Abstract

Purpose – The purpose of this study is to investigate the relationship between perceived employee training effectiveness and job satisfaction, motivation and commitment.

Design/methodology/approach – The study examined the responses of 134 employees and lower managers, of five large Greek organizations, after they had completed a training program. The questions asked contained information about the employee attitudes towards the training received, as well as their attitudes towards their employers.

Findings – The results of the study provide support to the hypotheses proposed, indicating that there is a significant correlation between the employee perceived training effectiveness and their commitment, job satisfaction and motivation. Additionally, high correlations were found between the latter three variables.

Research limitations/implications – The study is limited to examining employee feelings, not taking into account their personal characteristics, which may be important.

Practical implications – The implications of the findings of this study for managers and especially for Human Resource professionals are quite significant, given their roles in funding, designing and delivering training interventions. Not only does it appear to be important, offering training programs to one’s employees but, the training program content must be perceived as effective and of value to those participating in it. This will have a positive effect, according to the findings of this study, on key employee attitudes, which appear to be related to a greater or a lesser extent, in the pertinent literature, to organizational performance outcomes including, productivity, turnover and absenteeism.

Originality/value – The study is ground-breaking, given that there are no prior studies examining the relationship between the variables considered in the present one.

Keywords Workplace training, Employee attitudes, Motivation (psychology), Job satisfaction, Greece

Paper type Research paper

Introduction

A recent survey of business executives, conducted by McKinsey and Co., asking them to name the factor contributing the most to the increasing competitive intensity in the global markets, identified the improved capabilities of the competitors, in terms of knowledge and talent. More low-cost competitors and more competition were the second and third factors mentioned (The McKinsey Quarterly, 2006). The fast pace of
environmental changes in the Global Market makes managers increasingly aware of the importance of a high-calibre workforce in an organization's effort to attain its goals. Human resource practices tend to be considered by some authors as “hygiene” factors (Herzberg, 2003), or as staff maintenance issues, as opposed to others proposing that, human resources may be the leading source of competitive advantage (Becker and Gerhard, 1996; Davenport, 2006; Peters and Waterman, 1982).

Business publications, such as *Fortune*, devote annually special issues with the “best places to work”, grading the performance of large corporations in terms of the satisfaction of their employees (*Fortune*, 2006). Although the relevant literature offers a lot of insight into the relationship between HR practices and job satisfaction, as well as the relationship of job satisfaction with performance (Bowling, 2007), there are hardly any studies addressing specifically the relationship between training effectiveness and job satisfaction, motivation and employee commitment.

Motivation, also, is a subject heavily researched, in the organizational behavior literature, rich in perspectives, theories and models. Growth and development of the employees is one point on which most of these perspectives converge. From Maslow, to Alderfer, to McClelland, to Herzberg and to Hackman, growth is proposed to be one of the most potent motivators, with high employee effort maximization potential. The majority of theorists in the area of motivation argue that, there is an irrefutable link between motivation and job satisfaction and motivation with employee commitment to the organization (Basset-Jones and Lloyd, 2005; Chen *et al.*, 2004; Lok and Crawford, 2004; Pool and Pool, 2007). Sirota *et al.* (2005), in a major study of motivation and job satisfaction, involving 135,000 respondents from various countries and groupings, found that organizations employing motivation schemes, that include three major constructs, i.e. equity, camaraderie and achievement, simultaneously, tend to be far more effective than those organizations that do not, or have twice as many “enthusiastic” employees (45 percent of the total) as those, which employ only two of the above constructs. Jeffrey Pfeffer (1998), also, presents two studies, demonstrating the link between commitment and organizational performance. Specifically, he found that the use of commitment-oriented management practices, helped reduce the time required for the production of one ton of steel by 34 percent and improved the scrap rate by 63 percent. In another study of 200 banks, he found that differences in such practices were associated with a 30 percent difference in financial performance (Pfeffer, 1998, pp. 31-56).

Training practices used by organizations may have an effect, direct or indirect on both employee motivation and organizational commitment (Meyer and Allen, 1991). Organizational commitment is defined, in the words of Pool and Pool (2007, p. 353) as “... the relative strength of an individual’s identification and involvement in a particular organization”. In order to equip their employees with the skills necessary to do their job, companies train them, in an effort to optimize their workforce’s potential. Some companies, planning for the long-term, invest in the development of new skills by their employees, so as to enable them to handle issues not currently present, but likely to come up in the future. This kind of training can lead to high levels of motivation and commitment by the employees, who actually see the opportunity they are given. These employees’ appreciation for the investment their organization is making in them, is shown in their hard work and their contentment in being a member of that organization. Training, then, is expected to have a positive impact on both motivation and employee commitment.
In spite of the large number of studies on the relationship between training and organizational outcomes, there appears to be a gap, concerning the study of employee perceived training effectiveness and its relationship to employee attitudes. The purpose of this study is to close this gap in the relevant literature, shedding more light into the relationship of perceived training effectiveness, with job satisfaction, motivation and commitment, based on empirical research, conducted in five large Greek companies.

Training and job satisfaction
In an era of continuous change and increased environmental uncertainty and complexity, both management and employees understand their limited capacity to deal with future demands made on them. Studies show the emergence of two trends, increasingly troubling corporate management, the increasing age of the workforce and the fast-paced evolution of new technologies (Tai, 2006). According to Tai, researchers converge in their suggestions to businesses, that they increase their training budgets, in order to remain competitive and maintain an adaptable and flexible workforce.

Training is defined in this study “as the planned intervention that is designed to enhance the determinants of individual job performance” (Chiaburu and Tekleab, 2005, p. 29). Training is related to the skills deemed necessary by the management of an organization, that must be acquired by the members of that organization, in order to improve the probability of achievement of its goals. Training offered to employees, may help them reduce their anxiety or frustration, brought on by work demands, that they are not familiar with, and they are lacking the skills to handle effectively (Chen et al., 2004). Employees feeling less than competent to do a task, are more likely to leave the field (Chen et al., 2004), or if they choose to stay, their productivity would be suboptimal (Kanelopoulos and Akrivos, 2006). The larger the gap between the skills required and those possessed by the employees, the greater the lack of job satisfaction of the employees and the turnover intentions. Although there has been no direct link in the literature between training and job satisfaction, Rowden (2002) and Rowden and Conine (2005), propose that training may be used as a tool to increase job satisfaction. Rowden and Conine (2005), argues that trained employees will better satisfy the needs of their customers. Tsai et al. (2007), found that employees committed to learning showed a higher level of job satisfaction with a positive effect on their performance. Job satisfaction has been defined as “pleasurable or positive emotional state resulting from an appraisal of one’s job or job experiences” (Locke, 1976, p. 1300). Following Rowden’s thinking it would be safe to assume that, employees that perceive their training beneficial will be more satisfied than those who get no training or training of no value. The above lead to the hypothesis that:

H1. There is a positive relationship between employee perceived training effectiveness and job satisfaction.

Training and organizational performance
Up to this point, it is evident that there is a strong linkage between HRM practices and organizational performance. To isolate and test the impact of a sole human resource practice and its implications on organizational performance is not an easy task to deal with, since there is little evidence in the field (Purcell et al., 2003). In line with Guest (1997) who recognized that training and development, as a unique practice, affects the quality of the HR outcome of skills and ability, but behavioural and attitudinal change and thus higher performance will be achieved by the contribution of the
The empirical relationship between training as a sole human resource practice and organizational performance, however intuitively compelling, is still considered weak since a relatively small number of surveys have been conducted to test it.

However, in theory, according to Harrison (2000), learning (triggered by training) is a variable that may have a positive effect on organizational performance and is considered to be a key element to the attainment of organizational goals. Nevertheless, adopting a training activity as a solution to lagging performance presupposes that this performance problem, i.e. this gap between the desired and the actual performance, is due to lack of training. This is illustrated better in Figure 1 stated by Swart et al. (2005).

The organization management ought to adopt training interventions to bridge this gap. Bridging the performance gap involves adopting a particular training intervention aiming at changing specific skills and attitudes of the employees. This becomes clearer by examining Bramley’s individual model of training (Figure 2).

The underlying logic of the individual model of training dictates that the organization should recognize that its employees are not effective and a change should be attempted in their knowledge, attitudes and skills. This shortfall in the individual performance may occur for various reasons. For instance, employees may not feel motivated anymore to apply their skills, they may be afraid in doing so, or they may believe that there may be a conflict of interest with the organization, when a change is about to take place.

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**Figure 1.**
The effectiveness behaviour gap

![Figure 1](image1)

**Source:** Swart et al. (2005, p.190)

**Figure 2.**
Bramley’s individual model of training

![Figure 2](image2)

**Source:** Swart et al. (2005, p.192)
above factors should be taken into account by the organization in order for it to adopt the most suitable training intervention, which will fulfil specific needs, enhance employee willingness to participate and meet their expectations. According to Swart et al. (2005) an individual improvement will be contingent on the quality of the training program, the motivation of the individual and the individual’s needs.

The model in general assumes that employee knowledge, skills and attitudes will change by the adoption of a training program, but this does not always end in that way. If the employee believes, there is an improvement in his knowledge and skills, it may be safe to also assume that, there will be an increase in the person’s individual performance. Through training the person’s competencies will be reinforced and will enable him or her to execute the tasks assigned effectively and efficiently. As a result, according to the model, there will be an increase in the overall performance of the organization.

Nevertheless, individual job performance is also influenced by the organizational culture and structure, by the job design, the reward systems used to motivate employees and the power and politics that exist in the organization and the group processes. Individuals may not achieve their goals and thus not perform well, due to problems associated with the reasons above and not necessarily due to lack of skills. Wright and Geroy (2001), argued that in order for training to be effective, certain issues must be taken into account. Management style may need to change and training also, has to fit with the culture of the organization. Some companies may offer training programs that, the organization itself is not prepared to accept the ensuing changes. Besides, Eisenberger et al. (1986) proposed that employees are more likely to become committed to an organization, if they believe that the organization is committed to them and management should make efforts to create a positive work environment. Managers, also have the responsibility, to ascertain which factors inhibit effectiveness and make the appropriate decisions, to ameliorate the situation (Swart et al., 2005).

Although in theory training seems to increase organizational performance, in actuality the evidence for such a claim is scant. Bartel (1994), in a survey conducted in the manufacturing sector, found that there is a positive relationship between implementing formal employee training programs and labor productivity, both at individual and organizational level. In addition, Ahmad and Bakar (2003), in their effort to test the relationship between implementing training and organizational commitment, came across various findings concerning all three aspects of commitment, affective, normative and continuance. They did not receive support for their hypothesis, which was stating that training has an impact on commitment but they found that various dimensions of training are related with all three aspects of commitment, which is consistent to a large extent with the findings of Kim (2006).

In general, it can be argued that the effect of training on employee outcomes (motivation, job satisfaction and commitment) has not received as much attention as it deserves. Few studies have been carried out that test the possibility that firms can affect their employees’ attitudes by implementing training interventions. Lang (1992) argued that training should be designed to achieve increased organizational commitment. Another survey, conducted by Gaertner and Nollen (1989) in manufacturing firms, revealed that employees’ commitment was associated with the actual and perceived HRM practices. These practices were internal promotion, employment security and training opportunities.
In addition, Meyer and Smith (2000), examining the relationship between Human Resource Management practices and organizational commitment, found that although the HRM practices are very valuable means in order to obtain employee commitment, their effects are not direct. In particular, they found that career development, employee evaluation of appraisal practices, and assessment of the benefits offered by the organization have an effect on both affective and normative commitment, while training was found not to contribute to the increase in employee commitment. Another finding of great importance, reported in this survey is that, the way HR practices are related to commitment may be indirect, mediated by two other variables, the organizational support and the procedural justice. The discussion thus far leads to the following two hypotheses:

H2. There is a positive relationship between employee perceived training effectiveness and motivation.

H3. There is a positive relationship between employee perceived training effectiveness and employee commitment.

In spite of the assertions made above, concerning the benefits of training and its positive effects on employee outcomes, there is a whole body of literature, debating the overall benefit organizations obtain from training their people, in an era of intense employee mobility. Cheramie et al. (2007), present evidence that, executives who change jobs frequently, are more likely to earn higher salaries and climb higher in organizational ranks. This makes employers more likely to be hesitant, or even to avoid investing in the development of their employees, when faced with circumstances where people use their training to increase their own market value and employment opportunities, at their company’s expense. The trend of increasing individualism, at least in the developed economies, is adding legitimacy to the claims of the boundaryless career proponents (Baruch, 2006). More and more, people tend to try to self-manage their careers, rather than leave it to the hands of their employer. This creates a transactional relationship between employers and employees, making the psychological contract practically void (Baruch, 2006). However, in countries where individualism is low or rather low, such as Greece (Hofstede, 1994), the psychological contract is relatively strong, in a large part of the economy and people, by and large, still have the notion of getting a job that will last, at least for as long as they want it to. Given the relatively stable economic and socio-political environment in Greece, as well as the high level of uncertainty avoidance (the highest among 53 countries in Hofstede (1994, p. 129) the propensity of employees to change jobs voluntarily is rather small. Additionally, as discussed in the following section, the sample in this study comes from first line supervisors and clerical personnel, which as distinct organizational levels, do not employ people particularly prone to change jobs, due to factors relating to age, education, industry and socio-economic status, at least compared to those from higher organizational strata. In conclusion, at least within the scope of this study, training and its perceived effectiveness are expected to relate to the variables discussed above, in the way stated in the hypotheses.

Methodology

The sample
The people comprising the sample of this study were 134 males and females (63 and 71 respectively), attending a training seminar. The participants were employees and first-line supervisors, working for five large Greek organizations (employing over 1,000
people each) representing five sectors of the industry. The participants were given a four-part questionnaire to fill out, upon the completion of the seminar they attended. The companies, which the sample originated from, were selected on the basis of their outstanding financial performance over the past five years. The approach chosen, was similar to that of Purcell et al. (2003) and Hutchinson and Purcell (2003), who examined the link between human resource management and organizational performance, in the UK. Although a convenience sample, similarly to that of the authors in the UK study, the sample was large enough to allow for analyses that require an approximately normal distribution of the data used.

The variables
Perceived training effectiveness (PTE) was measured using a one-item scale “how effective is the training you receive at your company?” On a scale from 1 (not effective at all) to 5 (very effective), the employees were asked to describe their feelings about the effectiveness of the training they receive from their employer. The use of one-item measures has been traditionally avoided in the literature, with psychologists showing a clear preference to more complex constructs (Loo, 2002; Oshageni, 1999). Recently however, many researchers have shown that single-item measures, can be as effective as the multiple-item ones, especially when measuring concepts such as job satisfaction (Gorsuch and McFarland, 1972; Wanous et al., 1997), customer satisfaction (Hurley and Estelami, 2007), “perceived amount of participation in decision making” (Loo, 2002), teaching effectiveness (Wanous and Hudy, 2001). Wanous et al. (1997), in a meta-analysis of 17 studies, examining job satisfaction measures, found a correlation of 0.70 between the findings of multiple-item and single-item measures, suggesting that the latter measures may effectively substitute the multiple-item complex constructs.

On the other hand, Loo (2002, p. 71), proposes that, single-item measures ought to be used only when they reflect homogeneous constructs and still multiple-item constructs would be more reliable. The author claims that managers would prefer to make decisions based on data produced by complex constructs rather than simple ones. Oshageni (1999), also reports that single-item measures in his study, overestimated the percentage of people satisfied with their job, while they underestimated the percentage of the dissatisfied ones.

Single-item measures offer significant advantages to the researcher, over the multiple-item ones. They are parsimonious, their validity and reliability are high, when examining global concepts, such as satisfaction, they are easily administered and make it easier for the subjects to respond (Patrician, 2004).

Employee motivation was measured through a 12-item five-point scale, based on Alderfer’s (1972) work, with responses ranging from 1 (not important) to 5 (extremely important) (see also Schneider and Alderfer, 1973). The reliability was calculated at: $a = 0.89$.

The employee commitment measure, was based on Mowday and Steers (1979) work, using a 15-item Likert scale, ranging from 1 (strongly disagree) to 7 (strongly agree). The instrument reliability was at 0.78.

Job satisfaction has been measured in a variety of ways in the extant literature. Researchers have used single-item measures as well as few-item or multiple-item ones, such as the Minnesota Satisfaction Questionnaire, or an 87-item instrument used by Tsai et al. (2007), trying to capture various dimensions of job satisfaction. In this study the concept was measured through Rokeach’s (1973), instrument in his work on human
values. A 20-item questionnaire was used based on the previous author’s work, assessing the attitudes of the participants on a scale from 1 (very dissatisfied) to 5 (very satisfied). Chronbach’s alpha was calculated at 0.86.

Results
The data were coded and processed through the use of the Minitab computer program. The hypotheses proposed above were tested with the use of Spearman Correlation. The results are succinctly presented in the Table I. The correlation coefficient between PTE and motivation was $r = 0.35$ ($p < 0.01$). An even stronger correlation appears to exist between PTE and job satisfaction where $r = 0.48$ ($p < 0.01$). Also positive, but considerably weaker, was the relationship between PTE and Employee Commitment, $r = 0.28$ ($p = 0.0142$). Thus, the data support all three hypotheses proposed, showing strong significant relationships between training effectiveness and job satisfaction, employee commitment and motivation. In addition to the previously discussed relationships, outside the scope of this paper, strong correlations were found among job satisfaction, motivation and commitment (Figure 3).

The strong relationships between motivation, commitment and job satisfaction, are not surprising, considering that a plethora of studies has come to similar conclusions (Tsai et al., 2007; Pool and Pool, 2007; Sirota et al., 2005).

<table>
<thead>
<tr>
<th>Correlation</th>
<th>$R_{\text{Spearman}}$</th>
<th>$Z_{\text{critical value}}$</th>
<th>$Z_{0.005}$</th>
<th>$P_{\text{value}}$</th>
</tr>
</thead>
<tbody>
<tr>
<td>PTE; Mo</td>
<td>0.3479</td>
<td>3.9867</td>
<td>2.58</td>
<td>$6 \times 10^{-5}$</td>
</tr>
<tr>
<td>PTE; JS</td>
<td>0.4839</td>
<td>5.41</td>
<td>2.58</td>
<td>$1.9 \times 10^{-8}$</td>
</tr>
<tr>
<td>PTE; Co</td>
<td>0.28</td>
<td>2.45</td>
<td>2.58</td>
<td>0.0142</td>
</tr>
<tr>
<td>Co; Mo</td>
<td>0.775</td>
<td>6.77</td>
<td>2.58</td>
<td>$\approx 0$</td>
</tr>
<tr>
<td>Mo; JS</td>
<td>0.607</td>
<td>5.306</td>
<td>2.58</td>
<td>$\approx 0$</td>
</tr>
<tr>
<td>Co; JS</td>
<td>0.43</td>
<td>3.77</td>
<td>2.58</td>
<td>0.0002</td>
</tr>
</tbody>
</table>

Table I. Correlation matrix

![Correlation Coefficient Diagram](image)

Figure 3.
Correlation between motivation, commitment, job satisfaction and employee perceived training effectiveness.
No substantial differences were found between men and women, in terms of the relationships between the variables examined (Tables II and III). The results of the analysis after the sample age was split three-way, point, again to the same direction as the overall sample (Table IV).

Based on Table I we note the following:

(1) There is evidence of a strong relationship between the variables motivation (Mo) and commitment (Co). Therefore, a collinearity appears to occur between the two variables. Statistically, it can be measured using the first order correlation coefficient. Conceptually, we have defined:

\[ R_{12.3} = \text{correlation coefficient between PTE and Mo, holding Co constant} = 0.25. \]
\[ R_{13.2} = \text{correlation coefficient between PTE and Co, holding Mo constant} = 0.10. \]
\[ R_{23.1} = \text{correlation coefficient between Co and Mo, holding PTE constant} = 0.85. \]

and we conclude that there is collinearity between Co and Mo (Figure 4).

(2) The consequences of the detected collinearity as far as our analysis is concerned might be:

<table>
<thead>
<tr>
<th>Correlation</th>
<th>( R )-Spearman</th>
<th>( Z )-critical value</th>
<th>( Z_{0.005} )</th>
<th>( P )-value</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>PTE; Mo</td>
<td>0.31</td>
<td>3.1373</td>
<td>2.58</td>
<td>( \approx 0 )</td>
<td>Strong correlation</td>
</tr>
<tr>
<td>PTE; JS</td>
<td>0.43</td>
<td>3.9265</td>
<td>2.58</td>
<td>( \approx 0 )</td>
<td>Very strong correlation</td>
</tr>
<tr>
<td>PTE; Co</td>
<td>0.22</td>
<td>2.35</td>
<td>2.58</td>
<td>( \approx 0.02 )</td>
<td>Weak correlation</td>
</tr>
</tbody>
</table>

\[ \text{Table II.} \] Correlation matrix for males

<table>
<thead>
<tr>
<th>Correlation</th>
<th>( R )-Spearman</th>
<th>( Z )-critical value</th>
<th>( Z_{0.005} )</th>
<th>( P )-value</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>PTE; Mo</td>
<td>0.38</td>
<td>3.9265</td>
<td>2.58</td>
<td>( \approx 0 )</td>
<td>Very strong correlation</td>
</tr>
<tr>
<td>PTE; JS</td>
<td>0.55</td>
<td>5.5049</td>
<td>2.58</td>
<td>( \approx 0 )</td>
<td>Extremely strong correlation</td>
</tr>
<tr>
<td>PTE; Co</td>
<td>0.32</td>
<td>3.1373</td>
<td>2.58</td>
<td>( \approx 0 )</td>
<td>Strong correlation</td>
</tr>
</tbody>
</table>

\[ \text{Table III.} \] Correlation matrix for females

<table>
<thead>
<tr>
<th>Age bracket</th>
<th>Correlation variables</th>
<th>( R )-Spearman</th>
<th>( Z )-critical value</th>
<th>( Z_{0.005} )</th>
<th>( P )-value</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt;35</td>
<td>PTE;Mo</td>
<td>0.42</td>
<td>4.084</td>
<td>2.58</td>
<td>( \approx 0 )</td>
<td>Very strong correlation</td>
</tr>
<tr>
<td></td>
<td>PTE;JS</td>
<td>0.48</td>
<td>4.56</td>
<td>2.58</td>
<td>( \approx 0 )</td>
<td>Extremely strong correlation</td>
</tr>
<tr>
<td></td>
<td>PTE;Co</td>
<td>0.21</td>
<td>2.43</td>
<td>2.58</td>
<td>( \approx 0.02 )</td>
<td>Weak correlation</td>
</tr>
<tr>
<td>35-44</td>
<td>PTE;Mo</td>
<td>0.28</td>
<td>2.98</td>
<td>2.58</td>
<td>( \approx 0.003 )</td>
<td>Correlation exist</td>
</tr>
<tr>
<td></td>
<td>PTE;JS</td>
<td>0.37</td>
<td>3.69</td>
<td>2.58</td>
<td>( \approx 0 )</td>
<td>Strong correlation</td>
</tr>
<tr>
<td></td>
<td>PTE;Co</td>
<td>0.28</td>
<td>2.98</td>
<td>2.58</td>
<td>( \approx 0.02 )</td>
<td>Correlation exist</td>
</tr>
<tr>
<td>&gt;45</td>
<td>PTE;Mo</td>
<td>0.40</td>
<td>3.9265</td>
<td>2.58</td>
<td>( \approx 0 )</td>
<td>Strong correlation</td>
</tr>
<tr>
<td></td>
<td>PTE;JS</td>
<td>0.55</td>
<td>5.11</td>
<td>2.58</td>
<td>( \approx 0 )</td>
<td>Extremely strong correlation</td>
</tr>
<tr>
<td></td>
<td>PTE;Co</td>
<td>0.32</td>
<td>3.29</td>
<td>2.58</td>
<td>( \approx 0 )</td>
<td>Strong correlation</td>
</tr>
</tbody>
</table>

\[ \text{Table IV.} \] Correlation matrix per age bracket
• a relatively increased standard error of estimates affecting the reliability of measurements; and
• the $z$-tests suggest that none of the three variables (Mo; Co; JS) are significantly associated to PTE, while the $F$-tests indicate that the model is useful for explaining PTE.

We decided, in order to eliminate the consequences of collinearity, to follow the method of stepwise forward correlation. The decision to add or drop a variable, is made on the basis of the contribution of that variable to the ESS (explained sum of squares) as judged by the $F$-test.

As shown in Table V, the variables found to be related to PTE were mainly JS and Mo.

The model accounted for approximately 40 percent of the variance in average PTE ($p = 0.021$, $R^2 = 0.43$). The model used the ordinary method of entering variables into the regression model. Durbin-Watson’s residuals index, 1.82 and ANOVA test ($F = 5.5, \text{Sign.} = 0.021$) indicate that the regression model is useful. The beta values suggest that the relative influence of job satisfaction (JS) was bigger on the PTE than that of motivation (Mo) and commitment (Co).

**Discussion and implications of the study**

The role of employee perceived training effectiveness (PTE) becomes clearer and its relationship to employee motivation, commitment and job satisfaction, is rather lucid, looking at the results of this study. As expected, following the analysis of the literature review section, PTE correlates with job satisfaction, lending support to the findings of Tsai et al. (2007). High quality training according to Tai (2006) will lead to higher job satisfaction, which in turn will have a beneficial effect on organizational performance. Bartel (1994) and Harrison (2000), have also found that training directly or indirectly has a

<table>
<thead>
<tr>
<th>Dependent variable</th>
<th>Independent variables</th>
<th>Beta coefficients</th>
<th>$P$-value</th>
<th>$R^2$</th>
<th>Durbin-Watson</th>
<th>Anova $P$-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>PTE</td>
<td>JS</td>
<td>0.48</td>
<td>0.017</td>
<td>0.43</td>
<td>dl = 1.61</td>
<td>0.021</td>
</tr>
<tr>
<td></td>
<td>Mo</td>
<td>0.40</td>
<td>0.042</td>
<td></td>
<td>du = 1.74</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Co</td>
<td>0.20</td>
<td>0.015</td>
<td></td>
<td>d = 1.82</td>
<td></td>
</tr>
</tbody>
</table>
positive effect on productivity. Sirotta et al. (2005), propose that motivation relates directly to the need for achievement, which is fulfilled through career growth, resulting from training and learning. Their findings are in agreement with Pool & Pool (2007), who reported a significant correlation between motivation commitment and job satisfaction with the learning oriented organization. Our findings are in the same direction as those of the above two studies. Several studies indicated that there is a direct or indirect link between training and employee commitment. Gaertner and Nollen (1989) found that training opportunities increased employee commitment in an industrial setting. Meyer and Smith (2000), also reported a positive relationship between HR practices (including training) and commitment. On the other hand, Kim (2006) and Ahmad and Bakar (2003) reported mixed results, in terms of the effect of training on performance. The results in this study support Gaertner and Nollen (1989) and Meyer and Smith’s (2000) findings. Given the effectiveness of training, a significant relationship with commitment is expected.

Implications

Implications for researchers. An attempt was made in this study, to illuminate the relationship between employee perceived training effectiveness and employee attitudes. The results provide a picture of a robust relationship between the variables examined in the study. One of the challenges lying ahead, for researchers, is to re-examine the above relationships with better-designed instruments that measure the concepts discussed in this study.

An additional hurdle is the incorporation of the antecedents of employee perceptions and their personal characteristics. Those employees who are committed to undertake training, may feel differently, in comparison with those who are not interested in learning (Tsai et al., 2007).

The causality issue is yet another matter that needs to be illuminated. Future studies may attempt to delve into the mechanics of the relationships described above. Is it that the motivated person perceives his/her training as effective, or is it that the effective training makes him/her satisfied?

Further research may also look into the relationship of PTE with the distinct aspects of commitment (affective, normative and continual) as in Meyer and Allen (1991). Also, the relationship between PTE and the various dimensions of job satisfaction as measured by instruments, such as the Minnesota Satisfaction Questionnaire (Weis et al., 1967).

In case of detection of multicollinearity among the explanatory variables, we strongly recommend the use the transformation of variable method. One way of minimizing the dependence among variables, is to create a “meta-variable” by combining or transforming highly dependent or correlated explanatory variables (e.g. motivational commitment as a “meta-variable” derived from a combination of the variables motivation and commitment.

Also, different motivation measures may yield different results. Alderfer’s (1972) measure, which is the basis of the instrument used in this study, may produce different results than for instance, Sirotta et al. (2005). The latter, taking a totally different view of motivation (using a combination of Adam’s equity theory, McClelland’s need for achievement and the social needs component of all of the content motivation theories) may obtain different results, from the same sample.
Implications for managers. The results of this study point to the fact that, equally important with the actual quality and “frequency” of the training programs offered to employees, is the perceived effectiveness of the training programs. Training perceived by the employees to be effective, will likely have a positive impact on job satisfaction, commitment and motivation. Looking at the results from the opposite ankle, motivated, committed and satisfied employees, will probably be more inclined to desire to learn more through training programs, adding thus value to the human capital of the organization. Although motivation, job satisfaction and commitment, went through the scrutiny of researchers for more than 50 years, training has not been studied for that long, so managers ought to be careful as to what constitutes “adequate” training and what the characteristics of effective training are, particularly in the eyes of the trainee.

Conclusion
This paper substantiates the strong relationship between, employee perceived training effectiveness and motivation, job satisfaction and commitment. Although no causal relationships were found, the magnitude of the correlations indicates that the concepts examined are inextricably related and that this relationship, ought to be taken seriously by practicing managers, as well as academics. The study has attempted to shed light into the domain of employee attitudes, in terms of their relation to perceived training effectiveness. Future studies can further elucidate the found relationships, offering greater insight, concerning causality, incorporating more parameters in more comprehensive models and improving the efficaciousness of the existing ones.

References


**Further reading**


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