

Moderating effect of social support on the relationship between achievement motivation and training motivation

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ABSTRACT: The relationship between achievement and training motivation is examined in this study. The social support of managers and that of colleagues were taken as moderators by which to test their effect on the relationship of the two motivation types. Research results showed that achievement and training motivation are significantly related. Analysis of the moderating effect of social support showed that both kinds of support (managerial and colleague) have a moderating effect in organisations. When high managerial or colleague support coexists with high employee achievement motivation, it then leads to stronger training motivation.

INTRODUCTION

In response to rising global competition, corporations have incorporated training programmes with the aim of developing their human resources toward fulfilling challenging targets. Training motivation is a valuable tool by which to increase employee participation in training activities. If employees do not feel motivated to participate in training programmes, it will result in ineffectual training. Training motivation is defined as the expectancy that employees' desire to acquire knowledge and skills from training contents [1]. In the past decade, studies on training motivation have paid attention to the impact of training motivation on training effectiveness [1-4].

For example, a previous study asserted that training motivation was likely to enhance learning, and thus, result in a subsequent change of employee behaviour or an increase in a trainee's knowledge [1]. As researchers have emphasised, scholars should pay more attention to the antecedent factors of training motivation [3]. More recently, in an integrative model of training motivation, achievement motivation was proposed as an exogenous variable [5]. However, few studies have touched upon how achievement motivation is associated with training motivation. The first purpose of this study was to investigate the relationship between achievement motivation and training motivation.

A considerable percentage of the empirical studies on this subject claim that individual and situational factors must be considered simultaneously when studying their influence on training motivation [6][7]. Previous research focusing on the impact of situational variables during training has yielded significant evidence [3][8]. For example, a study found that a manager's support positively affected an employee's willingness to attend training programmes. Co-worker support was also employed as an environmental factor in a study [8]. Particularly, the situational influence of training motivation should be viewed as a moderating factor when evaluating the effectiveness of training programmes [7].

Accordingly, the second purpose of this study was to examine the effect of the moderation of social support on the relationship between achievement motivation and training motivation. The study included both kinds of support (managerial and colleague).

LITERATURE REVIEW AND RESEARCH HYPOTHESES

Training Motivation

Training motivation refers to the level of willingness displayed by an employee toward acquiring knowledge and skills from a training programme. A scholar indicated that the level of training motivation is evaluated on the basis of the concerned trainee's enthusiasm for learning and their endurance, when facing hardships with regard to training

materials [1]. In the past decade, training motivation has been regarded as the key determinant of training outcomes [2][4][6]. One study suggested that scholars undertake more research to have a deeper understanding of the connection between training motivation and other antecedents [2]. A study provided a model of the individual-level antecedents of training motivation. In this model, achievement motivation was expected to impact directly on training motivation [6]. In an integrative model of training motivation, achievement motivation was categorised as an individual personality characteristic. This factor directly predicted - and was also mediated by - pre-training self-efficacy, and then, influenced training motivation [5]. Since training is one means of developing skills toward fulfilling the need for individual career development and assisting individuals in surviving in the working environment, it should be expected to be associated with the individual's desire to achieve.

Achievement Motivation

Achievement motivation refers to the desire that drives individuals to accomplish tough goals and successfully conquer challenges. It is an inner intention that manifests in outer behaviour through either a success or failure status. Going by achievement motivation research, the intention is to take into account two aspects: tendency to approach success and tendency to avoid failure.

Scholars believe that achievement motivation includes two kinds of target-oriented actions: inner motivation and outer motivation. Remarkable effectiveness, which is determined by the concerned individual's efforts, yields inner motivation when the effectiveness itself is a reward. In contrast, individual behaviour yields outer motivation when the concerned individual puts in efforts toward obtaining instrumental rewards, such as promotion and reward [10].

Of the previously conducted research work on motivation, claims that people with high achievement motivation are likely to conquer difficult situations and possess self-belief regarding ownership of competitive abilities, are presented in a study. On the basis of this assumption, it was found in that research that motivation obviously increases an individual's self-efficacy during the training process [3]. In recent research, it was shown that achievement motivation directly and significantly influences training motivation [9]. To retest the relationship between achievement motivation and training motivation, the first hypothesis of this study is as follows:

Hypothesis H₁: *Achievement motivation is positively related to training motivation.*

Social Support Extended Toward Employee Training and Development

Many scholars claim that social support mainly comprises the managerial or colleague support of the knowledge and skills applied to tasks [8][11]. From the viewpoint of expectancy theory, unless trainees feel the obvious presence of these two support systems in the working environment, and are assured that this support will motivate them to improve their self-efficacy through the application of the learning contents, they will not be motivated to participate in training programmes.

Research outcomes have proved that the manager's support in the working environment directly influences the trainee's perception of the usefulness of the training programme, thus influencing his or her training motivation [6]. A previous study applied *manager* and *employer* as two contextual support variables, while examining the moderating effect of both on the relationship between training motivation and outcomes. The test found that the moderating effect of the employer's support is significant; however, the moderating effect of managerial support is marginal [8].

Despite the latter outcome, this research still emphasises that there is a close relationship between the manager's commitment toward providing support and employee participation in training programmes. Managerial encouragement should have a positive effect on a subordinate's willingness to attend training.

Since achievement motivation is a driving force that causes people to work harder and encourages them to face challenges, people clearly need to facilitate this motivation to conquer the challenges they face in their work. Training should not be regarded as an isolated event or a singular activity.

Instead, it should happen in a related matter alongside the other organisational tasks that employees are deeply involved in [12]. In other words, the situational factors of the working environment also exert an influence on the development of employees' recognition. In accordance with the findings of a previous research, the moderating function of situational factors should be taken into account. Thus, our second and third research hypotheses are as follows:

Hypothesis H₂: *Managerial support exerts a positive moderating effect on the relationship between achievement motivation and training motivation.*

Hypothesis H₃: *Colleague support has a positive moderating effect on the relationship between achievement motivation and training motivation.*

METHODOLOGY

Sample and Procedure

The 301 survey respondents were full-time employees working in high-tech companies in Taiwan. Of these, the ages of approximately 26.2% were below 25; those of 50.2% were between 26 and 35; and those of 21.6% were between 36 and 45. The remaining respondents were above 45 years of age. Among the respondents, 21.9% had received a high school diploma; 19.6%, a college degree; 37.2%, an undergraduate degree; and 21.3%, a Master's degree. The average organisational tenure was 55.4 months.

Measurements

Achievement Motivation

The respondents' achievement motivation was measured on the scale developed in Spence and Helmreich's Work and Family Orientation Questionnaire [10]. Three factors: work, skills and competition were measured using a total of 19 questions. The work factor consisted of five items with reliability $\alpha = 0.717$.

This is an example of the items measured by this factor: *I derive happiness from my work and some part of this happiness comes from improving upon my previous performance*. The skill factor consisted of six items with reliability $\alpha = 0.723$. An example of the items measured in this factor is: *I like to be busy most of the time*. The competition factor consisted of four items with reliability $\alpha = 0.716$. An example of the items measuring this factor is: *I like to work in a competitive environment*.

Educational Level and Work Experience

Educational level was categorised into four groups. Work experience was calculated on the basis of the working time spent by the person at his or current job and was measured in months.

Social Support

Social support included the support received from managers and colleagues. The variable was assessed using a 16-item scale [8]. Some example items: *My manager supported me in attending training and improvement classes* and *My colleagues will help me apply the skills I learn in my job*. The measurement of Cronbach's α is 0.919.

Training Motivation

The training motivation scale used in the study comprised 13 items with reliability $\alpha = 0.862$. An example item would be as follows: *The training classes can improve the skills related to my current job* [11].

RESULTS

Descriptive Statistics and Zero-Order Correlation of the Study Variables

Table 1 presents the means, standard deviations, and intercorrelations of all the research variables. Significant correlations were found between age and achievement ($r = -0.176$, $p < 0.01$) as well as between age and training motivation ($r = -0.186$, $p < 0.01$). In addition, the zero-order correlation between achievement motivation and training motivation was found to be positive and significant ($r = 0.445$, $p < 0.01$).

Table 1: Descriptive statistics and zero-order correlation of the study variables.

Variables	Mean	SD	Age	Level of E	Years of W	AM	MS	CS	TM
Age	1.99	0.748							
Level of E	2.58	1.054	0.165**						
Years of W	55.48	50.034	0.567**	-0.259**					
AM	4.67	0.880	-0.176**	0.146*	-0.036	.			
MS	5.10	0.812	0.097	-0.016	0.104	0.249**			
CS	4.97	0.904	-0.045	-0.072	0.089	0.228**	0.636**		
TM	4.46	0.521	-0.186**	0.099	0.034	0.445**	0.495**	0.369**	

Notes: Years of W = Years of Working experience in high-tech industries; Level of E = Level of Education; AM = Achievement Motivation; MS = Managerial Support; CS = Colleague Support. TM = Training Motivation. N = 301; $p < 0.1^*$, $p < 0.05^{**}$, $p < 0.001^{***}$

Analysis of Moderating Effects

The results of the hierarchical moderated regression analysis procedures are reported in Table 2. Model 1 employed the participant's age, level of education, and years of working experience in high-tech industries as the first level of the control variables. The coefficient for age was statistically significant and negative ($\beta = -0.189$, $p < 0.05$). Achievement motivation was added into the second level of Model 2. The coefficient of achievement motivation was statistically significant ($\beta = 0.589$, $p < 0.000$). The interaction of achievement motivation and managerial support was added into the third level (as Model 3). The coefficient of this interaction effect was also statistically significant ($\beta = 0.480$, $p < 0.000$). Including all the impact variables of Model 3, these variables and their interaction accounted for 46.1% ($R^2 = 0.461$) of the variance for the training motivation (37.9% for the main effects and 8.2% for the interaction). In Model 4, the moderating effect of colleague support was added to replace managerial support. The coefficient of the interactive effect between achievement motivation and colleague support was statistically significant ($\beta = 0.328$, $p < .000$). Including all impact variables of Model 4, these variables and their interaction accounted for 42.9% ($R^2 = 0.429$) of the variance for the training motivation (34.3% for the main effects and 5% for the interaction).

Examination of the hierarchical regression of Model 2 indicated that achievement motivation has a strong positive influence on the training motivation of employees. The result means that the stronger an employee's achievement motivation, the higher is his or her attendance of training programmes. Therefore, the study found evidence supporting Hypothesis H₁.

Hypothesis H₂ predicts that the factor of managerial support has a moderating effect on both achievement and training motivation. Thus, managerial support exerted a positive effect on employee attendance of training programmes. Therefore, the study found evidence supporting Hypothesis H₂.

Although the level of variance owing to the moderating effect of a colleague's support is not much higher, the result showed a statistical significance. It can still be proved that colleague support regarding whether or not to attend a training programme impacts on the relationship between achievement and training motivation, and thus, proves Hypothesis H₃.

Table 2: Moderated linear hierarchical regressions.

Dependent variables	(β)	Regression models of training motivation			
		Model 1	Model 2	Model 3	Model 4
Controlling variable					
Age		-0.189*	-0.117*	-0.131**	-0.146**
Education Level		0.023	0.037	0.026	0.706
Years Worked		-0.027	-0.008	-0.035	-0.464
Anticipated variable					
Achievement Motivation (AM)			0.589***	0.205**	0.350***
Interacting influence					
AM \times manager support				0.480***	
AM \times colleague support					0.328***
R2		0.036	0.379	0.461	0.429
R2 change			0.343	0.082	0.050
F		3.707*	45.108***	50.468***	44.407***

* $P < 0.05$, ** $P < 0.01$, *** $P < 0.001$

To discuss further the possible effects of these two interacting influences, these results are graphically represented in Figures 1 and 2.

First, the sample was divided into two groups - high and low - using the managerial support median. Figure 1 shows the form of the joint relationship of the effects of achievement motivation and managerial support on training motivation. From the plot, it can be seen that regardless of whether the achievement motivation is low or high, a highly committed manager's support always promotes higher training motivation than a poorly committed manager's support. The training motivation appears to be highest when the achievement motivation is strong and backed by a high level of managerial support.

The colleague supporting variable is also divided into two groups in accordance with the median. Figure 2 shows the form of the joint relationship of achievement motivation and colleague support on training motivation. From the plot, the two groups emerge: one receiving a high level of colleague support and the other receiving a low level of colleague support. In the high support group, when achievement motivation is lower than average, the trainees' training achievement is still significantly higher than that of the trainees in the low support group.

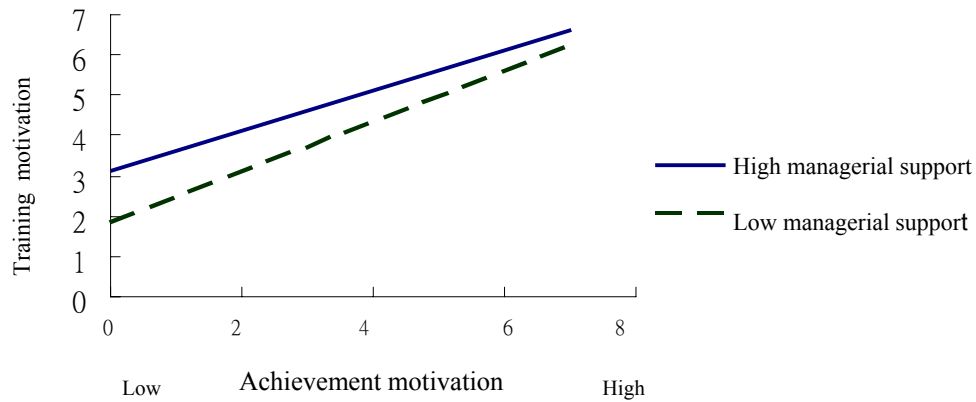


Figure 1: Moderating effect of managerial support.

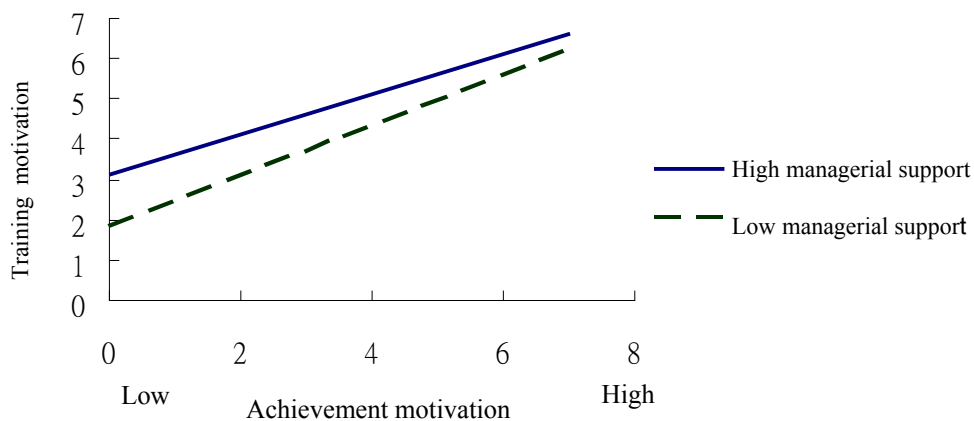


Figure 2: Moderating effect of colleague support.

CONCLUSION

The study was designed to examine the association between achievement motivation and training motivation. Previous research had not addressed this issue when testing the antecedents of training motivation [5]. In order to consider simultaneously individual and contextual influence factors, two kinds of social support, that is, managerial and colleague support, were taken as moderating variables when analysing their effect on the relationship between achievement motivation and training motivation. The research results showed that achievement motivation significantly affects training motivation. Such evidence of a positive association was not found in the previous studies on the subject [9].

Analysis of the moderating effect of social support variables showed that both kinds of support (managerial and colleague) do exert a moderating effect in organisations. High managerial or colleague support in the case of employees harbouring high achievement motivation, apparently, will result in stronger training attendance motivation. However, the implications of the effects of colleague and managerial support were different. In the case of colleague support, both the high and low motivation groups presented a minor difference in the level of association between achievement motivation and training motivation. Employees harbouring higher training motivation did not perceive high colleague support.

The results of this research have the following implications. First, the effect of personal achievement motivation will result in employees deriving an inner satisfaction in attending training. Thus, attending a training programme itself becomes a reward. Apparently, this inner drive encourages participation. Second, on dividing the influences on training motivation into personal and situational factors, the situational factor is found to moderate significantly the relationship between personal psychological factors during the training process.

The outcome of this study implied that training is a part of the social system, taken as a whole, rather than merely an individual activity. Organisational social support will vary in different environments. This is why a higher level of social support in a working environment can successfully raise personal achievement motivation and result in higher training motivation.

Further, in practice, managers have the power to command subordinates and possess the resources to offer incentives toward encouraging expected behaviour. Hence, a manager's support or lack of it toward his or her subordinates' attendance of training can easily influence employee action regarding the attending of training activities. Organisations should adopt a tactic to ensure managerial or colleague support toward employee attendance of training [11].

Third, from the results indicating that employees' perception of low level of colleague support results in higher achievement and training motivations, it can be inferred that the competition between organisational colleagues cannot be neglected. This means that when colleagues are not likely to support each other, individuals tend to seek the opportunities to enhance their personal skills by attending training programmes to gain an edge over the competition. Under the above circumstances, the achievement motivation of employees is observed to be at a higher level.

Certain limitations exist in this study. First, the sample consisted of only a few industry categories, and so the results cannot be said to be pertinent to a large number of high-tech industries. Second, the degree of variance between the two moderating effects was modest (8.2% and 5% respectively). This research merely investigated the moderating effect of two social support influences. Other contextual factors, such as organisational climate and culture, might have provided better understanding of how individual and situational effects jointly associate with employees' inner motives. Hence, further research that includes other contextual factors is necessary.

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