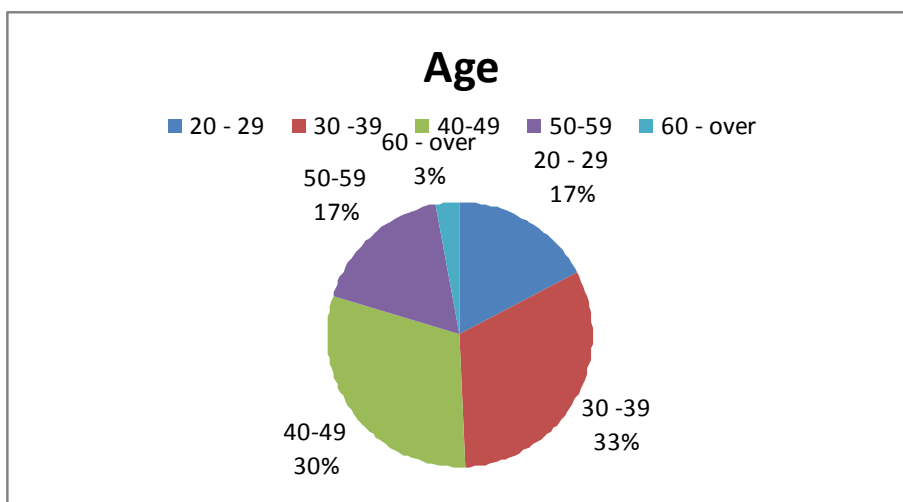
1. Gender

Male	55
Female	44



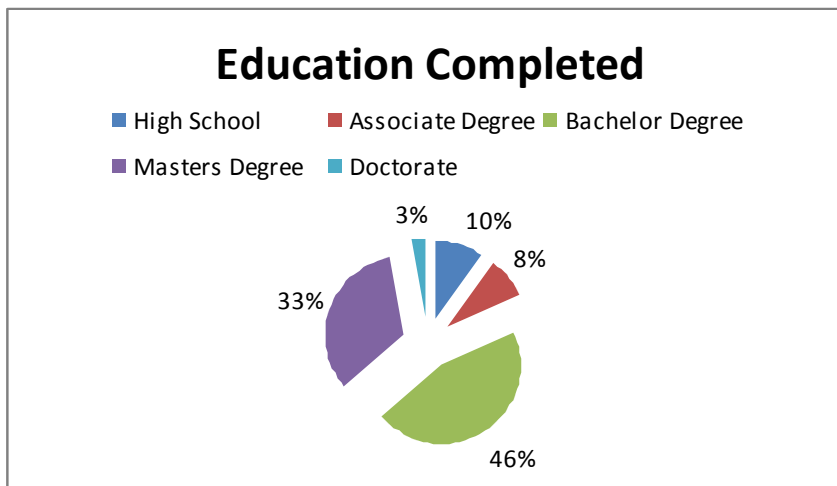
2. Age

20 - 29	17
30 -39	32
40-49	30
50-59	17
60 - over	3



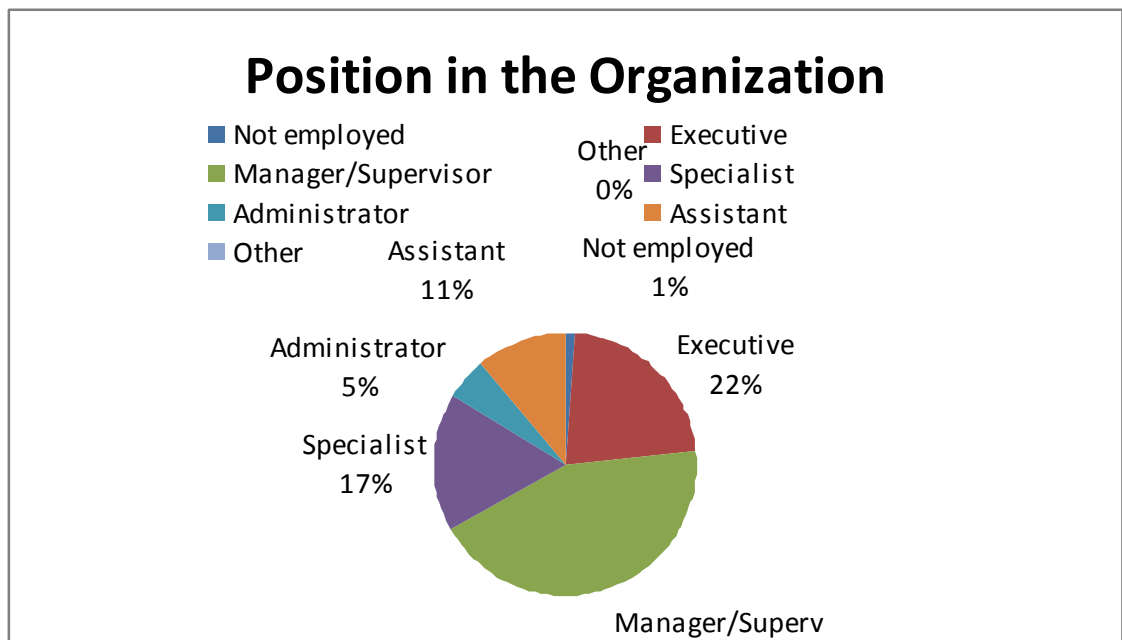
3. Education Completed

High School	10
Associate Degree	8
Bachelor Degree	45
Masters Degree	33
Doctorate	3



4. Which best described your position in the organization?

Not employed	1
Executive	22
Manager/Supervisor	43
Specialist	17
Administrator	5
Assistant	11
Other	0



Question 5 consists of several opportunities to rank various statements.

These questions gauge the motivation of participants for taking the particular EPE program. The question 5 is:

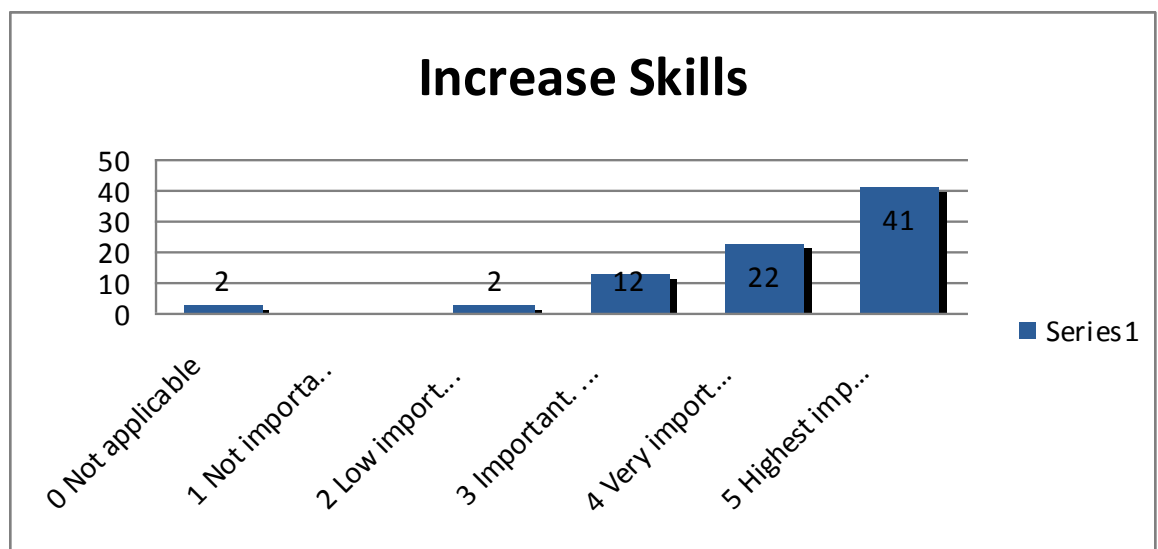
Please rank the following statements as to their influence in motivating you to take part in this continuing education program.

1. Increase skills and knowledge in my current career/profession
2. Prepare for transition to a different career/profession
3. Enhance skills and knowledge to advance in current career/profession
4. Move into a management/leadership position
5. Be recognized as an expert in my current career/profession
6. Other. Please explain.

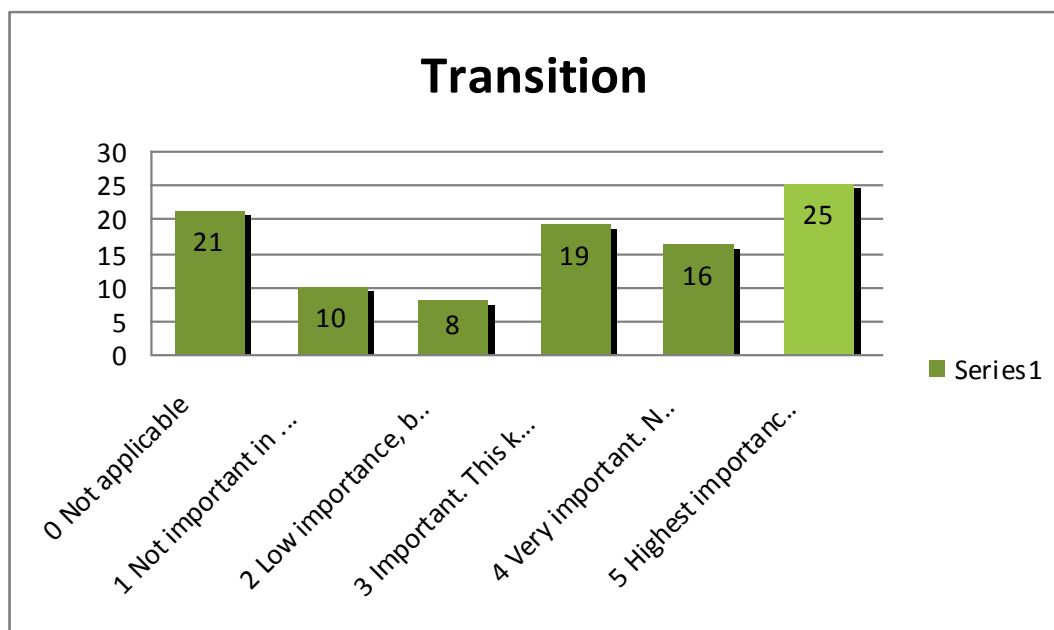
Participants were asked to rate each of these on a scale of 0 through 5, as follows:

0. Not applicable
1. Not important in motivating me to take part in this program
2. Low importance, but somewhat affected my decision to enroll in this
program
3. Important. This knowledge, or these skills are important to my future success
4. Very important. Not having these skills or this knowledge will be detrimental
to my career development.
5. Highest importance. Absolutely essential for continued success

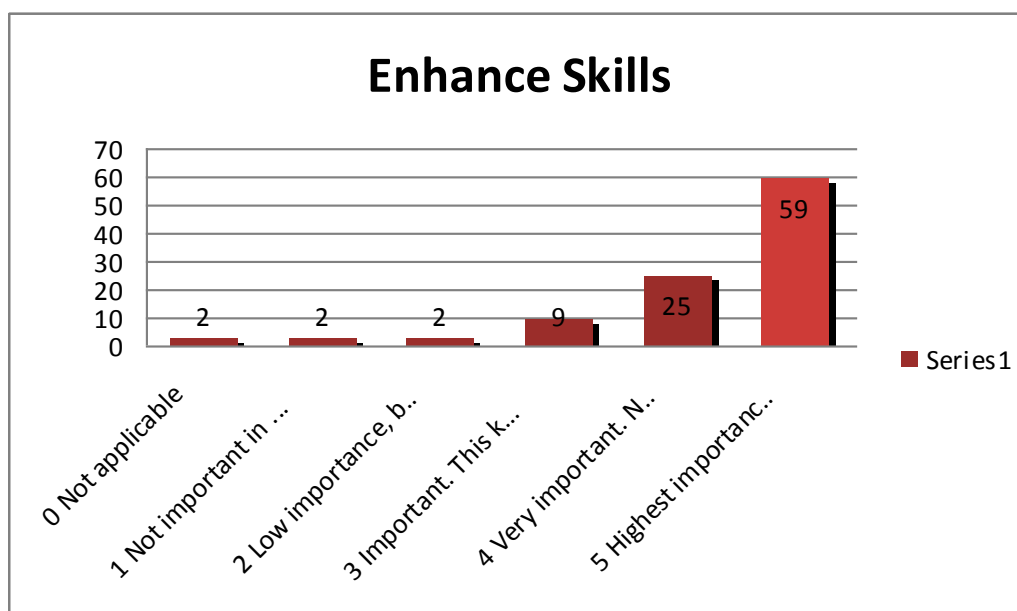
Increase skills and knowledge in my current career/profession	
0 Not applicable	2
1 Not important in motivating me to take part in this program	
2 Low importance, but somewhat affected my decision to enroll in this program	2
3 Important. This knowledge, or these skills are important to my future success	12
4 Very important. Not having these skills or this knowledge will be detrimental to my career development.	22
5 Highest importance. Absolutely essential for continued success	41



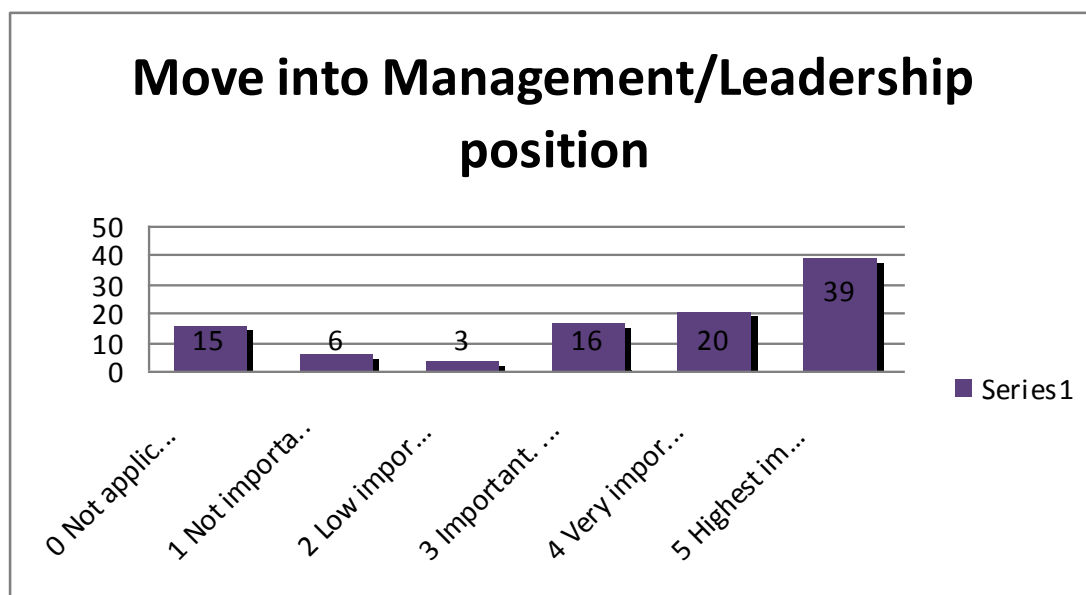
Prepare for transition to a different career/profession	
0 Not applicable	21
1 Not important in motivating me to take part in this program	10
2 Low importance, but somewhat affected my decision to enroll in this program	8
3 Important. This knowledge, or these skills are important to my future success	19
4 Very important. Not having these skills or this knowledge will be detrimental to my career development.	16
5 Highest importance. Absolutely essential for continued success	25



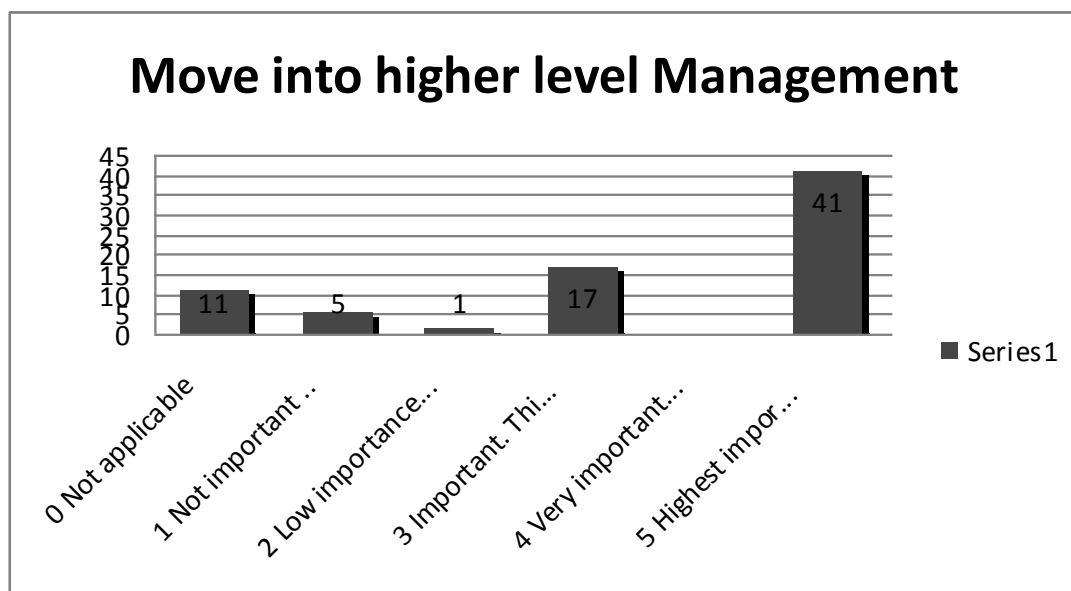
Enhance skills and knowledge to advance in current career/profession	
0 Not applicable	2
1 Not important in motivating me to take part in this program	2
2 Low importance, but somewhat affected my decision to enroll in this program	2
3 Important. This knowledge, or these skills are important to my future success	9
4 Very important. Not having these skills or this knowledge will be detrimental to my career development.	25
5 Highest importance. Absolutely essential for continued success	59



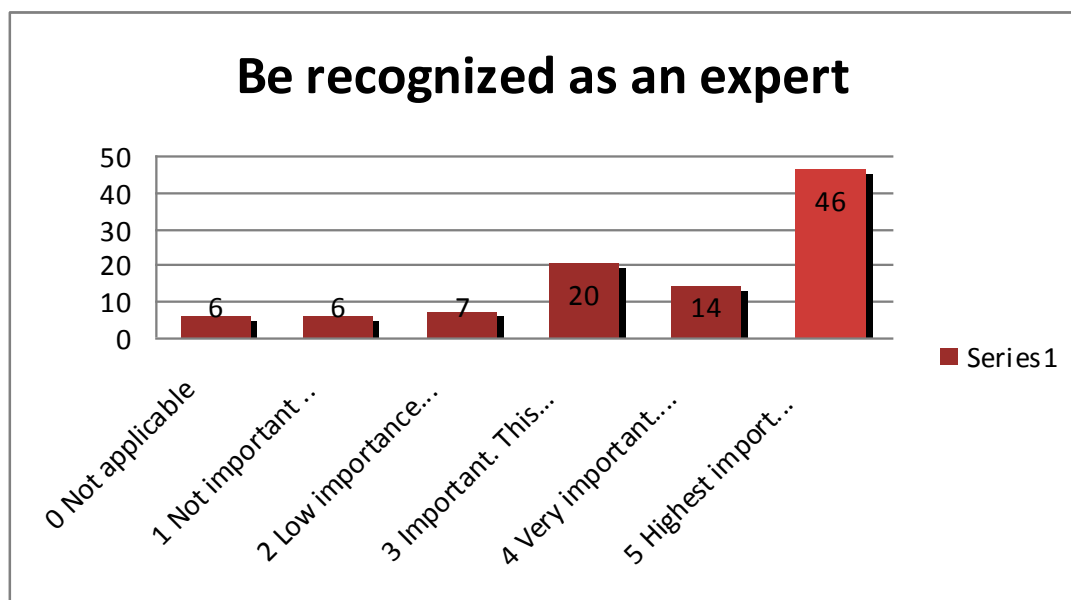
Move into a management/leadership position	
0 Not applicable	15
1 Not important in motivating me to take part in this program	6
2 Low importance, but somewhat affected my decision to enroll in this program	3
3 Important. This knowledge, or these skills are important to my future success	16
4 Very important. Not having these skills or this knowledge will be detrimental to my career development.	20
5 Highest importance. Absolutely essential for continued success	39



Move to a higher level management/leadership position	
0 Not applicable	11
1 Not important in motivating me to take part in this program	5
2 Low importance, but somewhat affected my decision to enroll in this program	1
3 Important. This knowledge, or these skills are important to my future success	17
4 Very important. Not having these skills or this knowledge will be detrimental to my career development.	
5 Highest importance. Absolutely essential for continued success	41



Be recognized as an expert in my current career/profession	
0 Not applicable	6
1 Not important in motivating me to take part in this program	6
2 Low importance, but somewhat affected my decision to enroll in this program	7
3 Important. This knowledge, or these skills are important to my future success	20
4 Very important. Not having these skills or this knowledge will be detrimental to my career development.	14
5 Highest importance. Absolutely essential for continued success	46



Other
Personal intellectual enhancement
grow personally and professionally
Obtain certification from a professional association
Enhance communication skills in the workplace.

APPENDIX C – MAP OF THE STATE OF FLORIDA

