Integrating training in business strategies means greater impact of training on the firm's competitiveness

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Abstract

This paper, using the resource-based view of the firm as the theoretical background, is to determine whether the integration of training in the firm's business strategies increases the impact of training on the firm's competitiveness. A regression analysis of the data obtained from a survey of training professionals employed in small, medium, and large firms across three different industries reveals a statistically significant positive regression coefficient, $b = .554$, $t(97) = 6.25$, $p < .001$.

Keywords: Training, Strategic Integration, Firm's Competitiveness

INTRODUCTION

One of the most prominent and widely respected researchers in the area of competitiveness is Michael Porter. According to Porter (1998), a firm's competitiveness refers to the competitive advantage over its rivals in a particular industry. A firm has competitive advantage when it is able to differentiate itself in the marketplace, generates greater revenues and operates at lower costs than its competitors. In addition, innovation "the application of new ideas to the products, processes or any other aspects of firm's activities" (Rogers, 1998b, p. 5) has become one of the key drivers for firms to operate profitably and compete sustainably in the globally linked economies. Porter and Stern (2002) asserted that firms operating in advanced nations whose economies were innovation-based would not obtain sustained competitive advantage if they were not able to "create and then commercialize new products and processes and shift the technology frontier as fast as their rivals can catch up" (p. 2). This implies that innovation is a key to obtaining a sustained competitive advantage.

Theoretical establishment in business strategy has elevated the role of human resources, both as a business function and as a labor, in creating sustained competitive advantage. The resource-based view of the firm (Barney, 1986, 1991, 1995) proposed that firms could create and obtain sustained competitive advantage by creating value in a fashion that is rare and impossible for rivals to imitate. The resource-based view of the firm argues that conventional sources such as natural resources, technology, economies of scale, operational and manufacturing designs etc., can be utilized to generate sustained competitive advantage, yet these sources can be easily copied by competitors. In this case, any sources of sustained competitive advantage that cannot be easily imitated are especially important. The resource-based view of the firm established that people (human resources), a repository of knowledge and skills, can be leveraged to create value in a way that is difficult for competitors to imitate (Barney, 1991).

People are the strategic assets meaning "the set of difficult to trade and imitate, scarce, appropriable, and specialized resources and capabilities that bestow the firm's competitive advantage" (Amit & Shoemaker, 1993, p. 36). Ultimately people, a repository of knowledge and skills, are the most valuable and necessary asset for any firm to compete and generate competitive advantage (Barney & Wright, 1998; Gorman, Nelson, & Glassman, 2004; Lopez-Cabrales, Valle, & Herrero, 2006; Shee & Pathak, 2005; Wright, McMahan, & McWilliams, 1994). Strategically speaking, a firm may have a great strategic plan in place, yet it means nothing if its people lack access to appropriate and relevant knowledge, skills, and attitudes to successfully support or carry out the strategic plan. Since people are the core driver of successful strategy implementation, it is vital for those, especially top management and executive teams, who plan and formulate strategy to realize that having their employees armed with appropriate knowledge and skills is a key element for successful strategy implementation. Porter (2000) stresses that firms operating in the knowledge-based economy become more and more dependent on the skills and knowledge of their workers.

The problem of this study was to determine whether the integration of training in the firm's business strategies increases the impact of training on the firm's competitiveness. Training, as one of the human resource practices, has been qualitatively and quantitatively established in literature to have a positive impact on organizational performance and competitiveness; nonetheless, the extent to which training is genuinely perceived and valued to be strategically important by the firm's top management is still questionable. The current study sought to contribute to a greater understanding of the strategic integration of training and its

impact on the firm's competitiveness. Three research hypotheses were to be tested to address the problem of this study.

Hypothesis 1: Training has a positive impact on measures of the firm's competitiveness.

Training has traditionally been a conventional method utilized to prepare and arm both current and new employees with necessary and relevant knowledge and skills needed to perform day-to-day operational activities that ultimately determine organizational performance, success and competitiveness. Research in strategic human resource management, organizational performance, performance improvement, and organizational competitive advantage has conceptually and empirically linked training to organizational performance and sustained competitive advantage (Akhtar, Ding, & Ge, 2008; Arthur, 1994; Bartel, 1994; Cutcher-Gershenfeld, 1991; Gerhart & Milkovich, 1990; Huselid, 1995; Huselid & Becker, 1996; Ichiniowski, Shaw, & Prennushi, 1997; MacDuffie, 1995; Whitney, 2005; Sum, 2010a; Wright, Gardner & Moynihan, 2003).

Training and the Firm's 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% of corporate executives expressed that in order to gain a competitive advantage in today's changing markets, a flexible workforce was essential. 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% the Fortune 1000 firms indicated that a barrier to growth was a lack of trained employees. Moreover, many 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; MacDuffie, 1995; Mathews, 1990, 1994; Osterman, 1995; Piore & Sabel, 1984; Senge, 1990; Watkins & Marsick, 1992; Wilkinson, 1983) indicated that the factors that impacted management decisions to train employees were (a) employee performance improvement; (b) the improvement of the adaptability and flexibility of the employees; (c) investment in acquiring new technology; (d) new work practices and sophisticated human resource system; and (e) changes in business strategy. Using four case studies in Greek banks, Glaveli and Kufidu (2005) suggested that the role of training was to aim 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 (2002) reported that training was a means to prepare employees for future job assignments.

Training Impact on the Firm's Productivity and Efficiency

Blundell, Dearden, and Meghir (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 impacted productivity. The results showed that increasing an individual's educational level by 10% increased productivity by 8.6%; increasing an individual's work hours by 10% increased productivity by 6.0%; and increasing capital stock by 10 percent increased productivity by 3.2% (US Department of Education, 2003). Wright, Knight, and Speed (2001) 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 Pucel (1995) indicated that 10% increase in training spending per worker led to an increase of 1% in value-added per worker.

Other studies offered the evidence to some extent that improved productivity was generated by training (Booth, 1991; Brown 1990; Dockery & Norris 1996; Duncan & Hoffman,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) also provided evidence showing the impact of training on firms' productivity improvement. Moreover, Bartel (1994) found that the implementation of new employee training programs significantly increased 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 in firms' training program. Holzer, Block, Cheatham, & Knott, (1993) found that firms 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 included 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; Coopers & Lybrand 1994; Dockery, Koshy, Stromback, & Ying, 1997). In surveys conducted by the Centre for Labor Market Research in Australia, employers believed that training benefited the firms (Dandie, Dockery, Koshy, Norris, & Stromback, 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). In addition, Lowe (2005) discussed 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 (Edina, 2005).

The same research study showed that many of the leading sales organizations in today's arena were creating competitive advantage by equipping their sales people with business consulting skills. For instance, by learning a consultative process and identifying more appropriate ways to gain an understanding of the customer's business and 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 the Firm's 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 a high level of innovation provided training to 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, Dearden, Meghir, and Sianes (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, Gittlemanm, and Joyce (1998) found firms that had more innovative workplace practices had a tendency to offer more training. In addition, Dockery (2001) found that the proportion of employees receiving on-the-job training was positively associated with the firm's innovation. In a survey study, Sum (2010) reported the evidence of the impact of training on the firm's innovation.

Hypothesis 2: Training has to be integrated in the firm's business strategies.

Hypothesis 3: The integration of training in the firm's business strategies increases the impact of training on the firm's competitiveness.

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 deprived 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.

Strategic Integration of Training

The integration of training in the firm's business strategies is reported in several studies. For instance, Bartel (1994) 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 allowed 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, Fonda, & Hayes, 1992; Baker & Wooden 1995; Catts, 1996; Coopers & Lybrand 1994; Ichniowski, Shaw, & Prennushi, 1996).

McClelland (1994) suggested that human resource managers who were in charge of the design and implementation of the management development and training needed 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 mangers to develop a strategic plan that was demonstrably aligned with the company. Likewise, one of the many benefits from training as identified by management was 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); the researcher 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. 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 was one of the main strategic human resource practices implemented by those companies. Sum (2010b) found a statistically significant positive relationship between the strategic integration of training in the firm's business strategies and the extent to which training contributed to the firm's innovation, $r_s\ (97) = .566,\ p < .01$.

RESEARCH METHODS

Research Design

The design of the present study followed a non-experimental study using online survey method for data collection. The online survey method was utilized to collect necessary data to answer the questions posed in the present study because the online survey provided great convenience and efficiency in respect to data collection; it provided economies of scale to the investigator and saved time (Taylor, 2000; Yun & Trumbo, 2000).

Population and Sample Size

The target population identified in the present study was training professionals who interacted on the American Society for Training and Development (ASTD) discussion board located at http://community.astd.org and networked on Twitter, Facebook, and Linkedin. The training professionals were identified as those whose jobs were related to training including, but not limited to, trainers, training specialists, training managers, training administrators, training supervisors, training directors, and training consultants.

The present study utilized a convenience sample due to the fact that training professionals who interacted on the American Society for Training and Development (ASTD) discussion board located at http://community.astd.org and networked on Twitter, Facebook, and Linkedin were conveniently accessible and technologically savvy. As of September 15, 2009, the population parameter of training professionals who interacted on the ASTD discussion board located at http://community.astd.org and networked on Twitter, Facebook, and Linkedin was estimated at 6,450 (ASTD discussion board = 6,010; Twitter = 24; Facebook = 147; Linkedin = 269). To estimate a minimum sample size (n) of the population (N) of 6450 training professionals, $n = N / [1 + N*(e)^2]$ was calculated using a 95% confidence level and ± 5% confidence interval (e). Thus, the minimum sample size was calculated to be 376 ($n = 6450 / [1 + 6450*(0.05)^2] = 376$). To generate a higher response rate, a total number of 450 invitations soliciting participation in the survey were initiated on the ASTD discussion board located at http://community.astd.org, Twitter, Facebook, and Linkedin.

There were 111 responses in total. However, several responses contained some missing data. For instance, several responses contained missing data on some questionnaire items and had complete data on other items. Therefore, although several responses contained missing data, they were still included in the statistical analysis. The response rate was estimated at 24.66% -- total number of valid responses (111) divided by total number of invitations (450) multiplied by 100 -- [(111/450)*100 = 24.66%]. While the response rate of 23.77% was considered acceptable since the average estimate of response rate for online surveys is between 20% and 30% (Hamilton, 2003), the results were subject to non-response bias (due to lower

response rate). As a result, the comparison of the mean rating of each item of the first 20 responses and the latest 20 responses was performed using the independent samples *t*-test;

$$t = \frac{\bar{X}_1 - \bar{X}_2}{S_{X_1X_2} \cdot \sqrt{\frac{1}{n_1} + \frac{1}{n_2}}}$$

where $\overline{X}_1$ is mean rating of each item of the first 20 responses, and $\overline{X}_2$ is the mean rating of each item of the latest 20 responses. $S_{X_1X_2}$ is an estimator of the common standard deviation of the first and latest samples. In addition, n_1 is the number of valid responses of the first 20 responses, and n_2 is the number of valid responses of the latest 20 responses. The mean ratings of each item of the first 20 responses and latest 20 responses were not statistically different at .05 level. This implied that the first 20 responses and latest 20 responses were similar and did not show any systematic differences that might cause any major concerns or red flags.

Research Instrument

The online questionnaire was developed by the researcher. The questionnaire consisted of four sections. The first section asked respondents to provide demographic data. The second section asked respondents to provide general information related to their firms. The third section of the instrument asked respondents if they were aware of the integration of training in their firms' business strategies. If they answered "yes", then they were asked to rate (5=Very High, 4=High, 3=Moderate, 2=Low, and 1=Very Low) the extent to which training was integrated in the firm's strategies. The final section asked respondents to rate (5=Very High, 4=High, 3=Moderate, 2=Low, and 1=Very Low) their level of agreement of the extent to which training has an impact on measures of the firm's competitiveness; the N/A option was also provided.

Validity and Reliability of the Data Collection Instrument

The extensive review of literature, input from the panel of experts, and feedback from participants in the pilot study were sufficient in establishing the data collection instrument validity. Using data obtained from the pilot survey, the Cronbach's α (alpha) was calculated to determine the reliability of the data collection instrument. The formula below was used to estimate the Cronbach's α (alpha);

$$\alpha = \frac{N}{N-1}\left(1 - \frac{\sum_{i=1}^{N} \sigma_{Y_i}^2}{\sigma_X^2}\right)$$

where N is the number of the items, $\sigma_{Y_i}^2$ is the variance of the observed total rating scores, and is thσ_X^2ariance of item *i*. Based on data obtained from the official survey, the calculation of the Cronbach's α (alpha) for the third section and fourth section was estimated at .930 and .922 respectively; these values were much higher than the acceptable value of .700.

Data Collection Process

A total number of 450 invitations soliciting participation in the survey were initiated at about 3:45 PM CST on September 15, 2009, on the ASTD discussion board located at

http://community.astd.org, Twitter, Facebook, and Linkedin. Specifically, eight invitations were posted on the ASTD discussion board. Twenty-six invitations were posted on ASTD Chapters' Twitter pages, and 269 invitations were sent to training professionals on Linkedin. Finally, 147 invitations were sent to training professionals on Facebook.

A reminder was initiated at around 6:30 AM CST on September 22, 2009. The invitation was a short message electronically posted in the ASTD's online forum and ASTD chapters' and members' Twitter pages and sent to ASTD chapters and members on Facebook and Linkedin soliciting participation in the study.

Data Analysis

Data analysis took place immediately following the pre-specified date for data collection cut off point which was on September 25, 2009, at 5:30 PM CST. Any and all responses that had not been entered into the analysis system were entered, and the data were reviewed for accuracy and completeness. Random samples were pulled from the file of data collection instruments, and the corresponding entries were audited to insure proper data input. The complete computer tabulation of the data collection responses was performed using the Statistical Package for the Social Sciences (SPSS) 16.0. The data were analyzed using central tendency and ordinary least squares.

RESEARCH RESULTS

Participants' Characteristics

A total of 111 responses were received (only 107 responses were usable); 48 (43.2%) and 63 (56.8%) were male and female, respectively. The largest age groups were 41-50 (34 or 30.6%) and 51-60 (30 or 27%) years old. In addition, 49 (44.1%) of the participants identified themselves as national members, and 48 of the participants were members of the ASTD's local chapters in 20 different U.S. states. Twenty-eight (25.2%) of the participants were training managers; 19 (17.1%) were training consultants; 17 (15.3%) were training directors; 16 (14.4%) were training specialists; 12 (10.8) were trainers; 8 (7.2%) were human resource managers; 5 (4.5%) were instructional design managers; and 6 (5.4%) were business owners. Forty-five (40.5%) of the participants indicated that they had worked for their current firms for more than 5 years. Finally, 56 (50.5%) of the participants held Master's degrees; 13 (11.79%) held doctoral degrees.

Characteristics of Participants' Firms

The participants' firms were grouped into three industries – service, retailing, and manufacturing. Seventy-four (66.7%) firms were service providers; 25 (22.5) were manufacturers; and 10 (9%) were retailers. The firms were categorized into three groups: small (100 or less employees), medium (101-1000 employees), and large (1001 or more employees). A large number of participants were employed in large-size firms (61 or 55%), 26 (23.4%) were employed in small-size firms, and 20 (18%) were employed in medium-size firms. Finally, 58 (52.3%) participants' firms were engaged in global operations.

Hypothesis 1: Training Has a Positive Impact on Measures of the Firm's Competitiveness

Table 1 (Appendix) shows the participants' rating of the impact of training on each measure of their firms' competitiveness. Forty-three (38.7%) of the participants indicated that training had a very higher impact on their firms' readiness for current and future business opportunities and threats, and 42 (37.8%) participants reported a very high impact of training on their firms' productivity. Thirty-four (34.3%) of the participants perceived that training had a very high impact to their firms' efficiency. Only 6 (5.4%) of the participants perceived that training had a very low impact on their firms differentiation in the marketplace. Likewise, 11 (9.9%) of the participants perceptually judged that training had a low contribution to the improvement of the design and development of their firms' new products/services. Nine (8.1%) of the participants identified that training had a very low contribution to the effective introduction of their firm's new products/services to the market.

Moreover, 7 (6.3%) of the participants determined that training had a very low contribution to the effective introduction of new business processes in their firms; 32 (28.8%) participants indicated that training highly contributed to the improvement of their firms' current products/services. Based on their rating, 35 (31.5%) participants expressed that training contributed very highly to the improvement of current business processes in their firms. The participants' mean ratings of the impact of training on measures of their firms' were 3.68 (readiness for new opportunities and threats), 3.85 (productivity), 3.71 (efficiency), 3.18 (differentiation), 2.66 (new product/service design), 2.87 (introduction of new product/service to the market), 3.30 (introduction of new business processes), 3.45 (current product/service improvement), and 3.34 (current business process improvement).

Hypothesis 2: Training Has to be Integrated in the Firm's Business Strategies

As exhibited in Table 2 (Appendix), 28 (25.2%) of the 111 participants indicated that training was integrated in their firms' differentiation strategy, and 26 (23.4 %) of all the participants believed that training was moderately integrated in their firms' cost leadership strategy. Only Seven (6.3%) of the participants indicated that a low integration of training in the firms' focus strategy. Likewise, 6 (5.4%) of the participants reported a low integration of training in their firms' market penetration strategy. Furthermore, 26 (23.4%) participants reported very high integration of training in their firms' produce/service development. In addition, 20 (18%) participants moderately rated the integration of training in their firms' market development strategy. Nineteen (17.1%) of the participants reported that the integration of training in their firms' diversification was low. Based on the highest rating of 5, the mean ratings of the integration of training in their firms' business strategies were 3.59 (differentiation), 3.24 (cost leadership), 3.53 (focus), 3.45 (market penetration), 3.46 (product/service development), 3.25 (market development), and 2.86 (diversification).

Hypothesis 3: The Integration of Training in the Firm's Business Strategies Increases the Impact of Training on the Firm's Competitiveness

In order to run the OLS regression, the original data needed to be transformed. First of all, the mean rating of each participant's rating of the extent to which training was integrated in all of the seven strategies was calculated. This set of mean ratings now became *the integration of*

training in the firm's business strategies – the independent variable. Furthermore, the mean rating of each participant's rating of the impact of training on all measures of the firm's competitiveness was computed. This set of mean ratings now became *the impact of training on the firm's competitiveness* – the dependent variable. As shown in Table 3 (Appendix), *a regression analysis reveals a statistically significant positive regression coefficient,* $b = .554$, $t(97) = 6.25$, $p < .001$.

CONCLUSION AND RECOMMENDATIONS FOR PRACTICE, AND DIRECTIONS FOR FUTURE RESEARCH

The current study sought to contribute to a greater understanding of the strategic integration of training and its impact on the firm's competitiveness. This paper, using the resource-based view of the firm as the theoretical background, is to determine whether the integration of training in the firm's business strategies increases the impact of training on the firm's competitiveness. A regression analysis of the data obtained from a survey of training professionals employed in small, medium, and large firms across three different industries reveals a statistically significant positive regression coefficient, $b = .554$, $t(97) = 6.25$, $p < .001$.

Training professionals need to improve their awareness of and involvement in the integration of training in various business strategies if they want to increase their strategic visibility, importance, and credibility in their firms. Top management and executives need to genuinely realize the strategic importance of the training function and training professionals as a value-added source for sustained competitive advantage by increasing the level of training professionals' involvement in the business strategies and having a structure that clearly aligns training activities with corporate objectives and goals.

Executives and top management teams need to integrate training and involve training professionals in every business strategy.

For future research, this study can be replicated using a sample drawn from a different population. For example, a sample of CEOs can be drawn to study their perception of the impact of training and its integration in the firm's business strategies on the firm's competitiveness. Another direction for future research is to examine the moderating and/or mediating effects of the integration of training in the firm's business strategies on the measures of the firm's innovation using quantitative data and more advanced statistical procedures. A study can be designed to compare financial measures of the firm's performance in respect to the level of integration of training in the firm's business strategies. Finally, it may be interesting to compare the perceived impact of training and its integration of the firm's business strategies on the firm's competitiveness among publicly traded and private firms.

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Table 1

Participants' Rating of the Impact of Training on Measures of Their Firms' Competitiveness

Measures of Competitiveness	5 (Very High)		4 (High)		3 (Moderate)		2 (Low)		1 (Very Low)		N/A		No Response		Total		Mean (n)
	N	%	n	%	n	%	N	%	n	%	n	%	n	%	n	%	
FC1	43	38.7	21	18.9	26	23.4	08	07.2	4	03.6	06	05.4	03	02.7	111	100	3.68 (108)
FC2	42	37.8	33	29.7	18	16.2	06	05.4	4	03.6	04	03.6	04	03.6	111	100	3.85 (107)
FC3	37	33.3	33	29.7	22	19.8	07	06.3	4	03.6	05	04.5	03	02.7	111	100	3.71 (108)
FC4	34	30.6	22	19.8	17	15.3	14	12.6	6	05.4	15	13.5	03	02.7	111	100	3.18 (107)
FC5a	25	22.5	16	14.4	19	17.1	11	09.9	17	15.3	19	17.1	04	03.6	111	100	2.66 (107)
FC5b	31	27.9	19	17.1	16	14.4	09	08.1	10	09.0	22	19.8	04	03.6	111	100	2.87 (107)
FC5c	34	30.6	22	19.8	24	21.6	08	07.2	7	06.3	12	10.8	04	03.6	111	100	3.30 (107)
FC5d	31	27.9	32	28.8	24	21.6	03	02.7	8	07.2	09	08.1	04	03.6	111	100	3.45 (107)
FC5e	35	31.5	20	18.0	26	23.4	09	08.1	6	05.4	11	09.9	04	03.6	111	100	3.34 (107)
Crombach's α (alpha)						.922											

Note:

FC1 = Readiness for New Opportunities and Threats
FC2 = Productivity
FC3 = Efficiency
FC4 = Differentiation
FC5a = New Product/Service Design
FC5b = Introduction of New Product/Service to the Market
FC5c = Introduction of New Business Processes
FC5d = Current Product/Service Improvement
FC5e = Current Business Process Improvement
N/A = No Answer (No Impact)

Table 2

Participants' Rating of the Extent to which Training Is Integrated in Their Firms' Business Strategies

Strategies	5 (Very High)		4 (High)		3 (Moderate)		2 (Low)		1 (Very Low)		No Response		Total		Mean (n)
	n	%	n	%	n	%	N	%	n	%	n	%	n	%	
Differentiation	28	25.2	23	20.7	23	20.7	11	09.9	07	06.3	19	17.1	111	100	3.59 (92)
Cost Leadership	18	16.2	17	15.3	26	23.4	13	11.7	10	09.0	27	24.3	111	100	3.24 (84)
Focus	23	20.7	18	16.2	23	20.7	08	07.2	07	06.3	32	28.8	111	100	3.53 (79)
Market Penetration	19	17.1	16	14.4	22	19.8	06	05.4	08	07.2	40	36.0	111	100	3.45 (71)
Product/Service Development	26	23.4	15	13.5	14	12.6	17	15.3	07	06.3	32	28.3	111	100	3.46 (79)
Market Development	16	14.4	12	10.8	20	18.0	13	11.7	07	06.3	43	38.7	111	100	3.25 (68)
Diversification	14	12.6	09	08.1	17	15.3	19	17.1	14	12.6	38	34.2	111	100	2.86 (73)
Crombach's α (alpha)						.930									

Table 3

Regression Results Obtained from Regressing the Impact of Training on the Firm's Competitiveness on the Integration of Training in the Firm's Business Strategies

Independent Variable	Beta	*t*
Constant	1.718	5.703***
Integration of Training in the Firm's Business Strategies	.554	6.249***
R^2		.289
Adjusted R^2		.282
F-Statistic		39.047

$N = 97$

*** Significant at the .001 level