

SELF DIRECTED WORK TEAM'S EFFECTIVENESS: THE IMPACT OF TEAM  
CHARACTERISTICS AND TEAM TASK DESIGN

by

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## *DEDICATIONS*

*To my mother, brother, and sisters, for their unconditional love and support*

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## **ABSTRAK**

Penggunaan Pasukan Urus Diri dalam organisasi pengeluaran bertambah pesat dalam menghadapi persaingan yang mencabar. Kajian ini bertujuan untuk membekalkan bukti empirik mengenai hubungan di antara Ciri Pasukan (Komposisi Pasukan, Kepercayaan Pasukan, Proses Pasukan dan Kestabilan Pasukan), Reka Bentuk Tugas Pasukan dan Makna Tugas Pasukan dengan Keberkesanan Pasukan Urus Diri (Hasil Pasukan Urus Diri dan Kualiti Kehidupan Kerja anggotanya). Ia juga mengkaji sama ada Ketersediaan Sumber dan Ukuran Hasil Pasukan dan Ganjaran mempunyai kesan terhadap hubungan ini. Dua ratus dan lima puluh enam anggota Pasukan Urus Diri dari tujuh organisasi pengeluaran di sekitar Pulau Pinang mengambil bahagian dalam kajian ini. Regresi berganda digunakan untuk menguji hubungan di antara pembolehubah bebas dan pembolehubah bersandar. Regresi berhirarki digunakan untuk menguji kesan pendeta. Keputusan kajian ini menyokong bahawa Komposisi Pasukan dan Kepercayaan Pasukan mempengaruhi keberkesanan Pasukan Urus Diri. Kajian ini juga menyokong separuh andaian penyelidikan yang menyatakan hubungan di antara Reka Bentuk Tugas Pasukan dan Makna Tugas Pasukan dengan Keberkesanan Pasukan Urus Diri. Tetapi, Proses Pasukan dan Kestabilan Pasukan tidak mempunyai pengaruh ke atas Keberkesanan Pasukan Urus Diri. Ia juga mendapati bahawa Ketersediaan Sumber mempengaruhi hubungan di antara pembolehubah bebas dan pembolehubah bersandar manakala Ukuran Hasil Pasukan dan Ganjaran tidak disokong dalam kajian ini. Kajian ini membekalkan beberapa implikasi kepada individu yang melibatkan diri dan mengamalkan Pasukan Urus Diri dalam bidang mereka bentuk dan memajukan Pasukan Urus Diri.

## **ABSTRACT**

The use of Self Directed Work Team in manufacturing organizations has increased in response to competitive challenges. The present study attempts to provide empirical evidence on the relationship between Team Characteristics (Team Composition, Team Beliefs, Team Process and Team Stability), Team Task Design and Team Task Meaningfulness with Self Directed Work Team's effectiveness (Self Directed Work Team's performance and the team member's Quality of Work Life). It also explores whether Availability of Resources and Measure of Team Performance and Rewards moderate the said relationships. Two hundred and fifty six Self Directed Work Team's members from seven manufacturing organizations in Penang participated in this study. Multiple regression were used to examine the relationship between independent and dependent variables. Hierarchical regression were used to test the moderators' effect. The findings showed that Team Composition and Team Beliefs have a significant impact on Self Directed Work Team's effectiveness. Hypotheses on relationship between Team Task Design and Team Task Meaningfulness with Self Directed Work Team's effectiveness were partially supported. However, Team Process and Team Stability have no significant influence on Self Directed Work Team's effectiveness. It was also found that Availability of Resources moderated the relationship between the independent variables and dependent variables whereas Measure of Team Performance and Rewards was not supported in this study. This study provides several implications to individuals who are involved and practice Self Directed Work Teams in the area of designing and developing Self Directed Work Teams.

## CHAPTER 1

### INTRODUCTION

#### 1.0 Introduction

Over the past decade, many manufacturing organizations all over the world have been changing their working structures from traditional hierarchical pyramid structure to a flatter and leaner structure. Thus, teamwork and employee participation became a crucial task for managers in all types of industries (Clifford & Amrik, 1998). Work teams were commonly used in both manufacturing and service industries (Cohen, Ledford & Gerald, 1994; Cohen, Ledford & Spreitzer, 1996). The use of Self Directed Work Team or Self Managing Work Team in the electronics manufacturing industry in the United Kingdom and the United States had developed significantly over the 1980s and 1990s. There is no doubt that the movement towards more flexible forms of work organization, such as Self Directed Work Team can be applied in technically complex organizational areas (McCalman, 1998). Self Directed Work Teams or Self Managing Work Teams are seen as a solution for organizational problems and are often introduced with the objective of simultaneously improving an organization's productivity, as well as employees' Quality of Working Life (Cohen et al., 1996, Cohen et al., 1994, Manz, 1992 as cited in Hut & Eric, 1998). In addition, Self-Directed Work Teams are often viewed as effective tools to handle the flexibility and rapidly changing environmental needs and demands that manufacturing companies face nowadays (Jong, Ruyter & Sandra, 2001).

Manufacturing organizations are trying to develop more flexible team-oriented work. Several surveys in the United State have shown that the number of employees in manufacturing organizations who work in Self Directed Work Teams have increased from 2 percent in 1986 to 32 percent in 1992 (Appelbaum & Batt, 1995 as

cited in Leede & Stoker, 1999). Manz and Stewart (1997) estimate this figure will increase to 50 percent in the year 2000 (Leede & Stoker, 1999). Furthermore, based on the research of multiple case studies from 11 Dutch manufacturing companies, the most important factor for introducing Self Directed Work Team was driven by economic reasons. The respondents claimed that their working efficiency have to be improved. Six out of 11 companies mentioned that they also need to improve their working life (Leede & Stoker, 1999).

Although there is a clear need to further determine the benefits that have been derived from team applications in practice, research is also needed to examine the effectiveness of Self Directed Work Teams especially in multinational manufacturing organizations in Penang, Malaysia. Cohen et al. (1996) proposed and tested a Self Directed Work Team's effectiveness framework that included four categories: Team Task Design, Team Characteristics, Employee Involvement and Supervisory Behaviors. Results suggested that Team Task Design, Team Characteristics and Employee Involvement are strongly related to Self Directed Work Team's effectiveness. Besides the above three factors, Availability of Resources, Measure of Team Performance and Rewards are also included in this study.

## **1.2 Problem Statement**

In order to maintain or gain competitive advantage of multinational manufacturing organizations in the dynamic business environment in Penang, the role of productive workforce is undoubtedly the key driver towards creating a positive impact on business performance. Implementation of Self Directed Work Teams will fail without a proper measure to determine their performance and effectiveness. Delegation of authority to Self Directed Work Team is insufficient to make them effective (Leede &

Stoker, 1999). In-depth understanding on the factors that influence the successful implementation of Self Directed Work Team is critical to ensure high performance and create an effective Self Directed Work Team. Hence, a study to determine the factors that influence Self-Directed Work Team's effectiveness in multinational manufacturing organizations in Penang was undertaken. The study involved a collection of opinions from Self Directed Work Team's members from multinational manufacturing organizations through out Penang in regards to Team Task Design, Team Characteristics (Team Composition, Team Beliefs and Team Process), Availability of Resources and Team Performance Measure and Rewards which contribute towards the effectiveness of Self Directed Work Teams in their organizations.

### **1.3 Research Objectives**

The objective of this study is to develop a better understanding of the effects of Team Characteristic (Team Composition, Team Beliefs and Team Process) and Team Task Design towards Self Directed Work Team's effectiveness (Self Directed Work Team's performance and Self Directed Work Team member's Quality of Work Life). Opinions gathered from organizations include an overview on the success in implementation of Self-Directed Work Teams by management personnel in multinational manufacturing organizations in Penang. This study is also intended to examine the effect of external factors such as Availability of Resources and Measure of Team Performance and Rewards towards the Self Directed Work Team's effectiveness. This particular study also aimed at assisting management in manufacturing organizations in their effort to successfully improve their

organization's productivity, product quality and quality of employee work life through implementation of Self Directed Work Teams.

#### **1.4 Research Questions**

The questions formulated for the purpose of this research are as follow:

- (1) Does Team Characteristics (Team Composition, Team Beliefs and Team Process) and Team Task Design affect the effectiveness of Self Directed Work Team (Self Directed Work Team's performance and member's Quality of Work Life)?
- (2) Does Availability of Resources moderate the relationship between Team Characteristics (Team Composition, Team Beliefs and Team Process), Team Task Design and Self Directed Work Team's effectiveness?
- (3) Does Measure of Team Performance and Rewards moderate the relationship between Team Characteristics (Team Composition, Team Beliefs and Team Process), Team Task Design and the effectiveness of Self Directed Work Teams?

#### **1.6 Significance of the Study**

This study will provide an in-depth understanding of the influences which Team Characteristics (Team Composition, Team Beliefs and Team Process) and Team Task Design have on the effectiveness of Self Directed Work Teams (Self Directed Work Team's performance and Self Directed Work Team member's Quality of Work Life). Self Directed Work Team's practitioners will gain benefits from this study in terms of improving their team (s) performance and their team member's quality of work life by considering the internal Team Characteristic and Team Task Design.

Besides, this study might also trigger individuals who are involved and practicing Self Directed Work Teams awareness on the importance of Availability of

Resources and Measure of Team Performance and Rewards to the effectiveness of Self Directed Work Team. In addition, it is expected that by providing feedback on factors which are important to manufacturing organizations through this proposal of study, it will facilitate the implementation of Self Directed Work Teams in the organizations. It is further expected that it will benefit manufacturing organizations in facing with barriers, resulting in a long-term successful implementation plan.

Fzlinda (2004) carried out a study on the relationship between Team Properties and Team Performance in manufacturing organizations in Penang. Koay (2003) performed a study on Virtual Team in manufacturing organizations in Penang. There is on similar study done pertaining to Team Characteristic, Team Task Design and Self Directed Work Team's effectiveness, this study will also contribute to the limited literature in the Malaysian context. Furthermore, most of the past research in the study of Self Directed Work Team's effectiveness has been conducted in a Western setting; behaviors in Asia countries might be different with those from West.

### **1.7 Definition of Key Terms**

In order to support the understanding of this study, conceptual definition of key terms from all the study variables needs to be clarified. The following shows the definition of key terms and the sources of the definition.

*Team Composition* – Team Composition refers to the nature and attributes of team members (Guzzo & Dickson, 1996). Team Composition is a combination of team expertise, team size adequacy and team stability (Cohen et al., 1996).

*Team Beliefs* – Team Beliefs refers to team member's beliefs about whether they can successfully execute some future tasks, actions or achieve some results (Pierce & Gardner, 2002). It is a shared belief among team members that they can be effective (Bandura, 1982, as cited in Cohen et al., 1996)

*Team Process* – Team Process reflects the nature of team's functioning and can be captured by constructs such as workload sharing, voice and cooperation (Amir, Jeffrey & Heather, 2002). Team Process also refers to how team members interact as they do their work. This involves team members working together without duplicating or wasting efforts and designing team activities to invent and implement better ways of doing their tasks (Cohen et al., 1996)

*Team Task Design* – Team Task Design refers to how tasks are combined to form a job. It is the formal and informal specification of the task-related activities assigned to and carried out by team members (Pierce & Gardner, 2002).

*Availability of Resources* – Availability of resources refers to whether the organizations provide sufficient means to the teams such as information, financial, equipment and time to facilitate the decision makers acting in a responsible way (Leede, Nijhof & Fisscher, 1999).

*Measure of Team Performance and Rewards* – It refers to the compensation given to the team or team members after considering the extent of team performance. (Yeatts, Hyten & Barnes, 1996).



*Self Directed Work Team* – Self Directed Work Team is defined as groups of employees who work interdependently and have responsibility for planning, organizing and scheduling their own work, making decisions and taking actions to remedy problems (Wellins, 1990, as cited in Linda, 2001). It is also defined as small groups of employees who are responsible for producing an entire product or product segment and for managing themselves and the work that they do (Sprague, 1992).

*Self Directed Work Team's Performance* – Defined as the combination effect of quality performance, productivity performance, costs and safety (Cohen et al., 1996).

*Self Directed Work Team Member's Quality of Work Life* – Defined as the combination of SDWT member's job satisfaction, growth needs satisfaction, social needs satisfaction, group satisfaction, organizational commitment and trust (Cohen et al., 1996).

*Self Directed Work Team's Effectiveness* - Self Directed Work Team's Effectiveness is defined in terms of performance effectiveness (e.g., controlling cost, improving productivity and quality), employee attitudes about their Quality of Work Life (e.g., job satisfaction and organization commitment) (Cohen et al., 1996)

## **1.8 Organization of Chapters**

Chapter 1 presents the overview and the direction of this study. It highlights the background of this study, problem statements, research objectives and the purpose of conducting this study. Chapter 2 shows relevant theories and literature from past research in order to strengthen the framework of this study. The review will cover the

topics of Team Composition, Team Beliefs, Team Process, Team Task Design, availability of resources, Self Directed Work Team's performance and SDWT member's Quality of Work Life. Chapter 3 presents the methodology, detailing the research site, sampling procedures, measurement instrument used for each construct in the framework, and proposes the types of statistical analyses to be employed for this study. Chapter 4 presents the statistical analyses and tabulates the findings of this study. Lastly, chapter 5 concludes findings from this study with discussions and implications of this study. Chapter 5 also shows the limitations of the study and suggestions for future research.

## **CHAPTER 2**

### **REVIEW OF RELATED LITERATURE**

#### **2.1 Introduction**

In the late 1990s, one of the criteria for organizational success is the use of teams. Self Directed Work Teams are being used as an approach of achieving employee participation as well as getting closer to customer (Steven, Chahrazad & Barbara, 1999). The implementation of Self Directed Work Teams has been soared as manufacturing organization's response to competitive challenges in the current business environment. Manufacturing organizations are replacing the whole layers of management with implemented Self Directed Work Teams as a substitute for hierarchy. The Center for Effective Organization's study of Fortune 1000 companies found out that 27 percent of firms in 1987, 47 percent in 1990 and 69 percent in 1993 used Self Directed Work Teams with at least some percentage of their employees. Most manufacturing organization which uses Self Directed Work Teams reported to be successful and they plan to expand their use in the coming year (Lawler, Mohrman & Ledford, 1995).

#### **2.2 Definition of Self-Directed Work Team**

Self Directed Work Teams (SDWT) are groups of interdependent individuals that can self-regulate their behavior in relative to their tasks (Goodman, Devadas & Hughson, 1988). Self Directed Work Teams are an attractive organizational form because the teams offer a means of increasing employee involvement. Employee involvement is one dimension of work life quality that managers and workers attempt to enhance. At the same time, the teams are empowered to respond rapidly and resourcefully to the

needs of its customers (Sprague, 1992). Self Directed Work Teams can be defined as teams that consistently satisfy the needs its of customers, employees, investors and others in its area of influence and as a result these teams frequently outperform other teams that produce similar products and services under similar conditions and constraints (Kur, 1996). Wellins, Byham and Wilson (1991) defined Self Directed Work Team as an intact group of employees, who are responsible for a whole process or segment, which delivers a product or service to an internal and external customer. In the case of Self Directed Work Teams, the relationship between the team and organization is different. Members of SDWTs have a responsibility for managing themselves and their work. Team members learn multiple tasks that were once exclusively related to supervisors and managers (Steven, Chahrazad & Barbara, 1999).

### **2.3 Differences Between Teams and Groups**

Social psychologists and those contributing to the small-group literature commonly define a group as two or more people who interact to achieve a common objective. A group is a number of individuals assembled together or having some unifying relationship. Thus, groups are seen as living, self-regulating systems that sense and interact with their environments (Pierce & Gardner, 2001). Team is a collection of individuals who are interdependent in their tasks, who share responsibility for outcomes, who see themselves and who are seen by others as an intact social entity embedded in one or larger social systems and who manage their relationships across organizational boundaries (Pierce & Gardner, 2001). In a study by Fisher, Hunter and Macrosson (1997), the description concerning the variables “creative”, “innovative”

and “well rounded” are only applied to teams while “negotiating”, “networking”, “persuasive” and “the sum of individual goals” are applied only to groups.

#### **2.4 Differences Between Self Directed Work Team and Traditional Work Team**

A key difference between a traditional work team and a Self Directed Work Team is the level of interdependence (Umiker, 1996 as cited in Beckham, 1998). According to Beckham (1998), a traditional team takes responsibility only for results derived from individual efforts, so the team’s end products represent only the sum total of these efforts while a Self Directed Work Team demands both individual and mutual accountability which requires a common commitment. Also, in a Self Directed Work Team, each person accepts a broader range of duties than were encompassed in the old job structure. Various researchers (Beckham, 1998; Cohen, Ledford & Spreitzer, 1996; Leede & Stoker, 1999; Manz & Sims, 1993; Neck, Connerley, Zuniga & Sanjay, 1999; Singer & Duvall, 2000) have described and differentiated the characteristics of Self Directed Work Team or Self Managing Work team. These characteristics distinguish Self Directed Work Team from other forms of traditional teams such as intra-functional teams, problem solving teams and cross-functional teams. The characteristics of the teams are summarized as follows:

- (a) Task assignment. Employees perform interdependent tasks and are responsible for making a product or providing a service.
- (b) Decision making autonomy. Employees have discretion over decisions traditionally made by management such as assigning members to various tasks, solving within-team quality and interpersonal problems and conducting team meetings; employees are responsible for regulating their own goals and objectives, obtaining performance feedback and making necessary correction.

- (c) Skill requirement. Team members possess the variety of skills necessary to complete the product or perform the service and thus limit dependence on external resources for task performance.
- (d) Compensation and performance feedback. Employees are usually compensated for the skills they perform, team output (productivity) is rewarded at group level and performance feedback is given to the team as a whole.
- (e) Supervision of the team. Managers of Self Directed Work Team are facilitators as opposed to hierarchical, top-down primary decision makers due to the nature of these forms of work teams.

## **2.5 Delegation of Decision Making Process**

Following the Self Directed Work Teams literature, it has been noticed that by devolving decision making to employees or teams of employees, operating problems can be responded rapidly and effectively. This will minimize the impact of operating problems towards overall system performance (Wall, Kemp, Jackson & Clegg, 1986). According to Wall et al. (1986), devolving decision-making process to employees seems more effective, since a manager alone will not be able to process all the necessary information and make appropriate decisions. One advantage of a Self Directed Work Team or Self Managing Work Team is that all team members are involved in decision making so that a variety of ideas can be applied to a problem and those team members most experienced with the problem can have the most input prior to a solution being selected (Yeatts, Hyten & Barnes, 1996). Based on a finding done by Yeatts et al. (1996), no single person dominates the decision making process and

all decisions are made by a consensus or by a majority vote. This results in team members feeling responsible and committed to the decisions they have made.

## **2.6 Definition of Empowerment**

Empowerment has been collectively defined as the process of giving employees the authority to take decisions which relates to their work processes and functions. They are however confined within the limits provided by the management which requires them to assume full responsibility and risk for their action (Nesan & Holt, 1999). However, empowerment is not an act or physical incident. It is the employees' perception that they believe in their empowerment and are able to control whatever happens to their work processes efficiently and effectively (Holt, Love & Nesan, 2000). Empowerment generally includes pushing decision making down to the lowest level in the organization to the most qualified people who can make the decision (William, Michele & Pamela, 2002). One particularly significant emotional effect that often results from delegation is the empowerment of team members. Empowerment is the result of a process that enhances feeling of self-efficacy among organizational members, enabling them to feel as though they can perform their work effectively and that they are responsible of doing so. Empowerment is an intrinsic motivational state that manifests itself when the organizational member experiences the following cognitive stage (Jong, Ruyter & Sandra, 2001):

- (a) Experiencing a meaning in one's work
- (b) Having a belief in one's capacity to perform (feeling competent or experiencing self-efficacy)
- (c) Experiencing a sense of choice (self-determination or autonomy) in initiating and regulating one's activities

(d) Feeling as though as one has an impact upon what happens.

There are many ways to make employees feel like important, contributing members of the organization. Giving employees both the information and the authority to make decisions on their jobs benefits the organization. In successful high-involvement programs, employees are empowered, psychologically involved and committed to the organization (Jong et al., 2001).

## **2.7 Definition of Team Member's Perception on Self-Directed Work Team's Effectiveness**

Steven et al. (1999) used Hackman's model of work group effectiveness in the study of important management factors to the success of Self Directed Work Team. The main concept of this model is three activities which are namely effort, knowledge and appropriateness of the task performance strategies. According to Hackman, an increase in these three activities should improve the overall effectiveness of the group. The basic strategies to change the process effectiveness are group design, organizational context and group synergy. Figure 2.1 presents the main concept of Hackman's model.

A common approach to measure the impact of group is to evaluate their effectiveness. Group effectiveness is defined by Hackman (1991) as performance and employee satisfaction. More specifically, according to Hackman, group effectiveness is the degree to which (Beckham, 1998):

- (a) The group's output meets requirements in term of quantity, quality and timeliness.
- (b) The group experience improves its members' ability to work as a group in the future.



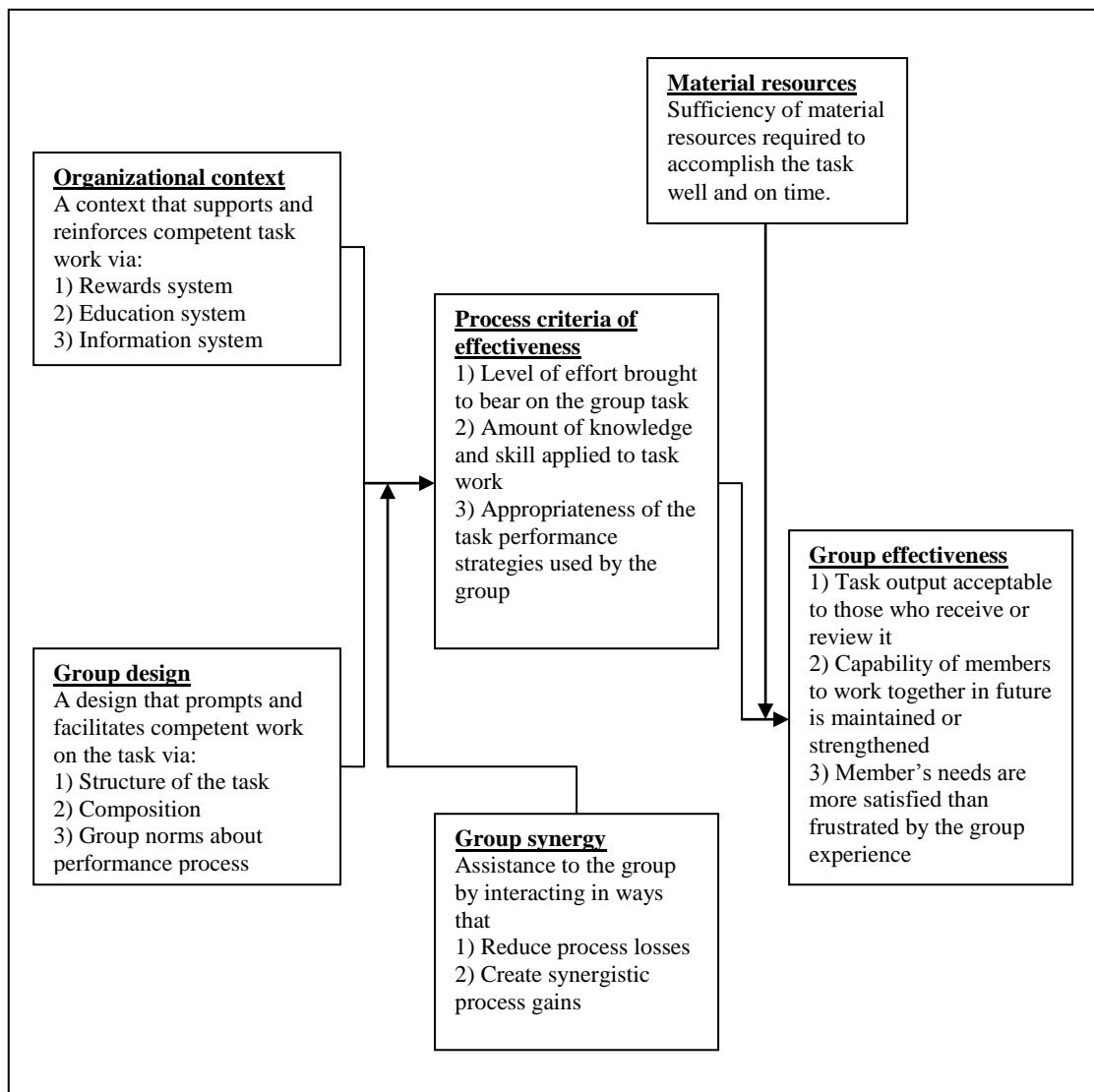


Figure 2.1. Hackman's model of work group effectiveness.

(c) The group experience contributes to individual satisfaction.

Self Directed Work Team's Effectiveness is defined in terms of performance effectiveness examples such as controlling cost, improving productivity and quality, employee attitudes about their Quality of Work Life. These criteria are derived from group effectiveness theories, socio-technical theory and the empirical work on Quality of Work Life as well as Self Directed Work Team's effectiveness (Cohen et al., 1996). Cohen et al. (1996, 1994) conceptualized Self Directed Work Team's effectiveness as a combination of Self Directed Work Team's performance and its

member's Quality of Work Life. A Self Directed Work Team can be considered effective when this particular team achieves high level of performance in terms of productivity, quality as well as being cost-efficient. At the same time, team member enjoy good quality of work life in terms of job satisfaction, growth needs satisfaction, social needs satisfaction, group satisfaction, organization commitment and trust (Cohen et al., 1996; Cohen et al., 1994). According to Amir, Jeffrey & Heather (2002), the effectiveness of Self Directed Work Team can be determined from team performance and team member satisfaction which will indirectly reflect their quality of work life. Since many of the efforts to implement teams will lead to job enrichment and improved workers satisfaction, researchers (Wall, Kemp, Jackson & Clegg, 1986) link the Self Directed Work Team concept to Self Directed Work Team member's Quality of Work Life.

## **2.8 Determinants of Self-Directed Work Team's Effectiveness in Manufacturing Organizations in Penang**

Self Directed Work Team's effectiveness is defined in terms of performance effectiveness (e.g., controlling cost, improving productivity and quality) and employee attitudes about their quality of work life (e.g., job satisfaction, organization commitment (Cohen et al., 1996). A research on 69 Self Directed Work Teams pertaining to their effectiveness was done by Cohen et al. (1996). According to the Cohen's et al. (1996) predictive model for Self Directed Work Team's effectiveness, Team Task Design, Team Characteristics (Team Composition, Team beliefs and Team Process) and employee involvement (Availability of Resources and Measure of Team Performance and Rewards) are found to have a significant relationship to Self Directed Work Team's effectiveness.

### ***2.8.1 Team Composition***

Team Composition refers to the nature and attributes of team members (Guzzo & Dickson, 1996). Team Composition is a combination of team expertise, team size adequacy and team stability (Cohen et al., 1996). A case study by Wellins (1992) in an American company, organizations that are moving to Self Directed Work Teams must select workforces that are equipped with sufficient competencies, skills and values necessary in a high involvement organization. Therefore, a good selection system for Self Directed Work Team's members should be in place (Wellins, 1992). Furthermore, Cohen, Ledford and Spreitzer (1996) studies on 69 Self Directed Work Teams in a telephone company showed that Team Composition has significant impact on Self Directed Work Team's effectiveness. The composition variables in their studies are group expertise, group size adequacy and group stability. Group expertise refers to the right mix of people with task-relevant knowledge and skills, which clearly should contribute to Self Directed Work Team's effectiveness. Group size adequacy refers to Self Directed Work Team that has the appropriate number of members to do the task well. The group's size should be the smallest number needed because additional people are expected to results in higher coordination costs and process losses. Group stability refers to the continuity of group membership. If members from a Self Directed Work Team face turnovers frequently, considerable time is lost orienting new members to technical requirements and the way that the group works together. The lost time may interface with effective Self Directed Work Team's performance.

On the other hand, a study on 80 work teams in a financial services firm that relates to team effectiveness and Team Composition was reported by Campion, Medsker and Higgs (1993). Their study found team size to be positively related to

effectiveness and found that heterogeneity of members' background and expertise to be unrelated or negatively related to team effectiveness.

### ***2.8.2 Team Beliefs***

Cohen et al. (1996) derived group beliefs as the activities of shared beliefs by group members about their group which includes group norms and group self-efficacy. Self-efficacy is the team member's belief about whether their team can successfully execute some future action or tasks. High self-efficacy team members believe that they are likely to succeed at most of their job duties and responsibilities (Pierce & Gardner, 2001). Some evidence suggests that group self-efficacy is related to Self Directed Work Team's effectiveness (Cohen & Denison, 1990; Larson & Lefasto, 1989 as cited in Cohen et al., 1996). Group norms are a form of expectations with regards to the behavior of its team members. They are a set of informal rules and values that guide the team member's behavior and define the boundaries of acceptable and unacceptable behavior (Pierce & Gardner, 2001). A norm is well crystallized when there is a high degree of agreement among group members about the amount of approval or disapproval associated with particular behaviors thus encouraging team performance (Jackson, 1965 as cited in Cohen et al., 1996). Besides, level of Team Beliefs is related to how much effort the team exerts because Team Beliefs signals what a team thinks it can do (Gibson, 2001). According to Gibson (2001), levels of Team Beliefs vary even among teams that appear to have equal skills, abilities and resources. These beliefs may differ because the process of forming the beliefs is impacted by a variety of contextual factors, including the amount of information they have about their task, different processes of sharing this information, different level of commitment and identification among team members. Thus, teams that look similar in

many aspects may form different beliefs about their teams' ability. In one of the studies by Gibson (2001) on nurses from hospitals, self-efficacy was positively related to individual effectiveness and Team Beliefs was positively related to team effectiveness.

### **2.8.3 Team Process**

Group process refers to how team members interact as they do their work (Cohen et al., 1996). Group process consist of group coordination and group innovation processes. Group coordination involves group members working together without duplicating or wasting efforts and doing so with team spirit and energy. Self-management depends upon effective coordination and team spirit which may encourage effective performance of a team (Cohen et al., 1996). Group innovation processes are the group activities designed to invent and implement new and better ways of doing their tasks. Self Directed Work Team effectiveness may depend upon the group's ability to innovate and come up with new solutions that addresses changing task demands (Cohen et al., 1994, Cohen et al., 1996). In a study by Cohen et al. (1996) on 69 Self Directed Work Teams from an American telephone company, Team Process was significantly related to Self Directed Work Team's effectiveness. In addition, Team Processes reflect the nature of the team's functions, and can be captured by constructs such as workload sharing, voice and cooperation (Amir, Jeffery & Heather, 2002). Amir's et al. (2002) study on 38 self-managed undergraduate teams found that Team Process play an important role in Self Directed Work Team's effectiveness. Empirical literature also suggests that cooperation and team member satisfaction are positively related and the relationship may be stronger

in teams that do complex knowledge work than in teams that do other types of work (Campion, Medsker & Higgs, 1993).

#### ***2.8.4 Team Task Design***

According to Hackman and Oldham's model, there are five core task characteristics which are of primary importance to a task design namely skill variety, task identity, task significance, task autonomy and task feedback (Pierce & Gardner, 2001). Group task variety is defined as the degree to which the job requires performing a variety of different activities using different skills and talents (Pierce & Gardner, 2001; William et al., 2002). Team task variety motivates team members by allowing them to learn and use different skills (Spreitzer et al., 1999). Group task identity is defined as the degree to which the task entails completing a whole piece of work (Pierce & Gardner, 2001; William et al., 2002). It helps the team to self-regulate its activities by allowing members to control technical variances within team boundaries (Cummings, 1978). Team task identity motivates by encouraging a sense of collective responsibility for completing the whole piece of work (Spreitzer et al., 1999). Group task significance refers to motivation of team members by enabling them to care about the important work they perform. In such a situation, they are more likely to cooperate with one another (Hackman & Oldman, 1987, Spreitzer et al., 1999). Group task autonomy refers to the degree to which the task provides substantial freedom, independence and discretion to an individual both in scheduling the work and in determining the procedures used to complete it (Pierce & Gardner, 2001; William et al., 2002). Group task autonomy increases ownership and a sense of responsibility, which motivates effective performance. Autonomy also enables group members to effectively deal with tasks and environmental demands by making

decisions in the process of doing the work (Spreitzer et al., 1999). Group task feedback provides knowledge of the results of work activities which builds internal work motivation. It also enables team members to monitor their activities and make improvements in response to performance situations (Hackman & Oldman, 1987; Pasmore, 1988 as cited in Cohen et al., 1996).

In a study by Amir, Jeffrey and Heather (2002) on 38 self-managed undergraduate teams suggested that Team Task Design may have important impact on the Self Directed Work Team's functioning and effectiveness. Besides, both work design and sociotechnical theory point to task design as contributing to Self Directed Work Team's effectiveness (Spreitzer, Cohen & Ledford, 1999). Research carried out by Spreitzer et al. (1999) in 2 service organizations found that Team Task Design was an important predictor of Self Directed Work Team's effectiveness. In addition, researchers (Hackman & Lawler, 1971; Hackman & Oldman, 1976) also proved that task design will contribute to Self Directed Work Team effectiveness. Team Task Designs are viewed as contributing to Self Directed Work Team's effectiveness as a result of their impact on motivation and self-regulation in accordance to the work design theory and socio-technical theory (Cohen et al., 1996). In a study by Cohen et al. (1996) in 69 Self Directed Work Teams in an American telephone company, Team Task Design proved to be positively related to Self Directed Work Team's effectiveness. A Self Directed Work Team requires work that is designed to be done by the team. That is, basic elements of the work should require members to work together to complete significant tasks (Ruth, 1997).

### **2.8.5 Availability of Resources**

Gladstein (1984) suggested that the organizational context can be a stronger determination of Self Directed Work Team's effectiveness than internal team processes. In the Hackman's model of work group effectiveness, sufficiency of material resources is necessary to accomplish the task well and on time (Steve, Chahrazad & Barbara, 1999). Besides, the precondition that determines the effectiveness of Self-Directed Work Teams implementation is especially influenced by the Availability of Resources (Leede, Hijhof & Fisscher, 1999). The main question here is whether the organization has provided enough means to facilitate the decision-makers acting in a responsible way (situation-related). According to Leede et al. (1999), the means to act can be divided into four categories such as information, money, existing workforce and time. First of all, the team needs to have access to the relevant information. In order to consider all the aspects involved, it is necessary to know the situation, to know the alternatives and to have knowledge of the possible consequences and the risks related to implementation of self-directed work teams in manufacturing organizations. A second important means is the availability of sufficient financial resources. In team decision-making, the employees should have a sufficient budget to choose the most responsible alternative. If an organization does not allocate adequate resources to follow up the most responsible alternative, then responsibility for the final decision should also be placed partly on the organization. Thirdly, if workforce in the teams or organizations is not adequate, it might prove impossible for the self-managed teams to act in a responsible way. Finally, the availability of time is the fourth resource that should be addressed in order to be able to allocate full responsibility. The division of tasks, authorities and responsibilities



can all be adequately arranged, but if employees do not have enough time to fulfill their tasks, then it is not fair to make them fully responsible (Leede et al., 1999).

In addition, any necessary resources that may help the team to achieve their potential should be made available. The nature of the resources could be tangible or intangible such as time, money and training (Irani, Choudrie, Love & Gunasekaran 2002). According to these researchers, the provision of such resources should aid the Self Directed Work Teams to achieve their task objectives and foster team bonding. A case study by Irani et al. (2002) in a UK based company, Neptune (UK) Ltd., found Availability of Resources is necessary for Self Directed Work Teams to accomplish their tasks. Furthermore, according to Cohen et al. (1996), providing sufficient resources such as equipment, space, tools and materials permit employees to accomplish their work, thus enhance Self Directed Work Team effectiveness. A research in 69 Self Directed Work Teams in an American telephone company found Availability of Resources has a significant impact on Self Directed Work Team's effectiveness (Cohen et al., 1996).

#### ***2.8.6 Measure of Team Performance and Rewards***

Major changes in recognition and reward systems are often needed for successful team-building initiatives (Beckham, 1998). According to Beckham (1998), the methods by which performance is evaluated and rewarded are the primary factors affecting employee's values and beliefs. In Yeatts' et al. (1996) research on the factors that determine successful Self Directed Work Team, creates a direct link between an employee's pay and team performance and this can encourage teamwork. Furthermore, Self Directed Work Team's performance evaluations can be a channel to encourage team members to put the team first rather than themselves. In the case of

the Self Directed Work Team in Harley Davidson Corporation, there is a certain team performance measure known as balance scorecard, which must be established by each group and this is their basis for their performance (Singer and Duvall, 2000). The high visibility of scorecard results forces individual team members to accept accountability for their team performance. Employee satisfaction and empowerment at Harley Davidson are at record levels as well as improved customers' satisfaction level (Singer & Duvall, 2000). In Cohen's et al. (1996) Predictive Model of Self Directed Work Team's effectiveness, rewards must be tied to performance and development of Self Directed Work Team. Through rewards, it enhances employee involvement thus increasing the Self Directed Work Team's effectiveness.

Besides, all improvement activities especially by Self Directed Work Teams must be accompanied by appropriate measures. Measure of Self Directed Work Team is to trigger improvement in the team's performance. Lack of team performance measurement will result in team failure (Castka, Bamber, Sharp & Belohoubek, 2001). A case study at Lynx Engineering UK Limited by Castka et al. (2001) found Measure of Team Performance and Rewards play an important role in determining the high performance of a team. Many organizations have moved to a Self Directed Work Team approach without changing the approach of measuring team performance (Meyer, 1998). Meyer (1998) suggests four guiding principles to maximize the effectiveness of Self Directed Work Teams. First, a truly empowered Self Directed Work Team must play the lead role in designing its own team performance measurement system. Second, the whole purpose of a Self Directed Work Team performance measurement system is to focus on helping a team rather than the top managers. Third, due to the fact that Self Directed Work Team is responsible for a value delivery process that cuts across several functions, a good measure system must