

DETERMINANTS OF LEARNING MOTIVATION  
IN ELECTRONICS-BASED INDUSTRY

by

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## ABSTRAK

Tujuan kajian ini adalah untuk mengenalpasti beberapa penentu yang memotivasi pembelajaran di kalangan pekerja di organisasi pengeluaran. Kajian ini menyelidik peranan pengantara yang dimainkan oleh tanggapan pekerja terhadap kebergunaan latihan ke atas kerja dalam mengaitkan tiga pembolehubah tak bersandar dan pembolehubah bersandar, iaitu motivasi pembelajaran. Ketiga pembolehubah tak bersandar yang dikaji adalah daripada sudut konteks pekerja sendiri dan juga konteks persekitaran kerja mereka. Peramal konteks perseorangan adalah kecekapan sendiri (self-efficacy), manakala peramal konteks persekitaran kerja adalah sokongan penyelia dan sokongan rakan sekerja dalam pemindahan pembelajaran latihan.

Data dikumpul dari sampel yang terdiri daripada 252 orang pengurus bawahan dan pertengahan (sebagai pelatih) sebelum pemulaan program latihan di organisasi elektronik multinasional di negeri Pulau Penang.

Hasil kajian menyokong hipotesis yang dirumuskan. Keputusannya menunjukkan bahawa hubungan di antara kecekapan sendiri dan motivasi pembelajaran adalah diantarakan secara separa oleh tanggapan kegunaan latihan ke atas kerja. Sebaliknya, hubungan antara sokongan penyelia dan sokongan rakan sekerja dalam pemindahan pembelajaran latihan dengan motivasi pembelajaran adalah didapati diantarai sepenuhnya oleh pemerhatian kegunaan latihan ke atas kerja.

Kajian ini mempunyai implikasi yang penting kepada organisasi. Pengurusan perlu terlebih dahulu memahami apa yang memotivasi pekerja mereka untuk membangunkan pekerja mereka demi menghadapi cabaran global supaya tetap berdaya saing dalam persekitaran perniagaan yang mencabar.



## ABSTRACT

The purpose of this study was to identify some determinants that motivate learning among employees in manufacturing organisations. The study examines the mediating role played by employee's perceived job utility of training in linking the relationship of three independent variables and the dependent variable—learning motivation. The three independent variables studied were from the view of employees' personal context as well as their work environment context. The personal context's predictor was self-efficacy, whereas the work environment context's predictors were supervisor's support in transfer of training and work group's support in transfer of training.

Data were collected from a sample of 252 lower and middle level managers (as trainees) prior to the commencement of training programmes in multinational electronics-based organisations in Penang state.

The findings provide support to the hypotheses formulated. The results showed that the relationship among self-efficacy and learning motivation was mediated partially by perceived job utility of training. On the other hand, the relationship of supervisor's support and work group's support with learning motivation was found fully mediated by perceived job utility of training.

This study has essential implications for organisations. Management have to first understand what motivates their employees in order for them to develop their employees for the global challenges in order to stay competitive in today's challenging business environment.

## Chapter 1

### INTRODUCTION

#### 1.1 Introduction

In Human Resources Development, one of the most commonly recognized approaches to improve performance is training (Borowski, 2000). Training includes instructional experiences which are designed to develop skills and knowledge to achieve organizational objectives, to assist organizational change and ultimately, to be applied in the workplace for the sake of organizational improvement (Broad & Newstrom, 1992).

In recent years, training has become the focus of increased attention and research. This growing interest in training is due to several needs. According to Cascio (1991), the continual need for training for individual and organizational development reflects demands to maintain superiority in the market place, enhance employee skill and knowledge and increase productivity. Stanford (2000) found that the effectiveness of an organization is dependent on its human resources and their skills and abilities. The increasing importance of manufacturing exports has led to new challenges in the international arena with the liberalization in world trade and globalization of industries. Timely investment in human resources through education, training, and retraining is therefore a crucial element in strategizing the direction and speed of industrial development (Kadir, 1996). In short, organizations need to improve organizational practices through human resources training and development; to prepare their employees for the global challenges in order to stay competitive in today's challenging business environment. Thus, it is critical for organizations to understand the factors that are associated with training effectiveness.

Literature on training (Goldstein, 1989, 1993; Thayer, 1997; Wexley & Latham, 1991) suggests that the vast number of changes occurring in organizations highlights the need for more training effectiveness. To ensure that training is effective, it is important to look beyond the quality of the trainers, training methodologies, techniques, training

facilities, and training programs. Traditionally, researchers have frequently attempted to increase the effectiveness of training by focusing on training techniques. Past research into training system design has most often concentrated on a relatively small set of variables, such as training method, content, and equipment (Ramirez, 2000). The present study focuses beyond that. It focuses on personal as well as work environment factors that determine trainees' motivation to learn. Specifically, this study aims to identify some determinants of learning motivation among supervisors or lower level management staff in Malaysian organizations. Without motivation to learn, even the most sophisticated training program can hardly be effective. As such, this study looks at both personal and work environment context as factors that motivate training.

An employee's personal context was studied in this survey on learning motivation, namely employees' self-efficacy. The work environment context studied was related to the people at work place; supervisors and work group who play key roles in training transfer climate. In addition, perceived job utility of training is deemed as a mediator in this study. It is important to examine a few variables which have been researched to be determinants of learning motivation so as to enable personnel in Training and Development to further enhance future training activities to meet the organization's human resources development plan. This study is built upon expectancy theory and proposes that learning motivation is a direct function of the extent to which the trainee believes that training will result in meeting his or her expectations.

It is hoped that the present study would provide some useful findings, that will assist organizations in designing effective and impactful training programs that will enhance employees' performance in a micro view and subsequently will enhance overall organization's competitiveness in a macro view.

## 1.2 Research Problem

The common complaint related to training activities is that trainees have little motivation to learn. The quality of training programs or the trainers will not ensure training effectiveness if there is lack of motivation to learn. Therefore, besides looking at the training programs, organisations have to first understand what motivates their employees so that the training objectives in the manufacturing industries are achieved. Thus, this research attempts to turn the spotlight of researches transpired in Western countries pertaining to learning motivation to Malaysian organisations.

The main research question for this study, then, is: What are the determinants of learning motivation to enhance the effectiveness of training? As such, fundamentally the intent of this study was to attempt to examine the following questions:

- a) Is there any significant relationship between employees' self-efficacy and perceived job utility of training?
- b) Is there any significant relationship between supervisor's and work group's support in transfer of training and perceived job utility of training?
- c) Is there any significant relationship between employees' self-efficacy and learning motivation?
- d) Is there any significant relationship between supervisor's and work group's support in transfer of training and learning motivation?
- d) Does perceived job utility of training mediate the relationship between employees' self-efficacy and learning motivation?
- e) Does perceived job utility of training mediate the relationship between supervisor's support in transfer of training and learning motivation?
- f) Does perceived job utility of training mediate the relationship between work group's support in transfer of training and learning motivation?

The terms used in the above questions are defined as follows:

Supervisor support and work group support in transfer of training. Support from trainees' supervisor and work group to use trainees' trained knowledge and skills on the job effectively after their training programs.

Job utility of training. Defined by Ford and Noe (1987) as "an individual's attitudes towards the usefulness of training programs."

Self-efficacy. Self-efficacy is the belief that one is capable of successfully performing a specific task (Bandura, 1995).

Learning motivation. The intention to learn the course material, put forth effort, participate actively in the course, complete assignments on time and work on course material outside class (Gregory & Catherine, 1993).

### **1.3 Objectives of the Study**

This study has been designed to test general hypotheses to identify some of the determinants that motivate learning. According to Mergener and Weinswig (1979), motivation to learn can be considered as one of the necessary pre-requisites to effective learning. These determinants gathered from lower to middle level management staff would assist training personnel to effectively identify, plan and organize training activities in the future. The motivational determinants will assist in employees' involvement in training programs, to emphasize the importance of senior management support, and to create a conducive work environment/climate to enable trainees to apply what they have learnt. In addition, trainees' attitude and perception of the utilitarian value of training programs are important factors to be considered when identifying and scheduling training programs for employees.

It is hoped that the findings of the present study would contribute to the literature of learning motivation, perceived job utility of training, self-efficacy, and supervisor's and work group's support in transfer of training. Specifically, this study was intended to investigate: (a) the relationship between employees' self-efficacy and perceived job utility of training; (b) the relationship between supervisor's, and work group's support in transfer

of training and perceived job utility of training; (c) the relationship between employees' self-efficacy and learning motivation; (d) the relationship between supervisor's and work group's support in transfer of training and learning motivation; (e) the mediating effect of perceived job utility of training between the relationship of the independent variables (self-efficacy, supervisor's, and work group's support in transfer of training) and learning motivation.

#### **1.4 Organization of Chapters**

This study is organized into five chapters. Chapter 1 introduces the subject matter, explains the research problem, and states the objectives of this study. It is aimed at identifying some determinants of learning motivation among Malaysian employees at exempt level in Penang Island's organisations. The remaining chapters have been organised in the following manner: Chapter 2 surveys previous studies and their findings on learning motivation, perceived job utility of training, self-efficacy, supervisor's support in transfer of training, and work group's support in transfer of training. The theoretical framework and formulation of hypotheses for investigation are included at the end of this chapter. Chapter 3 outlines the research methodology, which covers the discussion on research site, comprises sampling procedure, instruments, and the statistical analyses deployed. Chapter 4 presents various analyses of data collected and the respective findings. Last but not least, Chapter 5 concludes the study, discusses survey findings, highlights some limitations, provides implications for management, and gives some suggestions for future studies in this field.

## Chapter 2

### LITERATURE REVIEW

#### 2.1 Introduction

This chapter reviews at the relevant literature that forms the basis of this study. To understand the related knowledge on the subject of this study, the literature survey encompasses previous research studies on learning motivation, perceived job utility of training, self-efficacy, supervisor's support in transfer of training, and work group's support in transfer of training. These are presented in sections 2.2, 2.3, 2.4, 2.5, and 2.6 in this chapter. The review will serve to compare and contrast the findings of past researches and the views of experts in this field. Section 2.7 presents a theoretical framework of the study, followed by the formulation of hypotheses in Section 2.8. Lastly, section 2.9 provides a summary of the chapter discussion and an overview of the subsequent chapter.

#### 2.2 Learning Motivation

Different researchers have defined motivation differently. Psychologists define it as an internal process that activates, guides, and maintains behavior over time. In other words, motivation gets a person going, keeps a person going, and determines where a person is trying to go (Slavin, 2000). A shift from a behavioural to cognitive perspective in American psychology in the 1960s and 1970s brought a reintegration of motivation with learning (Driscoll, 2000). Thorndike (1898) was the first psychologist to document experimentally the link between learning and motivation (Sprinthall, Sprinthall, & Oja, 1998). According to Marshall (1987), the term "motivation to learn" has a slightly different meaning and it was defined as the meaningfulness, value, and benefits of academic tasks to the learner—regardless of whether or not they are intrinsically interesting. Another author notes that motivation to learn is characterized by long-term, quality involvement in learning and commitment to the process of learning (Ames, 1990).

According to Stanford (2000), conceptually, pre-training and post-training motivation are distinct. Pre-training motivation is typically focused on impacting the

acquisition of knowledge and skills, and post-training motivation is concerned with application of the knowledge and skills to the job. He noted that there has been an increased interest in pre-training influences as a way to understand what determines training effectiveness in terms of learning and transfer. Several researchers (e.g., Noe, 1986) have recognized that motivation to learn is critical for training effectiveness and those researchers need to identify factors that foster such motivation. It is recognized that knowledge acquisition is influenced by the motivation to learn the material (Hicks, 1984; Keller, 1983). Several studies have contended that a variety of factors not typically considered in training design research may have a significant impact on training effectiveness (Noe, 1986, Tannenbaum & Yukl, 1992). There is a need for expanded view of training effectiveness. For example, Campbell (1988) and Tannenbaum and Yukl (1992) have suggested that the role of variable such as trainees' motivation and attitudes, both before and after training, should be investigated more thoroughly.

Several individuals (e.g., Baldwin & Ford, 1988; Goldstein, 1986; Noe, 1986; Noe & Schmitt, 1986) have proposed that learning during training is a function of Ability x Motivation. Thus, irrespective of trainees' ability levels, they must be motivated if training is to be effective. According to Mathieu, Martineau, and Tannenbaum (1993), several non-technical factors also have a significant impact on training outcomes. These factors included self-confidence, task related attitudes, expectations for training, training fulfilment, and pre training motivation. The results of the study implied that no matter how well designed a training program is, training effectiveness will not be optimised without a consideration of pertinent individual and organization factors. More recently, Mathieu and Martineau (1997) developed an integrated theoretical framework of the individual and situational influences on training motivation. They suggested that individuals enter training with differing levels of motivation due to personal characteristics and the work environment. The model predicts that trainees who are motivated to do well in training will



learn the content or principles of the program better than will less motivated participants. Hence, it is important to examine the determinants that affect training motivation.

### **2.3 Perceived Job Utility of Training**

Job utility is the perceived usefulness of the training course to facilitate goals associated with the current job, such as increased productivity, reduced errors, or better problem-solving skills (Gregory & Catherine, 1993).

It is recognized that knowledge acquisition is influenced by the motivation to learn the material (Hicks, 1984; Keller, 1983). Ford and Noe (1987) added yet another motivational dimension, namely, the motivation to use the skills on the job. This is presumably driven by two underlying factors: (a) the degree to which trainees feel confident in their ability to use the skills and (b) their beliefs about the relevance and applicability of the skills in the job situation. Although Noe's contention seems reasonable, it received little empirical support in the study (Noe & Schmitt, 1986) designed to examine it, as that study suffered from certain methodological difficulties resulting in equivocal conclusions.

Based on Nease's (2000) research, key reasons for attending training are compliance, skill improvement, intrinsic interest, career management, and performance standards. Individuals who reported attending the program based on intrinsic interest or a desire for skill improvement reported higher motivation to learn, while those who attended due to a compliance motive were less motivated to learn. Performance and goal orientation emerged as significant predictors of individuals' reasons for attending training. Further, motivation to learn was positively related to training reactions. The results suggest that individuals' decisions to attend training and development programs may be based on complex factors and personal goals.

According to Gregory and Catherine's (1993) research findings, perceived job and career utility were significant predictors of training motivation. Trainees were more motivated to learn when they perceived that their training would be related to performance in their current job or provide them with the opportunity for future advancement. This

finding demonstrates the value of expectancy theories (e.g., Porter & Lawler, 1968; Vroom, 1964) for predicting training motivation and indicates that training programs must be perceived as relevant for either future job performance or career advancement if trainees are to be motivated. Lack of training motivation may be the result of a trainee's perception that training has little utility. The trainee may not believe that training will result in improved job performance or in enhanced career opportunities. Thus, the present study determines the extent to which perceived job utility is associated with training motivation.

#### **2.4 Self-Efficacy**

Self-efficacy is defined as the belief that one is capable of successfully performing a specific task (Bandura, 1986). It is one of the most theoretically, heuristically, and practically useful concepts formulated in modern social psychology. According to Bandura's (1995) theory and research, self-efficacy makes a difference in how people feel, think, and act. Self-efficacy is a central concept in Bandura's social learning theory (Bandura, 1979). Perceptions of efficacy have important implications for motivation, since they determine the behavioural alternatives people choose and the amount of effort they expend on a task (Bandura, 1984). Self-efficacy expectations or beliefs in our capabilities to successfully perform a given behaviour or class of behaviours are postulated to influence behavioural choices, performance, and persistence. Thus, self-efficacy beliefs can be useful in understanding and predicting behaviour.

During the past decade, self-efficacy beliefs have also received increasing attention in educational research, primarily in the area of academic motivation (Pintrich & Schunk, 1995). In academic settings, self-efficacy instruments may ask students to rate their confidence to solve specific mathematics problems (Hackett & Betz, 1989), perform particular reading or writing tasks (Shell, Colvin, & Bruning, 1995), or engage in certain self-regulatory strategies (Bandura, 1989). Studies also investigated the relationships among efficacy beliefs, related psychological constructs, and academic motivation and achievement. Self-efficacy has been prominent in studies that have explored its relationship

with goal setting (Locke & Latham, 1990; Wood & Locke, 1987), problem solving (Bouffard, 1989; Larson, Piersel, Imao, & Allen, 1990), reward contingencies (Schunk, 1983b), self-regulation (Bandura, 1991), social comparisons (Bandura & Jourden, 1991; Schunk, 1983a), strategy training (Schunk & Cox, 1986), teaching and teacher education (Ashton & Webb, 1986; Woolfolk & Hoy, 1990; Woolfolk, Rosoff, & Hoy, 1990), anxiety and self-concept (Pajares & Miller, 1994, 1995), and varied academic performances (Bouffard & Vezeau, 1996; Malpass & O'Neil, 1996; Bandura, 1993, and Zimmerman & Bandura, 1994). Researchers have reported that self-efficacy beliefs are correlated with other self-beliefs, motivation constructs, and academic choices, changes and achievement.

Findings also support Bandura's (1986) contention that efficacy beliefs mediate the effect of skills or other self-beliefs on subsequent performance by influencing effort, persistence, and perseverance (Bouffard, 1990; Schunk & Hanson, 1985). Self-efficacy can shed light on why two individuals of similar ability may perform very differently. It can affect choices, goals, and learning behaviors. Individuals who are high in self-efficacy tend to be more resilient and higher in performance. Self-efficacy levels can enhance or impede motivation. People with high self-efficacy choose to perform more challenging tasks (Bandura, 1995). They set themselves higher goals and stick to them. Noe (1986) incorporated self-efficacy into his theoretical model of training effectiveness, believing that these beliefs could influence trainees' motivation to learn. Studies have found that self-efficacy is related to success in training (Gist, Schwoerer, & Rosen, 1989). Thus, in this study, attention is given to self-efficacy as one of the independent variables.

## **2.5 Supervisor's Support in Transfer of Training**

Broad (1997) and Ford and Weissbein (1997) defined transfer of training as the effective and continuing application of newly acquired skills on the job and it continues to be a critical issue for organizations. Enormous investments in training are believed to be largely wasted because of inadequate transfer, especially in the "soft skills" area of management development such as interpersonal communication and negotiation skills training (Broad &

Newström, 1992; Georges, 1996). A widely respected conceptual framework for analysis of the transfer problem (Baldwin & Ford, 1988) suggests that transfer is a function of three factors: trainee characteristics, work environment, and learning retention. Yet, as noted by Salas, Cannon-Bowers, and Kozlowski (1997), there is little empirical research on the mechanisms and principles of skill practice in relation to learning and transfer in a field environment. A work environment that is favourable for the trainee to implement newly learned skills and behavior, where such initiative is supported, would motivate a trainee to learn and to transfer the skills and behavior (Noe, 1986).

A growing body of research has demonstrated that support in the workplace has important implications for many aspects of organizational behavior. Many studies have shown that social support increases job satisfaction and commitment (Agho, Mueller, & Price, 1993; Allen & Meyer, 1990; Eisenberger, Fasolo, & Davis-LaMastro, 1990; Mathieu & Zajac, 1990), decreases turnover and absenteeism (Anderson, 1991; Furnham & Walsh, 1991; Shore & Wayne, 1993), and enhances overall mental health (Buunk & Verhoeven, 1991; Haines, Hurlbert, & Zimmer, 1991). The combined evidence suggests that social support is an important determinant of organizational effectiveness and personal well-being.

Many researches noted that factors of organizational environment such as manager support for training, situational constraints, and climate are likely to have influence on transfer and other training outcomes (Mathieu, Martineau, & Tannenbaum, 1993; Mathieu, Tannenbaum, & Salas; 1992; Noe, 1986), although empirical support for these propositions is lacking (Baldwin & Ford, 1988).

A study by Brinkerhoff (1995) on the effect of immediate supervisors conducting pre-training expectations discussions and after training follow-up discussions with employees indicated that superiors' intervention did lead to higher instances of training transfer. Researchers have documented that a large number of trainees do not use their new skills and knowledge when they return to their workplace (Baldwin & Ford, 1988; Noe,

1986), as they believe that they will not have support from their supervisors for using their new skills when they return to the job. Thus, we expect that trainees who expect no support from their supervisors will not perceive highly on the job utility of training and will not be motivated to learn with no improvement on their actual job performance. As such, looking at the work environment context, supervisor's support in transfer of training has to be studied in this research

## **2.6 Work Group's Support in Transfer of Training**

Malaysia is categorized as being a large power distance and high context culture society (Hofstede, 1991). Malaysia is also regarded as a collectivist society, where the organization is perceived as a collectivity of people and authority attached to individuals in senior and leading positions. As such, hierarchy is valued and superiors are normally accepted without much challenge. The value orientation in the Malaysian society seems to be relationship building, with respect for elders, group harmony, modesty and loyalty and group spirit. In simple words, Malaysians are motivated by their affiliation to groups (Abdullah, 1992).

Although it has long been recognized that training operates within a larger organizational system (Campbell, 1988), relatively little work has examined the role of the contextual environment in training transfer processes (Baldwin & Ford, 1988; Goldstein, 1993) that might be one of the determinants of learning motivation in manufacturing settings.

The climate literature has indicated that multiple distinct climates may operate within a single organization (Glick, 1985; Schneider, 1983). In fact, a research associating work group support climate with training transfer has examined how climates that exist at the organization (Kozlowski & Hults, 1987), work unit (Rouiller & Goldstein, 1993; Tracy, Tannenbaum & Kavanagh, 1995), and work group levels (Ford, Quinones, Sego & Sorra, 1992; Russell, Terborg, & Powers, 1985) may affect transfer. Hence, the limited research on

the influences of climate on training transfer suggests that multiple climates at different levels within the organization may simultaneously motivate employees to learn.

Rouiller and Goldstein (1993) found that "transfer of training climate," defined as social cues (e.g., interactions with peers) and consequences (e.g., positive feedback), influenced trainees' use of trained behaviors and skills on the job. Tracy, Tannenbaum, and Kavanagh (1995) demonstrated that both transfer of training climate (such as supervisor and work group that support the use of trained knowledge and skills on the job effectively) and continuous learning culture influenced post-training behaviors. A work environment that is favorable for the trainee to implement newly learned skills and behavior, where peers support such initiative, would motivate a trainee to learn and to transfer the skills and behavior (Noe, 1986). According to Gregory and Catherine (1993), expected training transfer climate affects the perceived job utility of training. As such, looking at the work environment context, work group support in transfer of training has to be studied in this research.

## **2.7 Theoretical Framework**

An overall review and study of the literature mentioned above seems to suggest that although learning motivation has been researched in the environment context of supervisor's and work group's support in transfer of training, personal context of employees' perceived job utility of training, and students' self-efficacy and learning motivation, little or no research has actually examined the relationship between employees' self-efficacy and learning motivation mediated by the perceived job utility of training in manufacturing settings. Thus, the dependant variable of interest in this study is learning motivation. The independent variables were self-efficacy, supervisor's support in transfer of training, and work group's support in transfer of training and the mediator is trainees' perceived job utility of training. In other words, the present study intends to examine the relationship of the three independent variables with learning motivation and also their relationships when it is moderated by perceived job utility of training. It also intends to

identify the effect of perceived job utility of training as a mediator on the relationship between self-efficacy, supervisor's support, and work group's support in transfer of training and learning motivation. The framework is depicted in Figure 1.

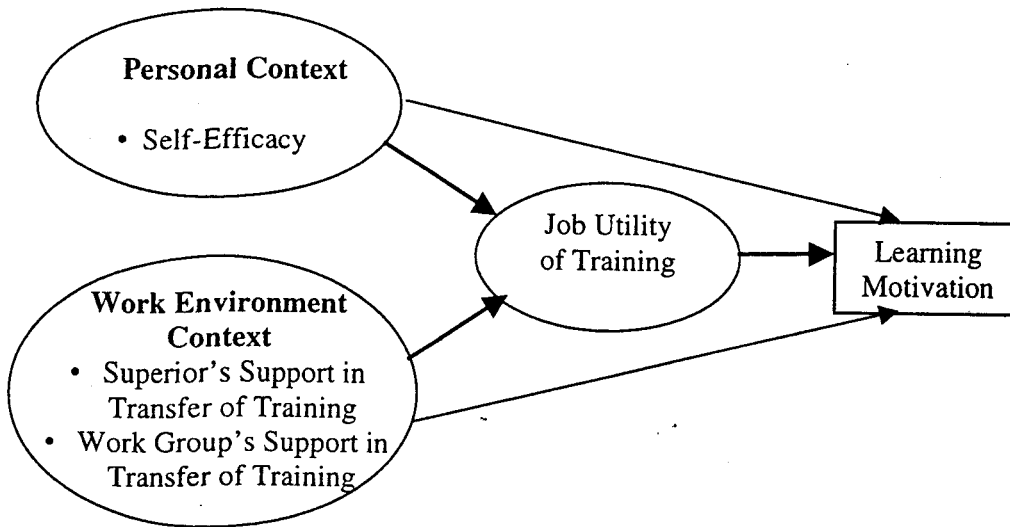


Figure 1. Theoretical Framework.

## 2.8 Hypotheses

Past researches as discussed above have provided evidence that self-efficacy, perceived job utility of training, supervisor's, and work group's support in transfer of training are determinants of learning motivation. Based on the theoretical framework drawn, six main hypotheses were developed for empirical verifications in this study.

According to Bandura (1984), self-efficacy has important implications for motivation, since it determines the behavioural alternatives people choose and the amount of effort they expend on a task. Thus, self-efficacy beliefs can be useful in understanding and predicting behaviour. Ford and Noe (1987) found two dimensions of motivation in using skills on the job; (a) the degree to which trainees feel confident in their ability to use the skills and (b) their beliefs about the relevance and applicability of the skills in the job situation. Hence, it is expected that trainees who feel confident in their ability to use the skills will perceive highly on the job utility of training. During the past decade, self-efficacy beliefs have received increasing attention in educational research, primarily in the area of academic motivation (Pintrich & Schunk, 1995). Thus, the following hypothesis is in order:

**Hypothesis 1.** *Self-efficacy correlates positively with perceived job utility of training.*

As mentioned in the literature review, researchers have documented that a large number of trainees do not use their new skills and knowledge when they return to their workplace (Baldwin & Ford, 1988; Noe, 1986), as they believe that they will not have support from their supervisors for using their new skills when they return to the job. Thus, it is expected that trainees who expect no support from their supervisors will not perceive the job utility of training highly and will not be motivated to learn with no improvement on their actual job performance. Besides, a work environment that is favorable for the trainee to implement newly learned skills and behavior, where peers support such initiative, would motivate a trainee to learn and to transfer the skills and behavior (Noe, 1986). According to Gregory and Catherine (1993), expected training transfer climate affects the perceived job utility of training. As such, looking at the work environment context, the following hypotheses were formed:

**Hypothesis 2a.** *Supervisor's support in transfer of training correlates positively with perceived job utility of training.*

**Hypothesis 2b.** *Work group's support in transfer of training correlates positively with perceived job utility of training.*

A strong source of motivation comes from learners' beliefs about themselves in relation to task difficulty and task outcome (Driscoll, 2000). Studies have found self-efficacy to be the second most important predictor of learning motivation after ability of a student's academic achievement (Slavin, 2000). In educational research, Ormrod (2000) found that young children tend to believe that they can do well in school if they expend a reasonable amount of effort. The work of previous research furnishes a theoretical rationale for linking self-efficacy with learning motivation. Due to the lack of researches pertaining to the relationship of employees' self-efficacy and their motivation to learn in manufacturing setting, the following hypothesis was in order:



**Hypothesis 3.** *Trainees' self-efficacy correlates positively with learning motivation.*

In 1995, a study was conducted by Jeffrey, Gregory, Joyce and Robert to determine whether trainees' general beliefs about training affect pre-training motivation and transfer of training in a large-scale training curriculum. The influence of social support for training from four organizational constituents (top management, supervisors, peers, and subordinates), and task constraint in the work environment on pre-training motivation and training transfer were evaluated. The survey's results indicated that three social support variables (supervisor, peer, and subordinate) were predictive of pre-training motivation. In other words, trainees who believe that they will not have the support from either peers or supervisors for using their new skills when they return to the job may not be motivated to learn during training because they recognize that the training will not be useful for them (because it will not transfer to the job). Thus, it is expected that trainees who anticipate a non-supportive training transfer climate from either supervisors or peers will believe that training will not improve their actual job performance. Consequently, they will be less motivated to learn during training. Based on these discussions, the two hypotheses were formulated as follows:

**Hypothesis 4a.** *Supervisor's support in transfer of training correlates positively with learning motivation.*

**Hypothesis 4b.** *Work group's support in transfer of training correlates positively with learning motivation.*

According to Gregory and Catherine's (1993) research findings, perceived job and career utility were significant predictors of training motivation. Trainees were more motivated to learn when they perceived that their training would be related to performance in their current job or provide them with the opportunity for future advancement. Lack of training motivation may be the result of a trainee's perception that training has little utility, that is, the trainee may not believe that training will result in improved job performance.

According to Bandura's (1995) theory and research, self-efficacy makes a difference in how people feel, think, and act. Thus, it is expected that trainees who believe that they are capable of successfully performing a specific task, will perceive highly on the job utility of training and will be motivated to learn (Bandura, 1986). Thus, the following hypothesis was offered:

**Hypothesis 5.** *Perceived job utility of training mediates the relationship between self-efficacy and learning motivation.*

As per the research carried out by Gregory and Catherine (1993), one of the findings in their study was that expected training transfer climate affected perceived job utility, which, in turn, affected training motivation. Although the finding was only marginally significant, it indicates that, even before training, the trainees may consider either their supervisors or work groups will support them to use their new skills and knowledge when they return to the job. If trainees do not believe that their supervisors or work groups will support training transfer, they will tend to believe that the training will have limited job utility and thus not be motivated during training. Increasing supervisors' and work groups' support for training transfer should lead to higher expected job utility of training and, subsequently, to higher training motivation. Thus, the following hypotheses were formulated:

**Hypothesis 6a.** *Perceived job utility of training mediates the relationship between supervisor's support in transfer of training and learning motivation.*

**Hypothesis 6b.** *Perceived job utility of training mediates the relationship between work group's support in transfer of training and learning motivation.*

## 2.9 Summary

In short, this chapter reviewed past findings about learning motivation, perceived job utility of training, self-efficacy, supervisor's, and work group's support in transfer of training. Based on the past literature, the theoretical framework and six hypotheses were formulated. Next, Chapter 3 discusses the methodology of the present study.

## Chapter 3

### METHODOLOGY

#### 3.1 Introduction

The present study investigates some variables that determine employees' learning motivation. The determinants take into consideration, both personal and work environment context. The study also investigates the mediating effect of perceived job utility of training. Thus, this chapter is devoted to the methodology and statistical analyses employed in this study. This chapter comprises of six sections. Section 3.2 discusses the research site. Section 3.3 elaborates the sample and procedures of the survey conducted. Section 3.4 explains the measures used for perceived job utility of training, self-efficacy, supervisor's support in transfer of training, work group's support in transfer of training, and learning motivation. Section 3.5 describes the statistical analyses employed in this study. A summary concluding this chapter is found in section 3.6.

#### 3.2 Research Site

This study was carried out on the Malaysian lower to middle management level staff employed in profit-oriented organizations located predominantly in the state of Penang. The reason for confining the study to the state of Penang was merely due to time constraints. The study focused mainly on electronics-based organisations operating in Bayan Lepas Free Industrial Zone, Penang. The choice of a single industry (manufacturing) was to reduce variability of conditions surrounding the subjects.

Organizations that are likely to have active training programs were approached to participate in the research. Out of sixteen organizations contacted, four indicated that they either did not have formalized training programs or would not be conducting training during the duration of the study. Four organisations withdrew from participating in the survey due to their companies' policy. Eight organizations agreed to participate in the study, and they were multinational corporations in electronics industry.

### 3.3 Sample and Procedure

A total of 252 trainees ranked from lower to middle management level professionals working in electronics-based industry in Penang participated in this study. These participants represented 14 training groups sponsored by 8 organizations. Across the training groups, there were wide variations in age, cultural background, education level, years of service with their current company and supervisor, duration of training, type and number of training programs attended in their organizations.

Data for this study were collected by means of a questionnaire. A formal letter from Universiti Sains Malaysia (USM) was attached with the questionnaire to explain to the respondents the purpose of the research, to ensure the confidentiality of the information provided, and to thank them for their participations. The questionnaire consisting of six sections were personally delivered by the researcher to all her training field contacts prior to any training courses to be conducted by the participating organizations. The questionnaire contained scales designed to assess training motivation, perceived job utility of training, trainees' self- efficacy, expected supervisor's support in transfer of training, and expected work group's support in transfer of training. The respondents were asked to indicate on a 7-point Likert scale which statements applied to them most. It took approximately 10-15 fifteen minutes to complete the questionnaire. The researcher picked up all the questionnaires personally from the training personnel of the participating organizations. In total, four hundred and eighty questionnaires were distributed to sixteen organisations. Two hundred and fifty-two questionnaires were collected back, yielding a response rate of 53%.

Table 3.1 presents the profile of the respondents. The sample was made up of Malaysian citizens of different ethnicity and age group. The responses to the survey revealed a composition of 202 (80.2%) male respondents and 50 (19.8%) female respondents. As to the ethnic composition, the sample was predominantly Chinese (57.1%), followed by Malay (28.2%), Indian (13.1%), and others (1.6%). With respect to the age

profile of the respondents, it ranged from 22 years to 50 years. Almost 50% of the respondents' age ranged from 25 to 34 years.

In terms of education profile, 53.6% had either a diploma or Sijil Tinggi Pelajaran Malaysia (STPM) or Sijil Pelajaran Malaysia (SPM), 40.9% possessed a first degree and 5.6% had Masters degree. Thus, respondents with diploma or high school leavers comprised the largest group in this sample followed by a degree.

Job tenure in current organization ranged from 5 years or less to a maximum of more than 20 years, with a mean of seven years. It was found that 232 (92.1%) respondents had worked with their current supervisor for 5 years or less, 16 (6.3%) worked for 6 years to 10 years, 3 (1.2%) worked for 11 to 15 years and non of respondent worked for the same supervisor for more than 15 years. In their respective organizations, 75% of the respondents occupied three levels of management: low-57.5%, middle-13.5%, high-4.0% and the rest of the 25% were engineers.

All participating organizations are multinational corporations. 168 (66.7%) of the respondents attended 5 or less courses in the past in their current organization, 29 (11.5%) attended 6 to 10 courses, 29 (11.6%) attended 11 to 15 courses, 4 (1.6%) attended 16 to 20 courses and there were 2 (0.8%) respondents attended more than 20 courses in the past.

The training course length ranged from a 4-hour awareness course to a 3-day session. Management related courses were taken by the largest number of participants (68). It followed by team-based training (42) and manufacturing process related courses (38). Statistical process control related courses were taken by 29 participants in two separate classes. Information technology course was taken by 27 participants, followed by company culture related course (24), quality-related course (18) and employee safety related course-chemical hazardous handling (6).

**Table 3.1****Frequency Count and Percentage Distribution of Respondents on Demographics**

<b>Variables</b>	<b>Category</b>	<b>Frequency</b>	<b>Percentage(%)</b>
Gender	Male	202	80.2
	Female	50	19.8
Cultural Background	Malay	71	28.2
	Chinese	144	57.1
	Indian	33	13.1
	Others	4	1.6
Age	Under 25 years	39	15.5
	25-29 years	59	23.4
	30-34 years	64	25.4
	35-39 years	49	19.4
	40 years and above	41	16.3
Education Level	SPM/STPM/Diploma	135	53.6
	Bachelor degree	103	40.9
	Master or PhD	14	5.6
Number of Years With Current Company	5 years or less	131	52.0
	6 – 10 years	57	22.6
	11 – 15 years	24	9.5
	16 – 20 years	30	11.9
	> 20 years	10	4.0
Number of Years With Current Supervisor	5 years or less	232	92.1
	6 – 10 years	16	6.3
	11 – 15 years	3	1.2
	> 15 years	0	0.0
Present Position	Low Level Manager	145	57.5
	Middle Level Manager	34	13.5
	Senior Level Manager	10	4.0
	Others	63	25.0
Number of Courses Attended In The Past	5 courses or less	168	66.7
	6– 10 courses	29	11.5
	11– 15 courses	29	11.5
	16 – 20 courses	4	1.6
	> 20 courses	2	0.8
Training Program Attended	Quality Related	18	7.1
	SPC Related	29	11.5
	Safety/Environment	6	2.4
	IT	27	10.7
	Management	68	27.0
	Team-Based	42	16.7
	Manufacturing Process	38	15.1
	Company Culture	24	9.5
Training Duration	4 hours	53	21.0
	8 hours (1 day)	123	48.8
	16 hours (2 days)	66	226.2
	24 hours (3 days)	10	4.0

**3.4 Instruments**

Six measures in a questionnaire were constructed for the study. It is shown in Table 3.2.

**Table 3.2**

**Distribution of Questionnaires Items**

<i>Section</i>	<i>Scale</i>	<i>No. of Item</i>	<i>Item No.</i>
1	Learning Motivation	7	1 to 7
2	Perceived Job Utility of Training	7	8 to 14
3	Self-Efficacy	9	15 to 23
4	Supervisor's Support in Transfer of Training	6	24 to 29
5	Work Group's Support in Transfer of Training	4	30 to 33
6	Personal Data	8	1 to 8

All items were rated on 7-point Likert-type scales, the degree of agreement and disagreement with each item, anchored by 1 = strongly disagree, 2 = disagree, 3 = slightly disagree, 4 = neutral, 5 = slightly agree, 6 = agree and 7 = strongly agree. All items were scored so that high scores represent high levels of the construct. Each instrument is described below.

*3.4.1 Training Motivation*

A 7-item scale was used to assess learning motivation. These items measured the intention to learn the course material, put forth effort to learn and complete assignments, eagerness to attend course, give attention, learn new ways of doing things and get actively involved in the course. These items were based on previous research carried out by Gregory and Catherine (1993). The internal consistency reliability of the scale had been found to be .86 (Gregory & Catherine 1993).

*3.4.2 Perceived Job Utility of Training*

Job utility was measured by 7 items that assessed the extent to which the training course was expected to facilitate goal attainment for the current job. Respondents responded to statement such as "I believe that training will help me improve performance in my current job". It was constructed by Gregory and Catherine (1993). The scale was reported to be reliable with coefficients alpha of .84.

### *3.4.3 Self-Efficacy*

Self-efficacy was measured by ten-item General Self-Efficacy Scale which nine items were adapted in this study except item number 5, "Thanks to my resourcefulness, I know how to handle unforeseen situations" which was deemed not relevant by the researcher in this study. Jerusalem and Schwarzer (1992) originally developed the scale in 1981 as a 20-item version and later as a reduced 10-item version. The typical item is "When I am confronted with a problem, I can usually find several solutions." It has been used in numerous research studies (Schwarzer, 1993; Schwarzer & Jerusalem, 1995).

### *3.4.4 Supervisor's Support in Transfer of Training*

The assessment of supervisor's support in transfer of training was obtained using a 6-item scale (Items 24 to 29 of Section 4) drawn from the work of Gregory and Catherine (1993). The items focused on the extent to which the trainees believed that their supervisors would be patient when they tried out new knowledge and skills. The internal consistency reliability of the scale had been found to be .82 (Gregory & Catherine 1993).

### *3.4.5 Work Group's Support in Transfer of Training*

It is a 4-item measure to assess the expected work group's support for using the training in the work setting. These items focused on the support that the individual expected from co-workers when he or she returned from training such as tolerance for mistakes, cooperation, and patience of trying out new skills. The questions were constructed and used in Gregory



and Catherine's survey (1993), too. The internal consistency reliability of the scale was as high as .75 (Gregory & Catherine 1993).

#### *3.4.6 Personal Data*

Section 6 required respondents to write or tick in the space provided. It consists of 10 items to measure the respondents' personal profile and demographics including gender, ethnic, age, academic achievement, length of service, number of years worked with the current supervisor, job level, and training program attended.

### **3.5 Statistical Analyses**

Data collected were analyzed using SPSS. The analysis was conducted in 4 stages. Stage 1 focused on the respondents' overall profile. Descriptive statistics such as means, standard deviations, frequency and percentages were used to analyze respondents' profile which was presented in Table 3.1.

In stage 2, factor analysis was performed to establish the goodness of measure for the scales to be used in hypotheses testing. Four analyses were performed separately, one each for learning motivation, perceived job utility of training and self-efficacy. Supervisor's support in transfer of training and work group's support in transfer of training were performed as one. A varimax rotated principal components factor analysis on the items responses was used.

The factors which had eigenvalues more than or equal to 1.00 were selected. Items in a factor were retained only when factor loadings were greater than or equal to 0.5 and cross-loadings with the other factors generally smaller than 0.30. The factors and their corresponding items selected were then grouped and renamed accordingly. Cronbach alpha coefficients were used to test the reliability of each factor. The means, standard deviations and intercorrelations among all study variables were computed to see the variability and interdependence of the subscales.