CHAPTER 2   LITERATURE REVIEW

This chapter presents a brief introduction to the concept and relationship of organizational learning and learning organization, school of thought, and the empirical work in Malaysian and Non-Malaysian context, followed by review on business culture, Marquardt's "System-Linked Organization Model", learning opportunity, and consequences of organizational learning.

2.1 ORGANIZATIONAL LEARNING AND LEARNING ORGANIZATION

2.1.1 ORGANIZATIONAL LEARNING (OL)

Organizational learning can be defined from two perspectives – a technical process or a social process (Easterby-Smith et al., 1999).

The technical view assumes that organizational learning is about the effective processing, interpretation of, and response to, information both inside and outside the organization. Two of the major contributors to this school of thought are Argyris and Schon (1978), who have developed a number of important concepts including the distinction between single- and double-loop learning. For Argyris and Schon, 'organizational learning' occurs when members of the organization act as learning agents for the organization. The members respond to changes in the internal and external environments of the organization by detecting and correcting errors in organizational theory-in-use, and embedding the results of their inquiry in private images and shared maps of organization (Moilanen, 2001).

The social perspective on organizational learning focuses on the way people make sense of their experiences at work. These experiences may derive from explicit sources or tacit sources. From this view, learning is something emerges from social interactions, normally in the natural work setting. The majority of studies adopting this perspective have tended to focus on culture as an attribute of organizations, or of group within them.

2.1.2 LEARNING ORGANIZATION (LO)

A review of the literature suggests that there is no one definition of a learning organization. However, most definitions reference both learning and collective action of organizational members. Senge defines a learning
organization as "An organization that is continually expanding its capacity to create its future. For such an organization, it is not enough merely to survive. Survival learning or what is more often termed adaptive learning is necessary. But for a learning organization, adaptive learning must be joined by generative learning, learning that enhances our capacity to create" (Senge, 1990). Senge states that learning capabilities enable an organization to learn. He defines the learning capabilities as skills and proficiencies that, among individuals, teams, and larger communities, enable people to consistently enhance their capacity to produce results that are truly important to them. The capabilities are embodied in the five "learning disciplines" of The Fifth Discipline: personal mastery, shared vision, mental models, team learning and systems thinking (Senge, 1999).

On the other hand, Marquardt defines learning organization with a holistic approach. He defines it as "An organization that learns powerfully and collectively and is continually transforming itself to better collect, manage, and use knowledge for corporate success. It empowers people within and outside the company to learn as they work. Technology is utilized to optimize both learning and productivity." Marquardt's definition is adopted as a guide for the purpose of this study.

2.1.3 RELATIONSHIP BETWEEN OL AND LO

According to Marquardt (1996), in discussing learning organization, we are focusing on "what", and describing the systems, principles and characteristic of organizations that learn and produce as a collective entity. Organizational learning, on the other hand, refers to "how" learning occurs in the organization, and trying to describe the processes of organizational learning, for instance, the skills and processes of building and utilizing knowledge.

The conceptual clarification one has to make here is between means (organizational learning) and ends (learning organization). Indeed, organizational learning is only a means to achieve organizational strategies, for instance, increased profitability, and employee and customer satisfaction. The learning organization then becomes one of these strategic objectives of an organization. Recently, authors who traditionally write about organizational transformation
started to conceptualize this transformation as a learning process (Mohrman et al., 1989; Nadler et al., 1995).

2.1.4 SCHOOL OF THOUGHT

In addition to distinguishing between a strategic objective (learning organization) and the process (organizational learning), we also must distinguish between different schools of thought. Finger and Brand (1999) distinguish a systemic from a psycho-sociological approach and differentiate between three conceptions of learning, namely cognitive, humanist and pragmatic.

For the systemic approach, the organization is seen as a "learning system" (Nevis et al., 1995; Senge, 1990). This approach aims at describing the way an organization can learn as a system. More precisely, the organization is conceptualized as an information processing system, a system that performs certain necessary functions such as the generation of information, as well as the diffusion, the storage and the utilization of this information. This school of thought is based on a cognitive framework, which conceptualizes individual learning as a structured developmental process (Easterby-Smith et al., 1999).

The psycho-sociological approach to the learning organization can be traced back to theories of Human Resources and Organizational Development. This school of thought conceptualizes the organization as a set of "resourceful humans". Increasingly referring to humanistic psychology, it considers that adequate conditions must be created within an organization in order to make maximum use of the individuals' capacities to learn and grow. The learning organization, in this conception, is one that fosters individual and collective learning in order continuously to transform itself (Burgoyne, 1995).

An original branch of this psycho-sociological tradition is based on a pragmatic conception of learning. It is intellectually rooted in John Dewey's theory of learning from experience. Nancy Dixon (1994) has built on this tradition and developed her own and original conceptualization of the learning organization: she sees organization learning as the activation of such an experiential learning cycle, both individual and collectively.
2.2 EMPIRICAL WORK

Those authors who have carried out original empirical work in this field have adopted a range of approaches. The contrasting features of empirical studies have been shown in Figure 3.

<table>
<thead>
<tr>
<th>Role of researcher</th>
<th>Methodological approach</th>
<th>Unit of analysis</th>
<th>Focus on learning</th>
<th>Epistemological stance</th>
</tr>
</thead>
<tbody>
<tr>
<td>(A1) Studies where the researcher is also a major player in the processes being examined</td>
<td>(A2) Studies where the researcher is detached and distant from the processes being investigated</td>
<td>(B1) Survey-based comparisons across numbers of organizations</td>
<td>(B2) In depth cases of one, or a small number of organization</td>
<td>(C1) Macro studies which look at total organizations, especially the strategic apex</td>
</tr>
<tr>
<td>(D1) Studies that focus on outcomes as indicators of organizational learning</td>
<td>(D2) Studies that focus on internal processes that might contribute to organizational learning outcomes</td>
<td>(E1) Studies which aim to describe practice and then to conceptualize what takes place in a 'grounded' work</td>
<td>(E2) Studies which attempt to link, or to apply, specific theories to the phenomena observed</td>
<td></td>
</tr>
</tbody>
</table>

Figure 3: Contrasting features of studies of organizational learning

It seems to us that the most common forms of empirical research focus on processes where the researcher is either an active participant (A1) or a distant observer (A2), favor surveys (B1) over detailed case studies (B2), and privilege outcomes as indicators of learning processes (D1) over the processes themselves (D2). There is a particular shortage of studies that attempt to induce theory from existing practice (E1), use a small sample of in-depth cases (B2), focus on micro-practices within organizational or trans-organizational settings (C2) and study processes (D2) leading to learning outcomes (Easterby-Smith et al., 1999).
2.2.1 EMPIRICAL WORK IN NON-MALAYSIAN CONTEXT

A few researchers have explicitly linked learning processes to cultural traits. Shibata (1991) demonstrated that senior Japanese managers provided strong support for innovation, risk-taking, wide dissemination of information and broad involvement in decision taking. An earlier study by Sullivan and Nonaka (1986) that compared 75 US and 75 Japanese managers showed that senior Japanese managers espouse greater commitment to 'variety amplification' than their US counterparts. Hedlund and Nonaka (1993) and Hedlund (1994) contrast modes of knowledge in Western and Japanese firms and relate them to organizational characteristics of the two business cultures. These findings raise the possibility that different national business cultures and traditions may lead to different learning processes, and perhaps also that the product, or outcomes, of learning may be different in one culture compared to another. This area has received limited attention over recent years despite the increasing globalization of business (Easterby-Smith et al., 1999).

Yeung et al. (1999) listed three variables that may influence organizational learning capability: industry characteristics, business strategy and business culture. However, their survey results pointed to business strategy and culture as being the strongest contextual variables and there is no significant relationship with industry characteristics. Their findings also showed that organizations with a hierarchical culture are rarely experimenters. If a hierarchical organization wants to become an innovator, it may need to either change its overall business culture or create a new organization under its corporate umbrella that has a different culture. The latter approach was taken by General Motors with the creation of its Saturn division.

According to Yeung et al. (1999), clan cultures value long-term relationships and organizational cohesion; these kinds of companies — Japanese firms are the most renowned — are more likely to learn through competency acquisition, experimentation and continuous improvement. Organizations with an "adhocracy" culture are explorers and innovators and are therefore more likely to generate new ideas through competency acquisition and experimentation. Many high-tech firms in Silicon Valley have adhocracy cultures, and they learn primarily
through experimentation and self-directed learning (that is, seminars, magazines, university faculty, consultants). They also found that strong adhocracy firms could be continuous improvers, since they still need to exploit known technologies. Companies with a market culture, which are customer-driven, learn by competency acquisition, continuous improvement and experimentation. In this case, competency acquisition might involve key customers in employee training programs; experimentation might occur through responding to customer requests or challenges, and continuous improvement happens through feedback from customers. They also found that the higher the overall learning score, the higher a company’s score on innovativeness. This is an important finding, one that past theorists and executives have often assumed but rarely tested empirically. Their finding also indicated that there is certainly a fit between learning style and specific performance outcome. Interestingly, it appeared that most companies do not use benchmarking strategically and systematically, which results in little performance impact. More often than not, companies simply copy the practices of others rather than understanding the reasons that such practices are successful.

Yeung et al. (1999) stated that learning does not occur just because a new idea is created. Generalization is necessary, and this may happen when an employee moves from one location to another to share how work should get done or when technology allows managers to transfer knowledge from one unit or individual to another quickly and simply. Generalization also happens when best-practice forums are created to codify and disseminate lessons from one site to another.

Antonacopoulou (1999) studied the way individual managers in the financial services sector in the U.K learn and the contribution of organizational factors to these processes. His study showed that the unique cultural characteristics of each bank affect the perception of managers of the organization’s encouragement to learn. He found that the managers who are encouraged by the organization to take responsibility for their learning and self-development tend to be more self-reliant and are more likely to pursue learning regardless of the organization's requirements. His findings also showed that in identifying a learning goal, manager across the three banks are guided both by personal factors (perceived learning need, recognition of weaknesses, etc.), and
organizational factors (bank’s expectations and perceived criteria of success, the requirements of the job, etc.).

Tannenbaum (1997) examined whether the nature of the learning environment and the provision of learning opportunities to the individuals were related to any of the outcome variables (e.g.: perceived competence, satisfaction with development, and belief that training is viewed positively at their company). He found that awareness of the big picture, supportive training policies and practices, openness to new ideas and change, high performance expectations or accountability and strong supervisor support contributed positively to employees' perceptions of learning. Besides, individuals who attributed a greater percentage of their learning to supervisors reported stronger self-competence, greater satisfaction with development, and believed that training is viewed positively in their organization. He also concluded that continuous learning appears to be related to organizational effectiveness.

Pedler (1989, 1991) has shown in his first studies that learning is neither a single process nor an independent factor, and that learning organizations possess processes, individuals, organizational factors, etc. Previous research also showed that personal and organizational factors do not only facilitate management learning, they also inhibit it. The research demonstrated that mental defenses, emotional, cultural and motivational factors inhibit managers' receptivity to learn (Argyris, 1990, 1991; Hague, 1973; Stuart, 1984). Many researchers have observed that some of the barriers to learning are self-imposed by the individual (Brookfield, 1986; Knowles, 1973; Rogers, 1992; Smith, 1988). The individual's personality and self-esteem / self-worth, the nature of the individual's expectations in pursuing a learning goal, the physical condition at the time of learning (for example, level of stress), the immediate affect (mood), as well as their perceptions of their ability to learn are all some of the self-imposed restrictions on learning (Easterby-Smith et al., 1999).

Findings by Kaiser (2000) suggested strong consistent roles for leadership, cultures, mission and strategy, and structure in explaining learning. Management practices, climate, motivation were less effective in predicting learning. An unexpected result was the non-significant role of organizational systems. Learning was important in both innovation and external alignment.
Sergio (1999) found that middle managers add value to their organizations by integrating knowledge. His findings indicated that the processes used by the middle managers when undertaking their projects depended more on the way they perceived about their organization cultures and on the roles of the middle manager, whether is general or functional. Abbey (1999) demonstrated that perceived learning climate is significantly related to shared vision for the organization, open communication and dialogue, encouragement of experimentation and risk-taking, employee involvement and empowerment, and systems and practices that support learning. Her findings showed that learning climate was not related to employee's perception of connection to the external environment.

2.2.2 EMPIRICAL WORK IN MALAYSIAN CONTEXT

Suhail Bin Haji Azahari (1997) sought to survey the differences in opinions and views among staff of FELCRA in perceiving it as a learning organization based on demographic factors such as sex, length of service, and level of education. He found that majority of the respondents is in agreement that FELCRA is a learning organization of the highest level. There was significant difference in opinions between the sexes, and remarkable difference among those with different level of qualifications. However there was insignificant difference in opinions and views between Management / Professional Group and Support Group and insignificant difference in term of the length of service in the company.

Liew (1999) tried to measure the degree of S.E.H (M) Sdn. Bhd. transforms itself into learning organization. Her findings concluded that S.E.H has practiced the dimensions of leadership and team learning extensively. The company also always creates systems to capture and share learning or so called "embedded systems" frequently. In addition, the company has practiced the dimensions of continuous improvement and promoting dialogue and inquiry moderately, while the dimensions of knowledge performance, financial performance, system connection and empowerment are least practiced.

Khairuddin (1999) conducted a study to describe the learning experiences of Malaysian firms that are currently moving towards globalization. Five aspects
of globalization knowledge emerged from the study. The knowledge required for the globalization of Malaysian firms was: technical and industry, management, foreign culture, partner relations, and a global mindset. The study also determined that executives learned through experience, scanning and networking. Finally, personal interaction, formal training and conferences, and organizational mechanisms were used to share and disseminate information about globalization within the companies. From his study, Khairuddin also found that the company's history influences the learning culture of the company.

Study by Rebecca (2000) was to determine the relationship between organization members' perception of their organization’s learning culture and concerns about innovation, and influence of these factors on their use of one innovation (ISO 9000) in Malaysian public sector. Her study concluded that perception of learning culture had a greater explanatory power ($R^2 = 31.5$) than did concerns about innovation ($R^2 = 10.6$). She found that people at higher levels in the organizations were more concerned about the impact of the innovation on the organization whereas people at lower levels were more concerned about themselves.

### 2.2.3 SUMMARY OF EMPIRICAL WORK

Most of the empirical works conducted in the Malaysian context are either case studies of single organization or based on the demographic factors and aiming to investigate the perception of individuals whether the organization they attached to, practices or possesses the characteristics of learning organization. Rebecca (2000) stated that while one can conceive and test models of organizational change, one cannot make generalizations based on studies of single organizations or case studies.

On the other hand, researches in non-Malaysian context had been conducted in a more profound and holistic approach by looking at how the personal factors (e.g.: mental defenses, emotional, personality, self-esteem, stress level, perceptions of the individual's ability to learn, etc.) and organizational factors (e.g.: business cultures, industry characteristics, business strategy, organization's expectations, etc.) affect the organizational learning capability, learning style and learning source of organizations. Those researches also
analyzed how these learning capability, learning style and source affect the individual’s performance (e.g.: satisfaction with development, self-reliant, self-rated competency, etc.) and organization’s performance (e.g.: organizational effectiveness, customer satisfaction, innovativeness, competitiveness, financial, etc.). From the researches in non-Malaysian context, we can conclude that there is antecedent of learning and consequences of learning. Hence, this research adopts the same concept where antecedent of learning that will be considered is business culture, and consequences that is taken into account are individuals’ self-rated competency and satisfaction with development, and organizational innovativeness.

2.3 BUSINESS CULTURE

Business culture has been formally defined in the literature by Deshpande and Webster (1989) as: “the pattern of shared values and beliefs that help individuals understand organizational functioning and thus provide them norms for behavior in the organization”. Organizational culture is generally seen as the unwritten rules that permeate a firm which may have a great deal of impact on the behavior and productivity of employees (Webster, 1993). In fact, Smircich (1983) argues that organizational culture may be the critical key that managers can use to direct the course of their firms.

Findings of Hedlund and Nonaka (1993) and Hedlund (1994) via contrasting modes of knowledge in Western and Japanese firms – the two business cultures, raise the possibility that different national business cultures and traditions may lead to different learning processes, and perhaps also that the product, or outcomes, of learning may be different in one culture compared to another. Findings of Yeung et al. (1999) supported different business cultures possess different learning styles and learning disabilities, which eventually affect the business performance.

As the research regarding organizational culture has evolved, a number of different "models" of organizational culture has been presented. The model used in the current research was originally presented by Bob Quinn and his colleagues that identify four culture types based on two dimensions (loose control versus
tight control; internal focus versus external focus) as shown in Figure 4 and Figure 5 list the practices that characterize each culture.

(1) Clan cultures (loose / internal) value human commitment, morale, participation and openness. For McDonald and Gandz (1992), this is a consensual culture that organization’s purpose is group maintenance, and which gauges performance in terms of whether or not it facilitates cohesion and morale. Authority is vested in those who are members of the organization generally and the basis for the exercise of power is informal status. Decisions tend to be arrived at through participation and consensus and the dominant leadership style is one of concern and support. Employees comply with agreed decisions because they have shared in the process by which they were reached. Individuals are evaluated in terms of the quality of the relationships they enjoy with others and are expected to show loyalty to the organization.

(2) Adhocracy cultures (loose / external) emphasize adaptability, growth, and innovation. McDonald and Candy (1992) suggest that this is an ideological culture, which can support broad purposes as indicated by its favored criteria of performance, namely, external support, and growth and resource acquisition. Authority is held on the basis of charisma and power is wielded by referring to values. In such organizations decisions are often taken as a result of intuition, leaders tend to be inventive and risk-oriented, and employee compliance is enforced by their commitment to organizational values. Individuals are evaluated according to the intensity of their effort and interested in growth rather than achievement.

(3) Hierarchy cultures (tight / internal) focus on stability, control, and management of the existing bureaucracy. According to McDonald and Gandz (1992), in these organizations authority is vested in the rules and power is exercised by those with technical knowledge. Decisions are made on the basis of factual analysis and leaders tend to be conservative and cautious. Surveillance and control is used to maintain the compliance of employees, and they are assessed against formally agreed criteria and are expected to value security.
Market cultures (tight / external) emphasize output, production, efficiency, and goal clarity. According to McDonald and Gandz (1992), this is a rational culture designed to pursue objectives using productivity and efficiency as the primary criteria of performance. The 'boss' is firmly in charge of this culture, and competence is the basis of his or her authority. The style of leadership is directive and goal-oriented, decision making is decisive and the compliance of employees guaranteed by contractual agreement. Individuals are judged according to their tangible output and are encouraged to be achievement-oriented.

Figure 4: Bob Quinn's Business Cultures Model
<table>
<thead>
<tr>
<th>Business cultures</th>
<th>Value</th>
</tr>
</thead>
</table>
| 1. Clan culture   | Empowerment of employees to act  
Participation, open discussion  
Assessing employee concerns and ideas  
Human relations, teamwork, cohesion |
| 2. Adhocracy culture | Flexibility, decentralization  
Innovation and change  
Expansion, growth, and development  
Creative problem solving processes |
| 3. Hierarchical culture | Control, centralization  
Predictable performance outcomes  
Stability, continuity, order  
Routinization, formalization, structure |
| 4. Market culture | Task focus, accomplishment, goal achievement  
Efficiency, productivity, profitability  
Outcome, excellence, quality  
Direction, objective setting, goal clarity |

Figure 5: Measures of Business Culture

2.4 MARQUARDT SYSTEM-LINKED ORGANIZATION MODEL

Marquardt developed the "System-Linked Organization Model" (as shown in Figure 6) that incorporates five closely interrelated subsystems that support one another – learning dynamics, organizational transformation, people empowerment, knowledge management, and technology application. According to Marquardt, attempting to understand or become a learning organization without all five dimensions of learning capability will lead to only a partial appreciation of the processes and principles necessary to move from a non-learning to a learning organization. The five subsystems are dynamically interrelated and complement each other. If any subsystem is weak or absent, the effectiveness of the other subsystems is significantly weakened. The following elaborate in great detail these five interrelated subsystems.
2.4.1 LEARNING DYNAMICS

The core subsystem of the organizational learning model is the learning itself. The speed, quality, and leverage of the learning processes and content form the foundation and nutrient that supports, nourishes, and flows through the other subsystems of the learning organization. The learning subsystem refers to three dimensions:

1. Levels of learning (individual, team and organization),
2. Types of learning crucial for organizational learning – generally, types of learning can be categorized into two major types, namely single- and double-loop, the concept developed by Argyris and Schon. Other than these two, in his book “Building the Learning Organization”, Marquardt (1996) also talked about accelerated, anticipatory and action learning.

For Argyris and Schon (1978) learning involves the detection and correction of error and they described single-loop learning and double-loop learning in the context of organizational learning:

(a) Single-loop learning – When the error detected and corrected permits the organization to carry on its present policies or achieve its present’s objectives, then that error-and-correction process is single-loop learning. Single-loop learning is like a thermostat that learns
when it is too hot or too cold and turns the heat on or off. The thermostat can perform this task because it can receive information (the temperature of the room) and take corrective action (Mark K. Smith, 2001). In short, single-loop learning is adaptive learning by gaining information to stabilize and maintain the existing operational systems, involves improving the organization's capacity to achieve known objectives and is often associated with routine and behavioral learning.

(b) Double-loop learning – Double-loop learning occurs when error is detected and corrected in ways that involve reevaluation the nature of the objectives and the values and beliefs underlying them, and involve the modification of an organization's underlying norms, policies and objectives (Mark K. Smith, 2001). Double-loop learning is in-depth organizational learning that looks at organizational norms and structures that cause the organization to function in the way it does questions the system itself and why errors or successes occurred in the first place. Double loop theory is linked to his "theory of action" outlined by Argyris & Schon (1974). The end result of double loop learning should be increased effectiveness in decision-making and better acceptance of failures and mistakes (Wendy P Clark). While the single-loop learning rarely leads to significant change in a firm's basic assumptions, double-loop learning involves changing an organization's culture. In other words, it consists of learning how to learn (Yeung et al., 1999).

(c) Accelerated learning – to increase the ability of individuals to learn more information in less time as well as to increase learner creative and reflection

(d) Anticipatory learning – an individual's or organization's learning in order to meet needs that are projected for the future with the sequence: vision-reflection-action.

(e) Action learning – Deliberate, conscious effort to review and reflect on real problems, action of the individual or the organization to implement solutions. Developed by Revans, it is the combination of P
(programmed or already-existing information) plus Q (questioning of existing information to learn from and apply it).

(3) Learning skills or disciplines (personal mastery, mental models, team learning, systems thinking and shared vision).

(a) *Personal mastery* indicates the high level of proficiency in a subject or skill area. It requires a commitment to lifelong learning so as to develop an expertise or special, enjoyed proficiency in whatever one does in the organization. To provide conditions in which individuals can develop their capacity to create what they care about, organizations must invest time, energy, and money far beyond what most managers today consider appropriate. Personal mastery implies a willingness to invest what is necessary to create an environment that helps employees become high-quality contributors.

(b) *Mental models* are the images, assumptions, and stories, which we carry in our minds of us, other people, institutions, and every aspect of the world. Two types of skills are central to this work: reflection and inquiry. Individuals who are undisciplined in reflective thinking have little tolerance for multiple interpretations of events because they often "see" only their own interpretation. In teams and groups, people who have not mastered a threshold level of inquiry skills spend more hours arguing their ideas.

(c) *Team learning* focuses on the process of aligning and developing the capacity of a team to create the learning and results its members truly desire. Team learning transforms reflection-inquiry skills into capabilities; they become collective vehicles for building shared understanding. To enhance team learning, *dialogue* has to be emphasized. *Dialogue* denotes the high level of listening and communication between people. Dialogue is not merely a set of techniques for improving organizations, enhancing communications, building consensus, or solving problems. It is based on the principle that conception and implementation are intimately linked, with a core of common meaning. During the dialogue process, people learn how to think together — not just in the sense of analyzing a shared problem
or creating new pieces of shared knowledge, but in the sense of occupying a collective sensibility, in which the thoughts, emotions and resulting actions belong not to one individual, but to all of them together.

(d) Systems thinking are a discipline for seeing wholes. By "systems thinking", Peter Senge means the ability to understand the complex causal relationships among a set of organizational factors and issues rather than linear cause-effect chains. No action in an organization stands alone. All actions are connected in systematic ways to other actions.

(e) Shared vision creates a sense of purpose that binds people together and propels them to fulfill their deepest aspirations. Shared vision is centered on a never-ending process, whereby people in an organization articulate their common stories – around vision, purpose, values, whey work matters, and how it fits in the larger world.

2.4.2 ORGANIZATIONAL TRANSFORMATION

The organization is the structure and body in which and for which the individual, group, and organization-wide learning occurs. To go from a non-learning to a learning organization requires a significant transformation. To flourish as a learning organization, the company needs to reconfigure itself through an attentive focus on the four key dimensions or organization, namely vision, culture, strategy, and structure.

According to Marquardt, the most important step in becoming a learning organization is for people to build a solid foundation of shared vision about learning. Vision, a solid foundation of shared vision about learning, accompanied by recognition that unless the company becomes a learning organization, it cannot achieve its vision. As mentioned earlier, a shared vision provides the focus and energy for learning. It can lead multiple strategies and procedures into a common goal.

The culture of most organizations is one of non-learning or anti-learning. Taking risks, trying new approaches, sharing information is discouraged and failure will cause to punishment. Nonetheless, a successful corporate learning
*culture* has a system of values that is supportive and committed to continuous learning. Hence, to become a learning organization, these cultural values need to be transformed.

*Strategy* refers to the action plans, methodologies, tactics, and steps that are employed to reach a company's vision and goals. In a learning organization, there are strategies that optimize the learning acquired, transferred, and utilized in all company actions and operations. Commonly, organization rewards people and teams for learning and helping others learn.

*Structure* includes the departments, levels, and configurations of the company. A learning organization is a streamlined, flat, boundary-less structure that maximizes contact, information flow, local responsibility and collaboration within and outside the organization. The driving organizing principle is to put the necessary freedom, support, and resources in the hands of the people.

### 2.4.3 PEOPLE EMPOWERMENT

People are the pivotal part of learning organizations because only people, in fact, learn. The people subsystem includes employees, managers / leaders, vendors or suppliers, customers, business partners, and the community itself. Each of these groups is valuable to the learning organization, and all need to be empowered and enabled to learn.

*Employees* as learners are empowered and expected to learn, to plan for their future competencies, to take action and risks, and to solve problems. *Managers / Leaders* as learners carry out coaching, mentoring, and modeling roles with a primary responsibility of generating and enhancing learning opportunities for the people around them. The new leadership roles and skills required include instructor, coach, and mentor, knowledge manager model for learning, advocate and champion for learning processes and projects and etc.

*Customers* as learners participate in identifying needs, receiving training, and being linked to the learning of the organization. Organization share information with customers and obtain their ideas to learn. *Suppliers* as learners can benefit by sharing competencies and knowledge. *Community groups* as learners include society, educational, and economic agencies who can share in the providing and receiving of learning.
2.4.4 KNOWLEDGE MANAGEMENT

Knowledge has become more important for organizations than financial resources, market position, technology, or any other company asset. Individuals may come and go, but valuable knowledge cannot be lost or the company starves to death. The knowledge subsystem refers to the management of acquired and generated knowledge of the organization. It includes the acquisition, creation, storage, transfer, and utilization of knowledge.

Acquisition refers to the collection of existing data and information from within and outside the organization. Organizations acquire knowledge from both external and internal sources. Companies can acquire information from the external environment through various methods, for example conferences, consultants, benchmarking other organizations, hiring new staff and collaborating with other organizations. Internal collection of knowledge means learning from what other parts of the organization are doing.

Creation involves new knowledge that is created within the organization through problem solving and insights. Storage is the coding and preserving of the organization’s valued knowledge for easy access by any staff member, at any time, and from anywhere. In order to store knowledge, an organization must first determine what is important to retain and then how best to retain it.

Transfer and utilization includes the mechanical, electronic, and interpersonal movement of information and knowledge, both intentionally (memos, reports, training, briefings, tours, mentoring, etc.) and unintentionally (job rotation, stories, task forces, informal networks etc.), throughout the organization and use by members of the organization.

2.4.5 TECHNOLOGY APPLICATION

The technology subsystem is the supporting, integrated technological networks and information tools that allow access to and exchange of information and learning. It includes technical processes, systems, and structure for collaboration, coaching, co-ordination, and other knowledge skills. The three major components are information technology, technology-based learning, and electronic performance support systems.
Information technology refers to the computer-based technology that gathers, codes, stores, and transfers information across organizations and across the world. Information technology enhances knowledge transfer in organizations where it can improve the ability and easiness of people to communicate with one another; it reduces the number of management levels needed; yet at the same time provides and enhanced potential for span of control.

Technology-based learning involves the utilization of video, audio, and computer-based multimedia training for the purpose of delivering and sharing knowledge and skills. Technology-based learning will be under the control of the employee, because most jobs are becoming ever more complex and require higher levels of skills.

Electronic performance support system (EPSS) use data (text, visual, or audio) and knowledge bases to capture, store, and distribute information throughout the organization so as to help workers reach their highest level of performance in the fastest possible time, with the least personnel support. The system consists of several components including, but not limited to, interactive training, productivity and application software, and expert and feedback systems.

2.5 ORGANIZATION LEARNING OPPORTUNITY

Two decades of research shows that the most powerful learning derives from the particular work assignments and the ways in which the organization is structured to promote learning. Recent work on the learning organization suggests that organizations can deliberately and strategically build a continuous learning infrastructure (Marsick and Watkins, 1996, 1999).

Theorists and researchers have identified three primary categories of learning opportunities in the workplace: formal, informal and incidental (Marsick and Watkins, 1990, 1999). Watkins and Cervero (2000) conducted a case study in certified public accountancy (CPA) to determine whether two different organizational settings of CPA practice produced substantially different or equivalent learning opportunities for a practicing CPA. Three sources of data in this research project were examined, including a work history from the firms, interviews, and surveys from the three principal parties. In this study, 31 learning opportunities were identified across three domains of learning in order to
compare the learning provided in two organizational contexts. It was found that, indeed, learning occurred in all three domains and at consistently high levels across both organizations.

Tannenbaum (1997) found that the learning opportunities are different significantly across companies in the U.S, with one exception – formal training. It appears that formal training accounts for a small but consistent amount of development in those companies. His research also concluded that there is a tendency to attribute more of the learning opportunities to informal sources such as learning through the individuals’ supervisors and coworkers, and trial and error or observation.

Formal opportunities are provided in structured, institutionally sponsored, classroom-based activities. These are familiar as the courses, seminar and conferences held in-house or away from the typically involve a teacher and a large group of learners.

Informal learning refers to those equally important learning experiences that occur naturally as part of work. These include such things as on-the-job coaching, performance planning, self-study including professional journals and books, and potentially all structured activities with a learning or educative intent.

Incidental learning opportunities are those that are not planned but occur spontaneously as a by-product of opportunities to work with new or challenging projects, with expert professionals on common tasks, through networking with knowledgeable peers, or simply as part of debriefing a project.

2.6 CONSEQUENCES OF LEARNING

There are a number of consequences exist for the organizational learning, for instance, morale and commitment of employees, customer satisfaction, market share, sales and etc., and the research focuses on three key measures – self-rated competency, satisfaction with development of respondents since joining the organization and the organization’s innovativeness.

*Self-rated competencies* refer to how competent an individual perceive him/herself in performing the job in term of:

1. Knowledgeable
2. Effectiveness and efficiency
(3) Proficiency

(4) Ability to coach

*Satisfaction with development* refers to the satisfaction level in terms of:

(1) Learning since joining the organization

(2) Personal development since joining the organization

*Innovativeness* refers to an organization's willingness to experiment and take risks, and Yeung et al. (1999) broke it down into four components:

(1) Willingness to experiment

(2) Willing to take risks

(3) Reputation as an innovator

(4) Cycle time for innovation