

Organizational Culture and Safety Performance in the Manufacturing Companies in Malaysia: A Conceptual Analysis

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Abstract

The purpose of this paper is to provide a conceptual analysis of organizational culture and safety performance in the manufacturing companies in Malaysia. Our conceptual analysis suggests that manufacturing companies that adopt group culture or hierarchical culture are more likely to demonstrate safety compliance and safety participation. Manufacturing companies that adopt rational culture or developmental culture are less likely to demonstrate safety compliance and safety participation. Given that organizational culture has become an important topic in enhancing safety performance, this paper provides prepositions that will guide future research and offers suggestions to manufacturing managers to improve their company safety performance.

Keywords: Organizational culture, safety performance, manufacturing companies

1. Introduction

Safety performance has received much attention nowadays in the manufacturing companies as it can affect the overall organizational performance. It has gradually become the specific domain of organizational performance. Occupational accident in the manufacturing sector in Malaysia has become a challenging issue since it has topped the accident statistics among the Malaysian industries. The recent accident statistics reported by the Department of Safety and Health (DOSH), Malaysia (www.dosh.gov.my) indicates that manufacturing sector has the highest number of accident cases at 1,147 until August, 2013. The accident cases constitute 47 deaths, 93 permanent disabilities and 1007 non-permanent disabilities. By looking at the number of accident cases, it is certainly not a good sign and it tells us that the safety performance in the manufacturing sector is weak. In order to reduce the number of accidents, more safety promotional activities and enforcement should be carried out. Serious attention has to be given to safety issues as it can affect the worker's confidence and slow down productivity. Past researchers (Jacobs & Haber, 1994) have identified that there are a few

organizational factors related to safety performance. They are ranging from administrative knowledge, communications, organizational culture, decision making and human resource allocation. Among these factors, organizational culture is the most important factor because it reflects how individuals shape the organization; interpret the work environment and context (Marcus, Nichols, Bromiley, Olson, Osborne, Scott, Pelto and Thurber, 1990). The attributes of organizational culture that can influence safety performance include organizational learning, effectiveness of communications, management attention and management expectations in relation to safety (Sorensen, 2002). Since organizational culture is playing an important role in enhancing safety performance, this paper attempts to provide a theoretical framework to explain the relationship between organizational culture and safety performance in the manufacturing companies in Malaysia.

2. Literature Review

2.1 Safety Performance in the Manufacturing Companies

Recently, safety performance has become an important topic among the manufacturing companies in Malaysia. Due to accident statistics has been consistently high in the manufacturing sector for some time, employers and employees should resume their responsibilities to reinvigorate the safety management system to uphold the safety standard. Identifying areas where remedial action is required and re-establishing a new approach to handle safety issues are necessary to improve safety performance. Borman and Motowidlo (1993) stated that performance can be divided into task performance and contextual performance. When defining safety performance, Griffin and Neal (2000) explained that it consists of two components, safety compliance as task performance and safety participation as contextual performance.

Safety Compliance

Safety compliance refers to activities such as wearing personal protective equipment and performing safety instructions. It is about workers obeying the safety regulations. It also relates to safety compliance with the Occupational Safety and Health Act (OSHA). As safety compliance is explained in terms of task performance, it is part of the tasks that the workers should perform every day. For instance, safety instructions must be followed before work begins. When dealing with the risk of work, personal protective equipment must be worn at all times. In short, it is the workers' responsibilities to ensure that safety practices are performed before or when carrying out their duties. However, careless behavior normally prevails during routine duties and often overweighs safety behavior (Zohar & Luria, 2003). Workers tend to finish their job fast by neglecting safety instructions. They have the tendency to bypass safety interlocks when high output is demanded. This output-oriented culture has caused the workers' intention to ignore safety procedures. The situation has become worse when there are increasing numbers of foreign workers in the company. Communication problems and misunderstandings result an ongoing challenge for the managers to ensure safety procedures are adhered. Apart from that, leadership behavior and management commitment are also important to safety compliance. Production-oriented management and lack of safety commitment are commonly found to be the main factors of safety negligence. Since the Occupational Safety and Health Act (OSHA) emphasized on self-regulation, people and organizations have become the key factors to maintain safety compliance. Therefore, in order to provide a basis for safety compliance, organizational culture has been selected as the

antecedent because it covers people (psychological), functions (behavioral) and organizations (contextual) (Lee & Harrison, 2000).

Safety Participation

Safety participation is explained as citizenship behavior that the employees engage to display their willingness to support safety activities. For example, workers volunteer to become safety committee members, participate in safety meeting and making suggestions to improve workplace safety. Safety participation is similar to contextual performance. Safety participation does not directly contribute to personal safety but does support safety in the wider organizational context (Neal & Griffin, 2000). At present, to encourage safety participation in the manufacturing company is an uphill task faced by the managers. With non-stop production lines and plenty of daily meetings, it is almost impossible for the workers to find free time to attend safety activities. In order to encourage safety participation, some companies even offer rewards to the workers. However, this may not be an effective way to maintain long term safety benefits. Therefore, despite the hectic working environment, manufacturing companies still need to acquire and develop knowledge towards the concept of safety (Arezes & Miguel, 2003). In this case, organizational culture is essential in forming safety values and norms shared by members to encourage safety participation (Schein, 1985).

Typical Safety Performance Indicators

In the manufacturing companies, the most common safety performance indicators are number of accidents, lost time injuries, penalties and fines. These measurements are normally classified as reactive indicators. Using them alone for indicators of safety performance is not sufficient. In reality, we should aware that an excellent safety performance results in the absence of negative outcome rather than a presence (Arezes & Miguel, 2003). Safety performance should be monitored by using pro-active indicators instead of the reactive ones. To ensure accident statistic stays at zero at all times, a range of anticipative safety measures must be used to prevent accident occurrence. Generally, accidents were caused by unsafe acts. Heinrich (1959) explained that 85% of accidents can be attributed to unsafe acts and unsafe acts are resulted from unsafe behaviors. Thus, it is crucial to focus on people and organizations where they are complementary elements to determine the overall safety performance of the organization. In this case, culture plays an important role because it provides guidance to human behaviors and at the same time set the norms in an organization (Hofstede, 2001). This is the reason why culture has been seriously studied in organizational safety.

Antecedent of Safety Performance

As safety performance has received much attention in recent years, it is important to identify the antecedent of safety performance. Generally, individuals work as a team in the manufacturing companies to perform their jobs. They need to communicate and act in accordance to the organization's rules and regulations to preserve safety standard. At this point, organizational culture is able to assist in shaping individual safety behavior and stimulate interactions between people, functions and organizations (Lee & Harrison, 2000). Therefore, it is essential to assign organizational culture as the antecedent of safety performance.

2.2 Organizational Culture

According to Cameron and Quinn (1999), organizational culture is represented by values, languages, leadership styles, routines, symbols and procedures that make an organization unique. The culture of an organization can be assessed in many dimensions. It looks conceptually different but fundamentally similar in terms of models and theories. For example, organizational culture can be classified as clan/ adhocracy/ hierarchy/ market (Quinn & Rohrbaugh, 1983; Cameron & Ettington, 1988), task/ people/ security/ satisfaction (Cooke & Lafferty, 1989), group/ developmental/ rational/ hierarchical (Quinn, 1988; Denison & Spreitzer, 1991), team/ entrepreneurial/ hierarchical/ rational (Kalliath, Bluedorn & Gillespie, 1999), communal/ networked/ fragmented/ mercenary (Goffee & Jones, 1998), bureaucratic/ innovative/ supportive (Wallach, 1983) and clan/ adaptability/ bureaucratic/ achievement/ (Daft, 2005). Among the categories, Competing Values Framework (CVF) is widely used in research as it has been discovered to have both face and empirical validity and assists to integrate many of the dimensions proposed by various researchers. Additionally, it is able to capture accurately the reality being described in the organization. Apart from that, Competing Values Framework has been discovered to have a high degree of congruence with well-known and well-accepted categorical schemes that organize the way people think, their values and assumptions and the way people process information (Cameron & Quinn, 1999).

Competing Values Framework (CVF) has evolved to determine key factors of organizational effectiveness (Quinn & Rohrbaugh, 1981). It was established initially from research carried out on the main indicators of an effective organization. CVF comprises two dimensions with contrasting poles as shown in Figure 1. The first dimension of the CVF represents the primary focus of the organization on whether it is directed internally or externally. The second dimension depicts flexibility and control to differentiate the effectiveness criteria (Quinn & Rohrbaugh, 1981). An internal orientation means the organization focus on itself, its processes or its people by maintaining and improving the existing condition. An external orientation explains that the organization focus on itself with the environment by competing, adapting and interacting with the external situation. Flexibility denotes the organization's desire for change whereby control indicates its intention to stay stable and in order. The present study uses the two-dimensional typology of organizational cultures proposed by Quinn (1988). Figure 1 depicts the four quadrants representing four archetypal cultures. These four quadrants comprise a different set of indicators for organizational effectiveness. The indicators reflect what people value and see as good and appropriate for an organization. These four clusters of criteria have defined the core values of an organization's performance. The name of the model, Competing Values Framework is originated from the competing or opposite values in each quadrant of the model.

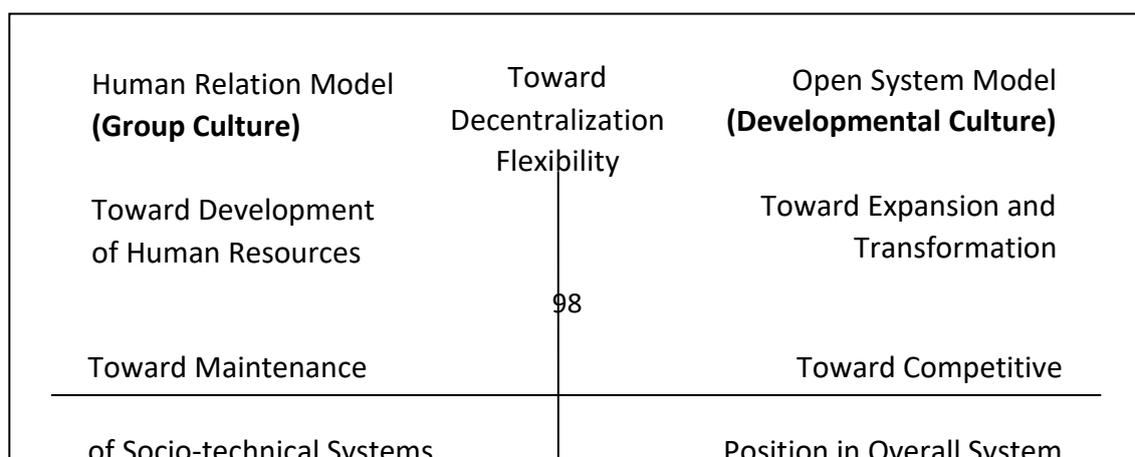


Figure 1: Competing Values Framework (CVF), Quinn (1988).

3. Theoretical Framework and Research Propositions

Despite the minor theoretical development, a number of researchers (Zhang, Wiegmann, Von Thaden, Sharma & Mitchell, 2002) have been emphasizing the importance of organizational culture in enhancing safety performance. Thus, there is a need to examine the relationship between organizational culture and safety performance in relation to the accident statistics in the manufacturing companies in Malaysia. Our proposed theoretical framework is shown in Figure 2.

According to Quinn (1998), the four clusters of values in the Competing Values Framework represent four distinct culture models. The human relation model consists of group culture that stresses spontaneity with a focus on the internal organization. Employees in group culture propel through attachment, cohesiveness and membership in the organization. They emphasize belongingness, trust and participation. Leaders tend to be participative, considerate and supportive. They are thought of as mentors or parent figures with warm and caring characteristics. They facilitate interaction through teamwork. Based on the above explanation, it is proposed that:

Proposition 1a: Manufacturing companies that adopt group culture are more likely to demonstrate safety compliance.

Proposition 1b: Manufacturing companies that adopt group culture are more likely to demonstrate safety participation.

On the contrary, rational culture emphasizes order with a focus on the external environment. Employees work in a competitive environment and motivate themselves through successful attainment of organizational objectives. Productivity, achievement, goal attainment and performance are the values and objectives of rational culture. Rational culture assumes that the market environment is hostile; consumers are aggressive, choosy and demand for value. The task of the management is to drive the organization to achieve its competitive advantage and edge its competitor in terms of productivity, quality, profits and market segment control

(Cameron & Quinn, 1999). Owing to the market competitiveness, organizations that adopt rational culture always focus on business success or survival. In this case, safety performance of the organization maybe compromise by the result-oriented culture. Therefore, it is proposed that:

Preposition 2a: Manufacturing companies that adopt rational culture are less likely to demonstrate safety compliance.

Preposition 2b: Manufacturing companies that adopt rational culture are less likely to demonstrate safety participation.

Developmental culture expresses change and flexibility with a focus on the external environment. It is referred as pioneering and innovative initiatives that lead to success of an organization. Organizations with developmental culture are mainly future-oriented and often in the process of creating new products and services to replace the current ones. Within the developmental culture, employees obtain motivation through stimulation by focusing on resource acquisition, growth, adaptation and creativity. Activity based on inventiveness is the main focus of developmental culture. Therefore, developmental culture has less influence on safety performance in an organization. Therefore, we propose that:

Preposition 3a: Manufacturing companies that adopt developmental culture are less likely to demonstrate safety compliance.

Preposition 3b: Manufacturing companies that adopt developmental culture are less likely to demonstrate safety participation.

On the other hand, hierarchical culture is characterized by a structured and formalized place to work. Hierarchical culture embraces predictability with a focus on the internal organization. Within the hierarchical culture, people act according to what stated in the procedures. Employees are governed by rules, regulations, order and security. Coordination, conformity, evaluation and internal efficiency are the values in the organization (Miller, 1994). Therefore, it is proposed that:

Preposition 4a: Manufacturing companies that adopt hierarchical culture are more likely to demonstrate safety compliance.

Preposition 4b: Manufacturing companies that adopt hierarchical culture are more likely to demonstrate safety participation.

4. Research Implications

4.1 Theoretical Implications

This study attempts to propose a theoretical framework to examine the influence of organizational culture on safety performance. Past research has emphasized that safety is deeply related with organizational culture (Cooper, 2000a). However, there are four types of organizational culture as stated in the Competing Values Framework (CVF) by Quinn (1988). Each organizational culture is classified according to different definitions, goals and system. In order to ascertain which culture is more likely to support safety performance, this study

has proposed prepositions to be tested in future study. In addition, this study is expected to add to the literature of occupational safety by introducing organizational culture as antecedent of safety performance in the manufacturing context.

4.2 Practical Implications

The present study offers suggestions to manufacturing managers on the selection of organizational culture to improve the company's safety performance. According to Donald (1998) and Cooper (2000b), culture is able to influence attitudes and behaviors of the organization members in relation to safety performance. Therefore, manufacturing companies that adopt an internal focus organizational culture (i.e. group and hierarchical culture) are more likely to improve their safety performance and further increase the workers' confidence in dealing with their routine duties.

5. Conclusion

To date, as accident statistics has been found to plateau at a consistent level in the manufacturing sector in Malaysia, there is a need to use organizational culture as the antecedent of safety performance besides the typical safety performance indicators. A suitable culture will certainly assist an organization in achieving excellent safety performance and bring positive outcomes to its people and businesses.

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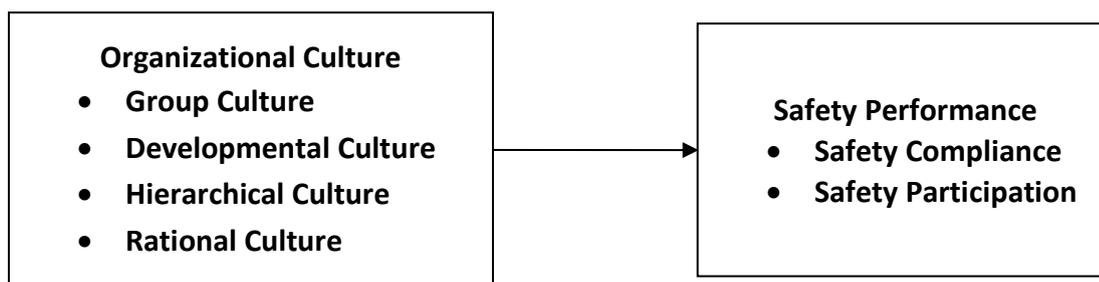


Figure 2: Proposed Theoretical Framework