

Running Head: THE IMPACT OF TRAINING AND ITS INTEGRATION

The Impact of Training and Its Integration in Firm Strategies on Firms' Competitiveness:

A Top Management Perspective

Vichet Sum

Southern Illinois University Carbondale

TABLE OF CONTENTS

<u>CHAPTER</u>	<u>PAGE</u>
CHAPTERS	
CHAPTER 1 – Introduction	1
CHAPTER 2 – Literature Review	10
CHAPTER 3 – Research Methodology	27
REFERENCES	32
APPENDICIES	
Appendix A – Questionnaire	40
Appendix B – Cover Letter	43

CHAPTER 1

INTRODUCTION

Nature of the Study

Porter (2000) applied three models of economies to analyze countries' national competitiveness; they are resource-based, investment-based, and innovation-based economies. The focus of the resource-based economy is on the utilization of existing resources from the land and sea, physical equipment, industrial plants, etc. to generate wealth to enhance the quality of life of all the people. The investment-based economy places the emphasis on investments to create more wealth for the country. The innovation-based economy focuses on the investment in research and development (R&D) and human capital in developing and introducing innovative products and services to improve quality life and create more wealth.

According to Porter, countries with resource-based economy are least competitive compared to countries with investment-based and innovation-based economy; countries with innovation-based economy are the most competitive. This implies that for countries to remain competitive in this globally linked economy, they need to switch from resource-based economy/investment-based economy to innovation-based economy. For instance, the United States is currently operating in the innovation-based or knowledge-based economy. Other countries, such as Singapore, Taiwan, South Korea, are in the process of transition from investment-based economy to innovation-based economy (Porter, 2000). In addition, Gate (2007) stated that:

Innovation is the source of U.S. economic leadership and the foundation for our competitiveness in the global economy. Government investment in research, strong intellectual property laws and efficient capital markets are among the reasons that America has for decades been best at transforming new ideas into successful businesses. (Washington Post, p. B07)

Moreover, Porter (1990) introduced the Diamond Model to assess the competitive advantage of the industrialized nations. Porter's Diamond Model consists of firm strategy, structure and rivalry, demand conditions, related supporting industries, and factor conditions. The concept of Porter's Diamond Model views firms in a particular country as core drivers of the economy and national competitiveness. In 2002, National Association of State Workforce Board Chairs (NASWBC) confirmed the concept of Porter's Diamond Model, when it wrote:

Although the events of September 11, 2001 have certainly refocused our national security priorities, the knowledge and skills of our workers remain a critical issue for our nation in regard to economic competitiveness and national security. The globalization of trade puts the U.S. in direct competition with nations producing high-quality goods with lower labor costs. To remain competitive, businesses are reorganizing work processes, moving labor-intensive production to nations with cheaper labor, automating low-skill jobs, and relying on workers to use their skills to problem-solve, trouble shoot and improve productivity. As a result, jobs are being shed at record rates, while companies across all industry sectors are clamoring over an inadequate supply of skilled workers. As companies

increasingly employ a global workforce, the U.S. can no longer afford the luxury of leaving any citizen behind with inadequate knowledge and skills to compete. The personal prosperity of our citizens and the economic security of our nation will require uniting our education, economic development, and workforce development strategies in a common effort to equip our citizens with higher skills and supply our businesses with qualified workers. (NASWBC, 2002, p. 5)

In the case of the United States, the implication drawn from Porter (1990) and NASWBC (2002) indicates that firms are the core drivers of the U.S. economy and national competitiveness. Nevertheless, there is a growing gap between the supply and demand of highly-skilled workers (Judy & D'Amico, 1997; Gates, 2007; NASWBC, 2002) that are key drivers of U.S. firms. The Bureau of Labor Statistics (BLS) projects a 14 percent increase in U.S. job openings between 1998 and 2008, yet labor force growth of only 12 percent over the same period. In addition, the U.S. economy will create 14.1 million new jobs that require advanced skills (some post-secondary and above) and only 6.2 million new jobs requiring basic and minimal skill level (dropouts and high school graduates) between, 1998-2008 (BLS, 1998). Furthermore, forty-six million college educated baby boomers are getting ready to retire over the next 20 years, and by 2020, there will be deficit of at least 12 million people with some college-level education that will be needed to fill the vacancies created by the knowledge-based economy (Carnevale, 2001). According to Kirsch, Sum, and Taggart (2002), literacy of American adults ranks 10th out of 17 for high-income countries. There is a large gap between highly-educated and poorly-educated adults in the US. Addressing the growing gap between the supply and demand of highly skilled workers, Rice (as cited in NASWBC, 2002) stated:

The growing international trend toward democracy and market economies will only be positive for the United States if our job structure in the new economy matches our workers' skill sets. There is a growing gap between the knowledge-based, technology intensive jobs that are driving the U.S. Economy, and the skills of American workers. Education is the top national security issue of the 21st Century. (p. 5)

In addition to Rice's comment, David Sampson, U.S. Assistant Secretary of Commerce for Economic Development (as cited in NASWBC, 2002) stated:

Unless the skills gap within the U.S. is closed and employers can find the workers they need, and job seekers have the skills to pursue the opportunities that will exist, then America's economy will remain extremely vulnerable...The Stakes are high: freedom of trade and commerce; personal and political liberty; and national and individual security. (p. 6)

To address these issues, NASWBC (2002) proposed that the solution to bridge the supply-and-demand gap is through innovative and responsive education and training (NASWBC, 2002). The chairman of Microsoft Corp, Bill Gates echoed this notion by stating that:

The most important factor is our workforce. Scientists and engineers trained in U.S. universities -- the world's best -- have pioneered key technologies such as the microprocessor, creating industries and generating millions of high-paying jobs... Two steps are critical. First, we must demand strong schools so that young Americans enter the workforce with the math, science and problem-solving skills they need to succeed in the knowledge economy. We must also make it easier for

foreign-born scientists and engineers to work for U.S. companies. (Washington Post, 2007, p. B07)

In addressing the supply-and-demand gap of hi-tech workers, Gates (2007) went on to suggest that “American competitiveness also requires immigration reforms that reflect the importance of highly skilled foreign-born employees. Demand for specialized technical skills has long exceeded the supply of native-born workers with advanced degrees, and scientists and engineers from other countries fill this gap” (Washington Post, p. B07).

To sum up, the implication drawn from the above discussion reveals that the United States is operating in the innovation-based economy, and U.S. firms are the key drivers of the U.S. national economy and competitiveness. In the knowledge-based economy, U.S. firms become more and more dependent on the skills and knowledge of their workers. The United States, however, is facing a shortage of highly skilled workers to compete in the global knowledge-based economy, and workforce education and training have become one of the solutions for U.S. firms to compete in the global knowledge-based economy. As a result, another important implication is that U.S. firms, facing fierce competition and ever rapidly changing market environments in the global knowledge-based economy, must provide and integrate training in their business strategies to improve productivity, efficiency, customer service, staff retention and other key drivers of corporate profitability in the knowledge-based economy if they want to be more profitable and competitive in the industries. Several recent studies have documented the impact of training and its integration in firms’ strategy on firms’ competitiveness (Baird & Henderson, 2001; Dockery, 2001; NCVER, 2002; Turcotte, 2002; Nikandrou & Papalexandris, 2007).

Purpose of the Study

The purpose of this study was to investigate the relationship between training and its integration in various firm strategies and various measures of firms' competitiveness in the U.S. Fortune 500 companies.

Statement of the Problem

There is a strong consensus among policy makers, practitioners, academicians and researchers alike that training is one of the solutions for firms to compete in the global knowledge-based economy. However, there are few studies addressing the relationship between training and its integration in various firm strategies and various measures of firms' competitiveness. Therefore, a study to investigate the impact of training and its integration in firm strategies on firms' competitiveness is needed.

Research Hypotheses

To achieve the purpose [to investigate the relationship between training and its integration in various firm strategies and various measures of firms' competitiveness in the U.S. Fortune 500 companies] of this study, the investigator intended to prove the following hypotheses as perceived by human resource managers and/or training directors of U.S. Fortune 500 companies:

Hypothesis 1a: Training helps firms respond easily and quickly to new opportunities and threats.

Hypothesis 1b: There is a correlation between the integration of training in firm business strategies and the extent that training helps firms respond easily and quickly to new opportunities and threats.

Hypothesis 2a: Training increases firms' productivity.

Hypothesis 2b: There is a correlation between the integration of training in firm business strategies and the extent that training increase firms' productivity.

Hypothesis 3a: Training increases firms' efficiency.

Hypothesis 3b: There is a correlation between the integration of training in firm business strategies and the extent that training increases firms' efficiency.

Hypothesis 4a: Training helps firms differentiate themselves in the marketplace.

Hypothesis 4b: There is a correlation between the integration of training in firm business strategies and the extent that training helps firms differentiate themselves in the marketplace.

Hypothesis 5a: There is a positive relationship between training and firms' innovation.

Hypothesis 5b: There is a correlation between the integration of training in firm business strategies and firms' innovation.

Significance of the Study

The results of this study will add more attention to training as companies seek to remain competitive in the market place. In addition, the investigator hopes that the findings of this study add credibility to human resource development (HRD) professionals. Finally, this study contributes to training and development, human resource management, and strategic human resource management literature.

Limitation and Delimitation of the Study

The generalizability of this study is limited to the degree to which other populations fit the characteristics of the one studied. Another shortcoming is that the investigation can be questioned because mid-level managers and functional employees

are excluded. As for delimitation, this study is limited to the perception of human resource managers and/or training directors of the U.S. Fortune 500 companies only.

Definition of Terms

Competitiveness. A firm's competitiveness refers to the competitive advantage over its rivals in a particular industry. Porter emphasized that a firm gains a competitive advantage when 1) it is able to generate and sustain profits that are greater than the average for its industry; 2) it manages to deliver the same benefits as its rivals but at a lower cost; 3) when it delivers benefits that exceed those of competing products by differentiating itself in the industry (Porter, 1998).

Differentiation strategy. When the firm develops a product or service with unique attributes which are perceived or valued by customers to be better or different from the same products offered by the rivalry in the industry, the firm is said to employ a differentiation strategy (Porter, 1980).

Cost leadership strategy. Cost leadership strategy refers to the extent that the firm operates at low cost in an industry for a given degree/level of quality compared to its rivals (Porter, 1980).

Focus strategy. The firm employs the focus strategy to concentrate on a narrow market segment, and with that particular segment the firm attempts to obtain either a cost advantage or differentiation (Porter, 1980).

Market penetration strategy. Market penetration is a strategy that the firm employs to obtain growth by using the existing products in its current market segment in order to increase its market share (Ansoff, 1957).

Product development strategy. Product development is a strategy for growth which is employed by the firm to develop new products for its existing markets (Ansoff, 1957).

Market development strategy. The strategy that the firm uses to achieve growth by targeting its existing products to new markets is called market development (Ansoff, 1957).

Diversification strategy. When the firm seeks to develop new products for new markets, the firm is said to pursue the diversification strategy (Ansoff, 1957).

Innovation. Innovation is “the application of new ideas to the products, processes or any other aspects of firm’s activities” (Rogers, 1998b, p. 5).

CHAPTER 2

LITERATURE REVIEW

Defining Competitiveness

One of the most prominent and widely respected researchers in the area of competitiveness is Michael E. Porter. According to Porter (1998), a firm's competitiveness refers to the competitive advantage over its rivals in a particular industry. Porter emphasized that a firm gains a competitive advantage when 1) it is able to generate and sustain profits that are greater than the average for its industry; 2) it manages to deliver the same benefits as its rivals but at a lower cost; 3) when it delivers benefits that exceed those of competing products by differentiating itself in the industry. Porter asserted that a competitive advantage enables the firm to provide superior value for its customers and generate superior profits for itself in the industry. In addition, Porter pointed out that a firm creates a competitive advantage through the utilization of its resources and capabilities. In other words, the firms are said to have competitive advantages when they are able to differentiate themselves in the marketplace, generate greater revenues and operate at lower costs than their competitors.

In addition, in measuring countries' national competitiveness, Porter presented three types of economies; they are resource-based, investment-based, and innovation-based economy. Porter proposed that for countries to remain competitive they need to move from resource-based and investment-based economy [either gradually or swiftly] to innovation-based economy (Porter, 2000). In addition to Porter, Gate (2007) stated that:

Innovation is the source of U.S. economic leadership and the foundation for our competitiveness in the global economy. Government investment in research, strong intellectual property laws and efficient capital markets are among the reasons that America has for decades been best at transforming new ideas into successful businesses. (Washington Post, p. B07)

Moreover, Turcotte (2002) used “innovation” as an independent variable to measure firm competitiveness. This implies that innovation is a key to sustaining competitive advantages. Innovation is defined by Rogers (1998b) as “the application of new ideas to the products, processes or any other aspects of firm’s activities” (p. 5). In its innovation survey, the Australian Bureau of Statistics (1996) defined innovation as:

Any new or substantially improved good or service which has been commercialized, or any new substantially improved process used for the commercial production of goods and services. 'New' means new to your business. (ABS Innovation Survey questionnaire, Section B)

In 2004, Convergys Corporation (CVG) conducted a survey with over 300 senior executives in human resource, finance, and operations at U.S. and European companies with revenues of greater than \$1 billion and found that a well-trained and flexible workforce could acclimatize quickly and easily to new opportunities and threats. Furthermore, the same study suggested that by having a well-trained and flexible workforce, companies can generate greater revenues; minimize operational costs; and differentiate themselves in marketplace by having a structure that is clearly aligned with corporate objectives, goals and strategy. The finding of this survey suggests that in order

for firms to stay competitive; they need to be ready to respond to new business opportunities and threats (CVG, 2004).

People and Firms' Competitive Advantage

In knowledge-based economy, researchers and practitioners alike agree that knowledge and human capital are becoming increasingly vital for a firm's competitive advantage. Barney (1991) provided three basic types of resources which are used by firms to generate competitive advantages in the industry; they are physical capital resource, organizational capital resources and human capital resource. Physical capital resources consist of firm's plant, equipment, and finances. Organizational capital resources include the firm's structure, planning, controlling, coordinating, and human resource system. Human capital resources are the skills, judgment, and intelligence of the people in the organization. In addition, Wright, McMahan, and McWilliams (1994) applied the resource-based concept to investigate how human resources help firm to obtain sustainable competitive advantages in the industry. Barney and Wright (1998) applied the VRIO (value, rareness, inimitability and organization) model to explain how people are the source for competitive advantages by providing some interesting examples. For instance, Barney and Wright wrote:

Increasing revenues, on the other hand, is a more foreign goal to HR managers but one in which they can play an important role. For example, Federal Express (now FedEx) illustrates the value created by human resources. Federal Express managers stress that they are a "people-first" organization. FedEx philosophy is that people are the primary link in the value chain, and thus, value is created by focusing first on employees. (p.33)

In the same article, Barney and Write provided another interesting example of how people are the key to a firm's competitive advantage. The researchers wrote:

For example, Nordstrom's exists in the highly competitive retailing industry. This industry is usually characterized as having relatively low skill requirements and high turnover for sales clerks. Nordstrom's, however, has attempted to focus on individual salespersons as the key to its competitive advantage. It invests in attracting and retaining young, college-educated sales clerks who desire a career in retailing. It provides a highly incentive-based compensation system that allows Nordstrom salespersons to make as much as twice the industry average in pay. The Nordstrom culture encourages sales clerks to make heroic efforts to attend to customers' needs, even to the point of changing a customer's flat tire in the parking lot. The recruiting process, compensation practices, and culture at Nordstrom's have helped the organization to maintain the highest sales per square foot of any retailer in the nation. Nordstrom's has taken what is considered to be a relatively homogeneous labor pool and exploited the rare characteristics of its employees to gain a competitive advantage. (p. 34)

Gorman, Nelson and Glassman (2004) examined how new entry-level workers can be better leveraged to generate a competitive advantage. Lopez-Cabrales and Valle (2006) tested the role of core employees in firm competitiveness and found a higher organizational capability and efficiency for firms using the most valuable and unique core employees. In recognizing people as the competitive resource, David Neeleman, Chief Executive Officer (CEO) of JetBlue Airways, argued that:

Great companies and great dynasties and great empires, most of those were not defeated externally. They were defeated from within. Our greatest challenge going forward is how can we continue to inspire our crew members on a daily basis? How can we keep them motivated and let them know the impact they have on our customers? That's our greatest challenge, and that's what keeps me up at night. (Business Week, p. 16)

Along the same line with Neeleman, Herb Kelleher, CEO of Southwest Airlines, stated (as cited in Quick, 1992) that:

Maybe someone could equal the cost . . . possibly they could. And maybe someone could equal the quality of service that goes along with that and constitutes great value . . . possibly they could. But the one thing they would find it impossible to equal very easily is the spirit of our people and the attitude they manifest toward our customers. (Quick, 1992)

Shee and Pathak (2005) discussed two key issues which are people and technology for enhancing the competitiveness of the software industry of India.

Organizational Learning and Firms' Competitive Advantage

Organizational learning is becoming increasingly important for firms in generating competitive advantages. For example, Janz and Prasarnphanich (2003) articulated that organizational learning is believed to deliver creative and innovative solutions, which can result in unique competitive advantages; the researchers went on to suggest that many organizations view their ability to learn as an important resource that can deliver current and future competitive advantages. In addition, Lei (2003) found that learning alliances provide the key organizational design drivers that sustain competitive

advantage. Li and Zhou (2006) suggested that adopting organizational preparation for employee education and learning will have a positive effect on firms' competitive advantages. Slater and Narver (1995) asserted that organizational learning permits firms to have profound understanding of the needs of their customers and develop new products and services to match the needs of those customers. Furthermore, learning organization is related to performance outcomes of new product success, profitability, growth, and customer retention (Farrell, 2000). Baker and Sinkula (1999) found a correlation between learning and firms' overall performance and market share. Hult, Snow and Kandemir (2003) provided empirical evidence when they found that learning has an impact on firms' overall performance compared to their competitors. An implication drawn from their study, the researchers suggest that "learning is the primary means by which firms can develop and new products and processes that ultimately achieve desired success" (Hult, Snow, & Kandemir, 2003, p. 419). Moreover, Jashapara (2003) surveyed senior executives from construction firms in the UK about their organization's learning behaviors and effectiveness and suggested that organizational learning has a positive impact on firms' performance. March (1991) believed that learning can influence both organizational efficiency and innovation. Mahoney (1995) viewed organizational learning as the most critical core competence of organizations.

Furthermore, Kirkwood and Pangarkar (2003) contended that "when learning becomes an integral component of the corporate strategy, is part of the daily activities, and contributes to the development of workers, the organization possesses a sustainable competitive advantage that cannot be copied" (p. 11). They continue by stating that:

Significant and noticeable advantages of learning organizations include:

A reduction in errors and mistakes...Improved quality and innovations...A better understanding of the business...Empowered employees. (p. 11-12)

Furthermore, Applebaum and Gallagher (2000) asserted that there are tremendous rewards for firms that are willing to invest the time and energy in organizational learning.

Training Impact on Firms' Competitiveness

One of the key areas correlated to superior performance is workforce training (Caldeira, 2001). A case study of Reynolds and Reynolds, the leading provider of integrated information management solutions to the automotive retailing marketplace, conducted by Hollis (2002) showed that training drove business success through improving productivity and increasing competitiveness in the marketplace. A report prepared by the Relais International (2002) indicated that British managers are looking to incorporate training as a tool to improve their firm performance and competitiveness. Maurer (2001) concluded that "enhanced employee performance through training has always been recognized as an important means of securing the competitive advantage" (p. 34).

As quoted in the *Engineer*, a magazine serving the UK's engineering technology community, Shorrocks (2003), Icore's human resource manager, asserted that:

Training is a key part of our business strategy and is essential to our competitiveness. We need our people skilled up so that they are at their best at solving customers' problems and making our products efficient and safely. (p. 35)

Whitney (2005) suggested that the deployment of effective business training for firms can increase the chance for organizational success and competitiveness in the long term. In addition, Fawcett and Myers (2001) surveyed 158 managers from randomly selected U.S.

manufacturing firms and found a strong positive correlation (.81) between employee development and firm performance. Moreover, Morton (2002) highlighted the impact of training on the success of the distribution industry by emphasizing that “training workers about safety and continually maintaining the awareness of the need for safe procedures can pay big company benefits” (p. 32) and “hiring and training are the key survival and supply chain success” (p. 33).

The National Centre for Vocational Education Research (NCVER) of Australia (2002) conducted a study of 40 large Asian businesses on training strategies, emerging skill shortages, government investment in training, and the quality of the education and training sector. The respondents were asked to rate their agreement with statements related to training based on a 5-point scale. The results showed that 1) investment in training is an important staff retention tool (4.4); 2) Trained employees will be critical to profitability (4.5); 3) Training is the best way to improve efficiency and cut costs (3.7); 4) minimizes exposure to employee-related liabilities (3.7); 4) provides a more flexible workforce (3.8); 5) allows companies to get best out of new technology (4.4); 6) is a lever for staff performance (4.0); 7) brings new ideas and innovation to the business (4.0); 8) provides product quality and delivery (4.0); 9) is an important tool for attracting and keeping high caliber staff (4.2); 10) is a major element of competitive advantage (4.3); and 11) is an essential element of staying globally competitive (4.5). Russell (2003) cited a study of the competitiveness of the U.S. wood products industry which suggests that U.S. producers will have to place more emphasis on work force training and education in competing against a flood of cheap imported products.

Another approach to understand the training impact on firms' competitiveness is to identify training determinants. For example, in the same study conducted by NCVET, when respondents were asked about the factors influencing training agenda, the results showed the factors that influenced training agenda include growing casualties of jobs (2.9); outsourcing non-core activities (3.2); workplace compliance requirements (3.8); globalization and export focus (4.1); growth of computer/information technology (4.3); attracting and retention staff (4.4); emergence of knowledge economy (4.4); and increasing competitiveness in the marketplace (4.6). The results of this study highlighted major impacts of training on firm's competitiveness (NCVET, 2002). In their study, Smith and Hayton (1999) found similar training drivers; they are workplace change, $r = .36$, new technology and production improvement, $r = .6$, and quality initiatives such as customer service and TQM, $r = .9$. Keep and Mayhew (1996) viewed the link between training and economic performance as a driving force behind corporate training.

Training and Firms' Readiness Preparation for New Opportunities and Threats

A survey with over 300 senior executives in human resource, finance, and operations at U.S. and European companies with revenues of greater than \$1 billion conducted by Convergys Corporation (CVG) showed that 65 percent of corporate executives expressed that in order to gain a competitive advantage in today changing markets, a flexible workforce was required. Nevertheless, those executives said that retaining key talent was quite a challenge due to the extent that the companies did not have the best systems in place to identify skilled employees. They added that fewer training and development programs were being provided to their strategic employees; more training and development programs should be offered to those employees to help

them stay current in the industrial and market trends and technological innovation (CVG, 2004). In its survey, PricewaterhouseCoopers (1998) revealed that 70 per cent of the Fortune 1000 firms indicated that a barrier to growth is a lack of trained employees.

According to these researchers (Adler, 1992; Applebaum & Batt, 1994; Braverman, 1974; Cappelli, 1993; Cappelli & Rogovsky, 1994; d' Iribarne, 1986; Dyer & Reeves, 1995; Finger & Burgin, 1996; Gallie & White, 1993; Kern & Schumann, 1984; MacDuf, 1995; Mathews, 1990, 1994; Osterman, 1995; Piore & Sabel, 1984; Senge, 1990; Watkins & Marsick, 1992; Wilkinson, 1983), the factors that impact management decisions to train employees include 1) employee performance improvement; 2) the improvement of the adaptability and flexibility of the employees; 3) investment in acquiring new technology; 4) new work practices and sophisticated human resource system; and 5) changes in business strategy. Using four case studies in Greek banks, Glaveli and Kufidu (2005) suggested that the role of training aims to maintain, raise, and innovate the core competencies for a strategic positioning of the firm in the industry. In a study to compare training and development practices within and across nine countries and one region, Drost, et al. (2002) reported that training is a means to prepare employees for future job assignments.

Training Impact on Firms' Productivity and Efficiency and Training ROI

Blundell et al. (1999) provided a review of the evidence on the returns to education and training for the individual, the firm and the economy at large. American Society for Training and Development's 2003 State of the Industry Report quantitatively showed a positive relationship between training expenditures and both revenues and profitability (ASTD, 2003). Moreover, another study, funded by the U.S. Department of

Education with the Bureau of Census, determined how training impacts productivity. The results showed that increasing an individual's educational level by 10 percent increases productivity by 8.6 percent; increasing an individual's work hours by 10 percent increases productivity by 6.0 percent; and increasing capital stock by 10 percent increases productivity by 3.2 percent (DOE, 2003). A study conducted by the Learning and Skills Council (a UK government agent responsible for the planning and funding for Further Education colleges; school sixth forms; work-based training for young people; workforce development; adult and community learning; information; advice and guidance for adults; and education business links) found that:

Companies that increased their annual training budget grew profits by 11.4% - those that didn't increased profits by only 6.3%. Learning businesses increased turnover by 66% more than those who didn't invest in training - 15% growth, compared to 9%. Three in four (75%) of companies who have seen measurable staff improvements following training also saw profit increases. Nearly all companies (95%) were in favor of training, saying it is essential for success, with three in four (73%) strongly in favor, but just half (51%) have increased their budget – the key measure that links training strategy to profit making. (p.3)

Using sales per worker and valued-added per worker as measures of productivity, Lyau and Purcel (1995) indicated that 10% increase in training spending per worker led to an increase of 1% in value-added per worker. Other studies provided the evidence to some extent that improved productivity is generated by training (Booth 1991; Brown 1990; Dockery & Norris 1996; Duncan & Hoffman 1996; Freeman 1996; Lillard & Tan 1992; Lynch 1996; Mincer, 1993). In a survey of 18 companies in Hong Kong, Malaysia,

Indonesia, South Korea, Taiwan and Singapore, Chalkely (1991) reported that managers perceived training to generate beneficial outcomes for their firms. Loundes (1999) provided evidence showing the impact of training on firms' productivity improvement. Moreover, Bartel (1991) found that the implementation of new employee training programs significantly increase the productivity. Using the data from the employment opportunities pilot projects (EOPP), Bishop (1990) documented the increase of the productivity of newly hired personnel, which occurred as a result of the participation of firm training program. Holzer, et al. (1991) found that companies that offered more formal training had higher quality work performed by their employees.

As quoted in the *Engineer*, a magazine serving the UK's engineering technology community, Mullin (2003), Bosch Rexroth's personnel manager, stated that "training leads to competent and motivated employees, which in turn leads to fewer problems in the production process and the retention of happier clients" (p. 35). The benefits from training as identified by management include improved occupational health and safety outcomes, greater motivation, lower staff turnover, lower wastage, a more flexible workforce, higher productivity or improved quality of products and services, instilling corporate culture or strategic goals and a range of non-economic benefits (Billet & Cooper, 1997; Dockery et al. 1997; Coopers & Lybrand 1994). In surveys conducted by the Centre for Labour Market Research in Australia, employers believe that training apprentices or trainees to benefit the firms (Dandie et al. 1997; Dockery et al. 1997).

Training Helps Firms Differentiate Themselves in the Marketplace

Kleinfelder (2005), founder of Alternative Technology, emphasized that "training helps salespeople differentiate themselves in the marketplace" (p. 4). A case study

conducted by the Brooks Group (2005) showed that “training had enhanced salespeople to learn to make the most out of their competitive advantages and differentiate themselves and their firm in the marketplace”. In addition, Lowe (2005) discussed about training integration in a firm differentiation strategy. A research study, conducted by Wilson Learning Corporation (a provider of Human Performance Improvement solutions), showed that traditional sources of competitive differentiation – a superior product or service, increased size through mergers and acquisitions, or reductions in price – no longer suffice in today’s business operation environment. Instead, it is interesting to note that many of the leading sales organizations in today arena are creating competitive advantage by equipping their sales people with business consulting skills. By learning a consultative process and identifying more appropriate ways to gain an understanding of the customer’s business then applying these methods effectively, salespeople begin to approach clients from a more strategic standpoint and develop more profitable and compelling solutions (Edina, 2005).

Training and Firms’ Innovation

Turcotte (2002) found that “both classroom and on-the-job training, innovation in products, services and processes, and implementation of new technologies or new software are variables that are positively associated with support for training” (p. 22). Baldwin (1999) conducted a review of a number of Canadian studies and developed a positive linkage between innovation and training. Baldwin and Johnson (1996) found that firms with high level of innovation provide training a larger number of their workers, both through formal and informal platforms. In addition, Baldwin (2000) emphasized the important relationship between innovation, skills and training and the success of start-up

firms. Blundell, et al. (1999) found a direct link between employee education and the ability of those employees to be innovative. By analyzing the data obtained from U.S. firms and their respective employees, Frazis et al. (1998) found firms that have more innovative workplace practices have a tendency to offer more training. In addition, Dockery (2001) found that the proportion of employees receiving on-the-job training is positively and significantly associated with innovation.

Business Strategies

In 1957, Ansoff developed the the Ansoff Product-Market Growth Matrix. The matrix allows firms to grow their businesses through existing and/or new products, in existing and/or new markets. Four strategies are derived from this matrix namely market penetration, market development, product development and diversity. Market penetration is a strategy that the firm employs to obtain growth by using the existing products in its current market segment in order to increase its market share. The strategy that the firm uses to achieve growth by targeting its existing products to new markets is called market development. Product development is a strategy for growth which is employed by the firm to develop new products for its existing markets. Finally, when the firm seeks to develop new products for new markets, the firm is said to pursue the diversification strategy (Ansoff, 1957). Porter (1980) proposed three general types of strategies that are commonly used by businesses; they are cost leadership strategy, differentiation strategy, and focus strategy. Cost leadership strategy refers to the extent that the firm operates at low cost in an industry for a given degree/level of quality compared to its rivals. If the price war takes place in the industry, the firm can remain profitable, yet their competitors suffer losses. When the firm develops a product or service with unique attributes which

are perceived or valued by customers to be better or different from the same products offered by the rivalry in the industry, the firm is said to employ a differentiation strategy. The firm employs the focus strategy to concentrate on a narrow market segment, and with that particular segment the firm attempts to obtain either a cost advantage or differentiation.

Training Integration in Firm Strategy

The top management decision to support training is dependent on the recognition of the strategic vitality of firms' human resources. For instance, Bartel (1991) found that firms that actively planned their human resources were more likely to propose training. Hendry, Pettigrew (1989) and Hendry (1991) examined the function of training as part of the broader human resource strategies of a range of firms in the UK and developed a framework that allows training to become a response in the competitive environment. Moreover, training has been frequently perceived to be integrated with broader structural change and innovation inside the firms. (Billet & Cooper, 1997; Kay et al. 1992; Baker & Wooden 1995; Catts 1996; Coopers & Lybrand 1994; Ichniowski et al. 1996). Geisler and Justus (1998) discussed about the integration of training as a strategic management tool. They wrote:

Without strategic training, organizations invariably end up with a patchwork quilt of corrective procedures and policies that are impossible to follow and impossible to control or monitor. Training all employees to analyze their current work processes allows the employees to understand several things. First, they can appreciate the gaps that may exist between what is currently being done and what needs to be done. Next, they have the opportunity to make corrections in their

systems within a safe environment. Finally, such training provides an opportunity for the employees to contribute to the development of the company and to receive recognition for changing. (p. 25)

McClelland (1994) suggested that human resource managers who are in charge of the design and implementation of the management development and training need to “focus on the corporate vision and long-term growth strategies” (p. 9). The researcher concluded by suggesting that firms that “integrate strategic management development into competitive strategy formulation process will find that they have a greater degree of flexibility in the allocation and efficient usage of their managerial talents while becoming effectively proactive to constantly changing market conditions” (p. 12). Moreover, Nathan and Stanleigh (1991) strongly encouraged training managers to develop a strategic plan that is demonstrably and aligned with the company. Likewise, one of the many benefits from training as identified by management is the instilling corporate culture or strategic goals. (Billet & Cooper, 1997, Dockery et al. 1997; Coopers & Lybrand 1994).

In a survey of 18 companies in Hong Kong, Malaysia, Indonesia, South Korea, Taiwan and Singapore, Chalkely (1991) found that 60% of the firms established training programs to address the skill shortages in their companies. Dockery (2001) suggested that “training needs to be considered in a wider strategic context” (p. 17); he firmly stated that “training is an important tool in the implementation of innovations and other business changes” (p. 53). In the same study, Dockery found a higher training frequency in firms, which had a formal strategic or business plan and conducted formal performance comparisons with other firms. Finally, Dockery wrote:

The results thus provide strong evidence that changes in training occur in tandem with other business changes and innovation -- at least within the same twelve-month time frame. Hence it is clear that training is used to facilitate new developments within a business. (p. 36)

Nikandrou and Papalexandris (2007) examined the practices adopted by successful Greek firms, with acquisition experience, in managing their personnel and found that increased human resource involvement in building organizational capability through training and development activities is one of the main strategic human resource practices implemented by those companies.

CHAPTER 3

RESEARCH METHODOLOGY

The purpose of this study was to investigate the relationship between training and its integration in various firm strategies and various measures of firms' competitiveness in the U.S. Fortune 500 companies. To achieve the purpose this study, the investigator intended to prove the following hypotheses as perceived by human resource managers and/or training directors of U.S. Fortune 500 companies:

Hypothesis 1a: Training helps firms respond easily and quickly to new opportunities and threats.

Hypothesis 1b: There is a correlation between the integration of training in firm business strategies and the extent that training helps firms respond easily and quickly to new opportunities and threats.

Hypothesis 2a: Training increases firms' productivity.

Hypothesis 2b: There is a correlation between the integration of training in firm business strategies and the extent that training increase firms' productivity.

Hypothesis 3a: Training increases firms' efficiency.

Hypothesis 3b: There is a correlation between the integration of training in firm business strategies and the extent that training increases firms' efficiency.

Hypothesis 4a: Training helps firms differentiate themselves in the marketplace.

Hypothesis 4b: There is a correlation between the integration of training in firm business strategies and the extent that training helps firms differentiate themselves in the marketplace.

Hypothesis 5a: There is a positive relationship between training and firms' innovation.

Hypothesis 5b: There is a correlation between the integration of training in firm business strategies and firms' innovation.

Research Design

A non-experimental correlational design is employed to carry out this study. This type of research design fits this study because it allows the researcher to describe statistical relationships between independent and dependent variables. This design involves correlating data on two or more variables for each individual in a sample and computing a correlation coefficient. This type of research design has two advantages 1) allows researchers to determine the relationships among a large number of variables in a single study and 2) providing information concerning the degree of the relationship between the variables being studied (Creswell, 2002). As shown in Figure 1.1, there are two main independent variables; they are "training" and "training integration" in firm strategies. Firms' competitiveness is the main dependent variable. There are seven independent sub-variables in the "training integration in firms' strategies"; they are "differentiation", "cost leadership", "focus", "market penetration", "product development", "market development", and "diversification" strategies. In addition, there are five dependent sub-variables namely "readiness for new opportunities, productivity", "efficiency", "differentiation", and "innovation". The "innovation" dependent sub-variable contains "new product/service design", "introduction of new product/service to the market, "introduction of new business processes", "current product/service improvement" and "current business process improvement". The independent and sub-

independent, dependent and sub-dependent variables, and factors in this study are the product/result of the review of related literature conducted in Chapter Two.

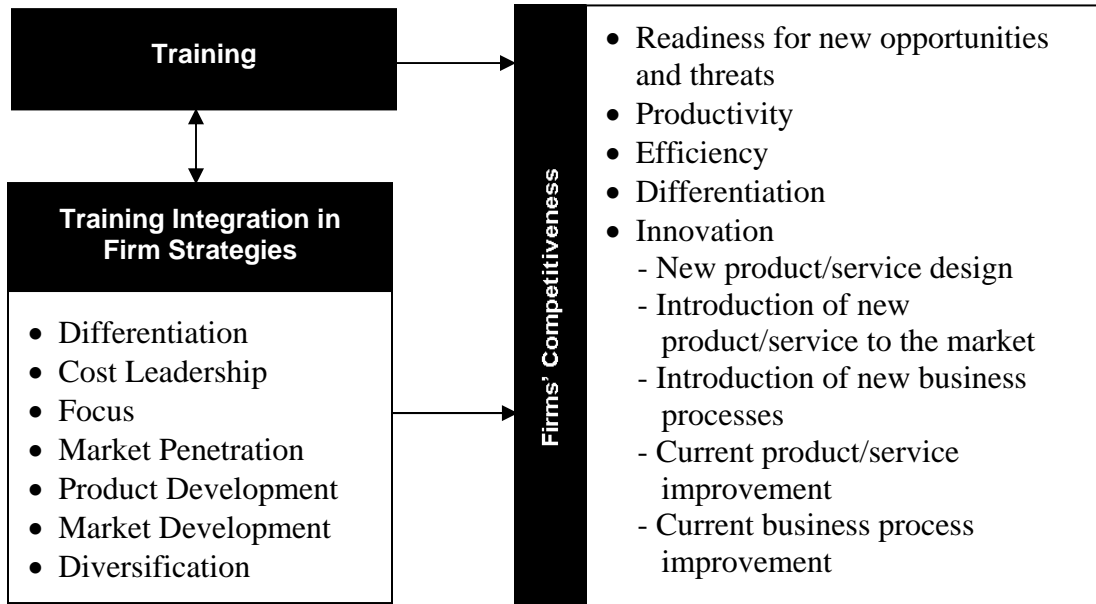


Figure 1.1. Training and its integration in firm strategies on firms' competitiveness

Target Population and Sampling

The target population for this study was the human resource managers and/or training directors of the U.S. Fortune 500 companies. In respect of sampling, this study selected all the 500 companies obtain from <http://www.fortune.com> in 2007 as the sample.

Research Instrument

A survey was used to collect specific data to support the hypotheses proposed in this study. The survey was to obtain the perceptions of human resource managers and/or training directors of U.S. Fortune 500 companies about the impact of training and its integration in firm business strategies on firms' competitiveness. The survey consists of

three parts. The first part asks respondents to rate their level of agreement of the training integration in their firm strategies (item 1 to 7); the second part asks them to rate their level of agreement of the impact of training on the various measures of their firms' competitiveness (item 8 to 16), and the final part asks the respondents to provide their demographical data. Specifically, respondents were asked to rank their level of agreement to the statements presented in the survey. The descriptors of the 5-point Likert-type scale were as follows: 1=very low, 2=low, 3=Medium, 4=High and 5=Very high. In addition, N.A. (not application) option is also provided (see Appendix A).

Validity and Reliability

The items in the survey used in this study were obtained and modified [if necessary to fit the current study] from the existing research instruments used in the following studies. *Training innovation and business performance: Analysis of the business longitudinal survey* (Dockery, 2001); *Competitiveness: An Asian firm perspective* (NCVER, 2002); and *New evidence on the determinants of training in Canadian business locations* (Turcotte, 2002). Proper measures, such as factor analysis and a panel of experts, were used to establish the validity and reliability of the instruments used in these three studies. Because the items in the survey used in this study were obtained from the instruments used in these three studies, the validity and reliability of the instrument in the current study have been established.

Data Collection Process

This study employs a mailed-in survey as the data collection method. The researcher will mail a cover letter, a copy of the instrument, and a self-addressed, stamped, return envelope to 500 subjects on August 9, 2007. The cover letter explains the

purpose of the study, ensured anonymity, and requested participation in the study (see Appendix B). The cover letter also provides directions for completing and returning the questionnaire and clearly states that participation in the study was strictly voluntary. Each survey mailed will contains a code number used for follow-up purposes only.

To increase the response rate, the researcher plans to mail a cover letter, a copy of the instrument, and a self-addressed, stamped, return envelope to the remaining subjects who will have not returned the survey on October 9, 2007. The cut-off date is set to be January 01, 2008.

Data Analysis

Data analysis will take place immediately following the data collection cut off point. Any and all responses that have not been entered into the analysis system will be entered and the collection will be reviewed for accuracy and completeness. Random samples will be pulled from the file of data collection instruments and the corresponding entries will be audited to insure proper data input. The complete computer tabulation of the data collection responses and analysis using Microsoft Excel spreadsheet then SPSS will be performed. The data will be analyzed using Chi-Square. Chi-Square is appropriate because it allows the researcher to establish and determine the significance of the relationship between [independent and dependent] variables based on statistical correlations. The results are represented in the proceeding chapter.

References

- Adler, P. S. (Ed.). (1992). *Technology and the future of work*. Oxford: Oxford University Press.
- American Society for Training and Development. (2003). *State of industry report: Executive summary*. Alexandria, VA: ASTD.
- Ansoff, I. (1957). Strategies for diversification. *Harvard Business Review*, 35(5), 113-124.
- Appelbaum, S. H., & Gallagher, J. (2000). The competitive advantage of organizational learning. *Journal of Workplace Learning*, 12(2), 40 – 56.
- Applebaum, E., & Batt, R. (1994). *The new American workplace: Transforming work Systems in the United States*. Ithaca, NY: Cornell University Press.
- Australian Bureau of Statistics. (1996). *Research and experimental development: Business enterprises*. Canberra, Australia: ABS.
- Baird, L., & Henderson, J.C. (2001). *The Knowledge engine: How to create fast cycles of knowledge-to-performance and performance-to-knowledge*. San Francisco: Berrett-Koehler.
- Baker, M., & Wooden, M. (Eds.). (1995). *Small and medium sized enterprises and vocational education and training*. Adelaide, Australia: National Center for Vocational and Educational Research, ANTARAC.
- Baker, W. E., & Sinkula, J. M. (1999). Learning orientation, market Orientation, and innovation: Integrating and extending models of organizational performance. *Journal of Market Focused Management*, 4(4), 295-308.
- Baldwin, J. R. (1999). *Innovation, training and success*. Ottawa, Canada: Statistics Canada, Analytical Studies Branch.
- Baldwin, J. R. (2000). *Innovation, training and success*. Ottawa, Canada: Statistics Canada, Analytical Studies Branch.
- Baldwin, J. R., & Johnson, J. (1996). Human capital development and innovation: a sectoral analysis. In P. Howitt (Eds.), *The implications of knowledge-based growth for micro-economic policies*. Calgary, Canada: University of Calgary Press.
- Barney, J. (1991). Firm resources and sustained competitive advantage. *Journal of Management*, 17, 99-120.

- Barney, J. B., & Wright, P. M. (1998). On becoming a strategic partner: The role of human resources in gaining competitive advantage. *Human Resource Management, 37*, 31-47
- Bartel, A. P. (1991). *Productivity gains from the implantation of employees training programs*. Cambridge, MA: National Bureau of Economic Research.
- Billet, S., & Cooper, M. (1997). *Returns to enterprises from investment in VET*. Adelaide, Australia: National Center for Vocational and Educational Research.
- Bishop, J. H. (1990). Job performance, turnover, and wage growth. *Journal of Labor Economics, 8*(3).
- Blundell, R., Dearden, L., & Meghir, C. (1999). *Work-related training and earnings*.
- Blundell, R., Dearden, L., Meghir, C., & Sianes, B. (1999). Human capital investment: The returns from education and training to the individual, the firm and the economy. *Fiscal Studies, 20*(1), 1-23.
- Booth, A. L. (1991). Job related formal training: Who receives it and what is it worth? *Oxford Bulletin of Economics and Statistics, 53*(3), 281-94.
- Braverman, H. (1974). *Labor and monopoly capitalism: The degradation of work in the twentieth century*. New York: Monthly Review Press.
- Brown, C. (1990). Empirical evidence on private training. *Research in Labor Economics, 1*(11), 97-113.
- Caldeira, E. (2001). Moving to the next level of profitability. *Professional Builder*. Retrieved May 03, 2007 from <http://www.housingzone.com/probuilder/article/CA466379.html>
- Cappelli, P. (1993). Are skill requirements rising? Evidence from production and clerical jobs. *Industrial and Labor Relations Review, 46*(3), 515-30.
- Cappelli, P., & Rogovsky, N. (1994). New work systems and skill requirements. *International Labour Review, 133*(2), 205-20.
- Carnevale, A. P. (2001, July 27). *The future of education, employment and training policy: A conversation with Tony Carnevale*. Washington, DC: American Youth Policy Forum.
- Catts, R. (1996). *Validating training benefits in the workplace*. Queensland, Australia: University of Southern Queensland, Vocational Education and Training Research Institute.
- Chalkley, A. (1991). Management: The human factor. *Asian Business, 27*(11), 50-3.

- Convergys Corp. (2004, September 23). *New research shows workforce productivity gains exaggerated*. Retrieved May 02, 2007, from http://www.convergys.com/news_release.php?y=2004&q=3&newsid=2050
- Coopers, M., & Lybrand, B. (1994). *TAFE NSW: Training practices and preferences of small businesses in Australia: A report for vocational education and training providers*. Sydney: Coopers & Lybrand Inc.
- Creswell, J. W. (2002). *Research design: Qualitative, quantitative, and mixed method approaches*. Thousand Oaks, CA: Sage Publications.
- d' Iribarne, A. (1987). New training and new skills in factories. *Vocational Training Bulletin, 1*, 7-12.
- Dandie, S., Dockery, A. M., Koshy, P., Norris, K., & Stromback, T. (1997). *Evaluation of the impact of financial incentives on the recruitment of entry level trainees*, EMB report 3/97. Canberra, Australia: Department of Employment, Education and Training, Evaluation and Monitoring Branch.
- Dockery, A. M., & Norris, K. (1996). The "rewards" for apprenticeship training in Australia. *Australian Bulletin of Labor, 22*(2), 109–125.
- Dockery, A. M., Koshy, P., Stromback, T., & Ying, W. (1997). The cost of training apprentices in Australian firms. *Australian Bulletin of Labor, 23*(4), 255–74.
- Dockery, M. (2001). *Training innovation and business performance: An analysis of the business longitudinal survey*. Adelaide, Australia: National Centre for Vocational Education Research Ltd.
- Drost, E. E. (2002). Benchmarking training and development practices: A multi-country comparative analysis. *Human Resource Management, 41*(1), 76-86.
- Duncan G. J., & Hoffman, S. (1996). On the job training and earnings: Differences in race and sex. In O. C. Ashenfelter & R. J. Lalond (Eds), *The economics of training*. Cheltenham, UK: Elgar.
- Dyer, L., & Reeves, T. (1995). Human resource strategies and firm performance: What do we know and where do we need to go. *International Journal of Human Resource Management, 6*(3), 656-70.
- Edina, M. (2005, February 23). Wilson learning study shows impact on sales
- Farrell, M. A. (2000). Developing a market-oriented-learning organization. *Australian Journal of Management, 25*(2), 201–222.

- Fawcett, S. E., & Myers, M. B. (2001). Product and employee development in advanced manufacturing: Implementation and impact. *International Journal of Production Research*, 39(1), 65-79.
- Finger, M., & Burgin, S. (1996, September). *The concept of the learning organization applied to the transformation of the public sector: Conceptual contributions for theory development*. Paper presented to symposium of Organizational Learning and the Learning Organization: Theoretical and Research Developments, Lancaster, UK.
- Frazis, H., Gittleman M., & M. Joyce. (1998). *Determinants of training: An analysis using both employee and employer characteristics, mimeo*. Washington, DC: United States Department of Labor, Bureau of Labor Statistics.
- Gallie, D., & White, M. (1993). *Employee commitment and the skills revolution*. London: PSI.
- Gates, B. (2007, February 25). How to keep America competitive. *The Washington Post*, p. B07.
- Geisler, C. D., & Justus, R. (1998, April). Training: A strategic tool for ISO and QS-9000 implementation. *IIE Solutions*, 24-27.
- Glaveli, N., & Kufidu, S. (2005). The old, the young and the restless: A comparative analysis of the impact of environmental change on training in four Greek banks. *European Business Review*, 17(5), 441-459.
- Gorman, P., Nelson, T., & Glassman, A. (2004). The millennial generation: A strategy opportunity. *Organizational Analysis*, 12(3), 255-270.
- Hendry, C. & Pettigrew, A. (1989). The forces that trigger training. *Personnel Management*, 28-32.
- Hendry, C. (1991). Corporate strategy and training. In W. Eltis (Eds.), *Training and competitiveness* (pp. 79-110). London: Kogan Page Ltd.
- Hollis, E. (2002). *Training drives business success for Reynolds and Reynolds*. Retrieved May 02, 2007, from http://www.clomedia.com/content/templates/clo_casestudies.asp?articleid=2&zoid=9
- Holzer, H. J., Block, R. N., Cheatham, M., & Knott, J. H. (1993). Are training subsidies for firms effective? The Michigan experience. *Industrial and Labor Relations Review*, 46(4).

- Hult, G. T. M., Snow, C. C., & Kandemir, D. (2003). The role of entrepreneurship in building cultural competitiveness in different organizational types. *Journal of Management*, 29(3), 401-426.
- Ichniowski, C., Kochan, T. A., Levine, D., Olson, C., & Strauss, G. (1996). What works at work: Overview and assessment. *Industrial Relations*, 35(3), 299-333.
- Janz, B. D., & Prasarnphanich, P. (2003). Understanding the antecedents of effective KM: The importance of a knowledge-centered culture. *Decision Sciences*, 34(2), 351-384.
- Jashapara, A. (2003). Cognition, culture and competition: An empirical test of the learning organization. *Learning Organization*, 10(1), 31-50.
- Judy, R. W., & D'Amico, C. (1997). *Workforce 2020: Work and workers in the 21st century*. Indianapolis: Hudson Institute.
- Kay, C., Fonda, N., & Hayes, C. (1992). Growing an innovative workforce: A new approach to vocational education and training. *Education and Training*, 34(3), 4-10.
- Keep, E., & Mayhew, K. (1996). Evaluating the assumptions that underlie training policy. In A. Booth and D. Snower (Eds.), *Acquiring skills*. Cambridge: Cambridge University Press.
- Kern, H., & Schumann, M. (1984). *Das ende der arbeitsteilung? (The end of the division of Labor?)*. Munich: C.H. Beck.
- Kirkwood, T., & Pangarkar, A. (2003). Workplace learning - beyond the classroom. *CMA Management*, 77(3), 10-12.
- Kleinfelder, J. D. (2005). *Solutions sales training overview*. Englewood, CO: Alternative Technology Inc.
- Li, L., & Zhao, X. (2006). Enhancing competitive edge through knowledge management in implementing ERP systems. *Systems Research and Behavioral Science*, 23(2), 129-140.
- Lie, D. (2003). Competition, cooperation and learning: The new dynamics of strategy and organization design for the innovation net. *International Journal of Technology Management*, 26(7), 694-716
- Lillard, L. A., & Tan, H. W. (1992). Private sector training: Who gets it and what are its effects. *Research in Labor Economics*, 1(13), 1-62, London: Institute for Fiscal Studies.

- Lopez-Cabrales, A., Valle, R., & HERRERO, I. (2006). The contribution of core employees to organizational capabilities and efficiency. *Human Resource Management* 45(1), 81-109.
- Loundes, J. (1999). *Labor productivity in Australian workplaces: Evidence from the AWIRS*. Melbourne, Australia: University of Melbourne, Melbourne Institute.
- Lowe, S. (2005, December). Is your firm irreplaceable? *Structure Magazine*, 47-48.
- Lyau N. M., & Pucel, D.J. (1995). Economic returns on training investment at the organizational level. *Performance Review Quarterly*, 8(3), 68-79.
- Lynch, L. M. (1996). Private sector training and the earnings of young workers. *The American Economic Review*, 82(1), 299-312.
- MacDuf, J.P. (1995). Human resource bundles and manufacturing performance: Flexible production systems in the world auto industry. *Industrial and Labor Relations Review*, 48(2), 197-221.
- Mahoney, J. T. (1995). The management of resources and the resource of management. *Journal of Business Research*, 33, 91-101.
- March, J. G. (1991). Exploration and exploitation in organizational learning. *Organization Science*, 2, 71-87.
- Mathews, J. (1990). *Tools of change*. Sydney, Australia: Pluto Press.
- Mathews, J. (1994). *Catching the wave*. Sydney, Australia: Allen & Unwin.
- Maurer, T. J. (2001). Career-relevant learning and development, worker age, and beliefs about self-efficacy for development. *Journal of Management* 27, 123-140.
- McClelland, S. (1994). Gaining competitive advantage through strategic management development (SMD). *Journal of Management Development*, 13(5), 4-13.
- Mincer, J. (1993). *Job training; costs, returns, and wage profiles*. In O. C. Ashenfelter & R. J. Lalond (Eds), *The economics of training*. Cheltenham, UK: Elgar.
- Morton, R. (2002). Use training to beat your competition. *Distribution Management*, 32-36.
- Mullin, J. (2003, June 27). Raising skill levels is essential for raising competitiveness. *The Engineer*, p. 35.
- Nathan, A., & Stanleigh, M. (1991). Is your department? *Training and Development Journal*, 45(1), 41-45.

- National Association of State Workforce Board Chairs. (2002, May). *The competitive challenge: Building a world-class workforce*. Washington, DC: NASWBC.
- National Centre for Vocational Education Research. (2002). *Training and competitiveness: An Asian firm perspective*. Adelaide, Australia: NCVER.
- Neeleman, D. (2003). Up front Q and A. *Business Week*, p. 16.
- Nikandrou, I., & Papalexandris, N. (2007). The impact of M&A experience on strategic HRM practices and organizational effectiveness: Evidence from Greek firms. *Human Resource Management Journal*, 17(2), 155–177.
- Osterman, P. (1995). Skill, training, and work organization in American establishments. *Industrial Relations*, 34(2), 125-46.
- performance. *Chief Learning Officer Magazine*. Retrieved May 02, 2007, from <http://www.clomedia.com/common/newscenter/newsdisplay.cfm?id=3719>
- Piore, M., & Sabel, C. (1984). *The Second industrial divide*. New York: Basic Books.
- Porter, M. E. (1980). *Competitive strategy: Techniques for analyzing industries and competitors*. New York: Free Press.
- Porter, M. E. (1998). Clusters and the new economics of competition. *Harvard Business Review*, 76(6), 77-90.
- Porter, M. E. (2000). Location, competition, and economic development: Local clusters in a global economy. *Economic Development Quarterly*, 14, 15-34.
- Porter, M. E. (1990). *The Competitive advantage of nations*. New York: Free Press.
- Quick, J. (1992). Crafting an organizational culture: Herb's hand at Southwest. *Organizational Dynamics*, 21(2), 45-56.
- Relais International. (2002). *British managers demand more training*. Ottawa, Canada: Relais International, Inc.
- Rogers, M. (1998b). *The definition and measurement of innovation*. Melbourne, Australia: University of Melbourne, Melbourne Institute.
- Russell, T. (2003, November 17). Raising skill levels is essential for raising competitiveness. *Furniture/Today*, 18.
- Senge, P. (1990). *The Fifth discipline: The art and practice of the learning organization*. New York: Doubleday.

- Shee, H. K., & Pathak, R. D. (2005). Managing people and technology for enhancing competitiveness: Software industry perspective. *Journal of Transnational Management, 11*(1), 65-82.
- Shorrocks, P. (2003, June 27). Raising skill levels is essential for raising competitiveness. *The Engineer, 35*.
- Slater, S. F., & Narver, J. C. (1995). Market orientation and the learning organization. *Journal of Marketing, 59*, 63-74.
- Smith, A., & Hayton, G. (1999). What drives enterprise training? Evidence from Australia. *The International Journal of Human Resource Management, 10*(2), 251-272.
- Sum, A., Kirsch, I., & Taggart, R. (2002). *The twin challenges of mediocrity and inequality: Literacy in the U.S. from an international perspective*. Princeton, NJ: Educational Testing Service.
- Turcotte, J. (2002). *New evidence on the determinants of training in Canadian business locations*. Quebec, Canada: Human Resources Development Canada.
- U.S. Department of Education & Bureau of Census. (2003). *Training impacts on productivity*. Washington, DC: USDE.
- Watkins, K., & Marsick, V. (1992). Towards a theory of informal and incidental learning in organizations. *International Journal of Lifelong Education, 11*(4), 287-300.
- Whitney, K. (2005, February 9). Business training: The key to project and long-term success. *Chief Learning Officer Magazine*. Retrieved May 02, 2007, from http://www.clomedia.com/content/templates/clo_article.asp?articleid=859&zoneid=102
- Wilkinson, B. (1983). *The shop floor politics of new Technology*. London: Heinemann.
- Wright, P., McMahan, G., & McWilliams, A. (1994). Human resources and sustained competitive advantage: A resource-based perspective. *International Journal of Human Resource Management, 5*, 301-326.

Appendix A

Instructions: This survey should take approximately five to ten minutes to complete. For each of the following items, please circle the appropriate rating. For items that are not applicable, circle "N.A." Please be candid in your responses.

Key:

1 = Very low	2 = Low	3 = Medium	4 = High	5 = Very high	N.A. = Not applicable
--------------	---------	------------	----------	---------------	-----------------------

Level of Agreement

Training integration in firm strategies

My company integrates training in the following business strategies:

- | | | | | | | |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------|---|---|---|---|---|------|
| 1. Differentiation (offer product/service with unique attributes as perceived or valued by customers compared to the same products/services offered by the rivals) | 1 | 2 | 3 | 4 | 5 | N.A. |
| 2. Cost leadership (achieve low cost with a given level of quality) | 1 | 2 | 3 | 4 | 5 | N.A. |
| 3. Focus (differentiation and cost leadership combined) | 1 | 2 | 3 | 4 | 5 | N.A. |
| 4. Market penetration (existing product/service in existing markets) | 1 | 2 | 3 | 4 | 5 | N.A. |
| 5. Product development (new product/service, existing markets) | 1 | 2 | 3 | 4 | 5 | N.A. |
| 6. Market development (existing product/service in new markets) | 1 | 2 | 3 | 4 | 5 | N.A. |
| 7. Diversification (new product/service in new markets) | 1 | 2 | 3 | 4 | 5 | N.A. |

Training impact on firms' competitiveness

- | | | | | | | |
|---------------------------------------------------------------------------------------------------------|---|---|---|---|---|------|
| 8. Training improves the readiness of my firm for current and future business opportunities and threats | 1 | 2 | 3 | 4 | 5 | N.A. |
| 9. Training increases my firm's productivity | 1 | 2 | 3 | 4 | 5 | N.A. |
| 10. Training increases my firm's efficiency | 1 | 2 | 3 | 4 | 5 | N.A. |
| 11. Training helps my firm differentiate itself in the marketplace | 1 | 2 | 3 | 4 | 5 | N.A. |
| 12. Training enhances the design and development of my firm's new products/service | 1 | 2 | 3 | 4 | 5 | N.A. |

Go to the next page 

13. Training contributes to the improvement of my firm's current products/service	1	2	3	4	5	N.A.
14. Training enhances the introduction of my firm's new products/service to the market	1	2	3	4	5	N.A.
15. Training contributes to the improvement of my firm's current business processes	1	2	3	4	5	N.A.
16. Training enhances the introduction of new business processes	1	2	3	4	5	N.A.

Instruction: Please check the appropriate box most closely represents you.

Position/Job Title:

- Human resource manager
 Training director
 Other: _____
[Write your position/job title here]

Gender:

- Male
 Female

Age:

- 21 – 30
 31 – 40
 41 – Older

Number of years working in this current company:

- 1 – 5 years
 6 – 10 years
 More than 10 years

Highest degree obtained:

- Bachelor's Degree
 Master's Degree
 Doctoral Degree (Ed.D, Ph.D. etc)

Appendix B

716 S. University Apt 01
Carbondale, IL 62901

May 03, 2007

Wal-Mart Stores
Department of Human Resource
702 S.W. Eighth St.
Bentonville, AR 72716

Dear Human Resource Manager/Training Director:

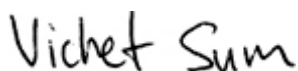
I am writing to invite your participation in a study designed to investigate the relationship between training and its integration in various firm strategies on of firms' competitiveness in the U.S. Fortune 500 companies.

Facing fierce competition and ever rapidly changing market environments in the knowledge-based economy, companies must provide training and integrate training in their business strategies to improve productivity, efficiency, customer service, staff retention and other key drivers of corporate profitability in the knowledge-based economy if they want to be more profitable and competitive in the industries. It is hoped that the results of this study will add more attention to training as companies seek to remain competitive in the market place. In addition, the investigator hopes that the findings of this study add credibility to human resource department for its contribution to firms' competitiveness.

Please take a few minutes to fill out the enclosed survey; your participation is critical in obtaining valid and reliable data for this study. Your participation is completely voluntary and all responses will be kept anonymous and confidential. The survey takes approximately five to ten minutes to complete and there is no risk to you or your company for participating in this survey.

When you have completed the survey, please return it at your earlier convenience by using the enclosed self-dressed, stamped envelope. Please do not enclose your name or contact information on the envelope when your return it. You can telephone me at 618-303-0191 should you have any question about the survey. If you would like a copy of the results of this study, please send an e-mail with your request to: vsum@siu.edu

Sincerely yours,



Vichet Sum, M.M.S (M.B.A), M.T.D, PH.D. Student
Department of Workforce Education and Development
Southern Illinois University Carbondale