CHAPTER 2

LITERATURE REVIEW

A case study research method is identified as valuable for its potential to reveal a rich and detailed understanding of the functioning of management control and factors influencing change in organisations. (Conrad, 1999) The research employed a qualitative methodology to identify the nature and culture of the original organisation and to identify, analyse and explain the effects of the forces of change in moulding the final organisation. (O'Loughlin, 1998)

Checkland's soft system methodology (SSM) (Checkland, 1999) is a framework for system analysis that has proved effective in designing socio-technical systems in general (Wilson, 1991) and in requirements engineering in particular. (Dobson, Blyth, Chudge, and Stephens 1994) It provides a set of guidelines for examining an organisation with a view to clarifying where improvements may be possible. This methodology contains 2 kinds of activities, namely real world activities necessarily involving people in the problem situation and system thinking activities which may or may not involve those in the problem situation, depending upon the individual circumstances of the study. It does not require strict adherence to procedures or rules, although there are certain constitutive and strategic rules which assist with its application in practice. The main difference between SSM and other approaches is the specific inclusion of system thinking stages. It makes an explicit distinction between real world and systems-world activity. (Patching, 1990)

To build a model of a concept of a complex purposeful activity in the real world using SSM, one require a clear definition of the purposeful activity to be modelled. (Checkland, 1999) In this case, a full-scale assessment can be used. A full-scale assessment will include 4 specific and integral elements, namely, the performance assessment, the environmental assessment, the review of methods and organisation and the change management strategy.

(Griffin, 1996) The first assessment on the organisation viability towards change can be gauged through organisation self-actuation. (Yolles, 1999) Self-actuation is a set of boundaries against the environment that closes the system in respect of the particular actuation. [See Appendix 2] The word of self-actuation in this context is almost similar as it is commonly use to explain mechanical chain such as forces in the interfaces of clutches and brakes. (Foszcz, 1999)

Actor network theory, derived from recent research in the sociology of science and technology, provides the framework for modelling the decision process as moving from a moment of problem definition, negotiated and controlled by the most powerful actor, through communication, argument and resistance between members of the network, to nodal judgements and finally the power resolution of judgmental arguments. [See Appendix 3] The final judgmental which forms the decision, is formulated by attempting to minimise the power required to achieve a good fit between the solution proposed and the relevant social value structure. (Parkins, 1996) In addition, the actor network was utilised to study the human resource development (HRD) whereby the system able to reveal the HRD values, role expectations and evaluation criteria. (Garavan, Herety and Morley, 1998)

The concept of dissipative structures, from the field of complexity theory, is used to develop and explain a specific sequence of activities which underpin effective transformation. [See Appendix 4] This sequence integrates selected concepts from the literatures on strategic change, organisational learning and business process. By managing at the level of deep structure in social systems, organisations can gain some influence over self-organising processes which are typically regarded as unpredictable in natural sciences. (MacIntosh and MacLean, 1999) Prior to this, Liu (1996) had made an attempt to apply the dissipative structure theory in the management of information systems.

The following assessment in the real world activity will allow a better understanding of the problem situation. Likewise, organisation development is

an on-going process and in order to gain a clearer perspective on the organisation issue may require collection of preliminary data. Six-level organisational diagnosis is a useful tool to calibrate the situation, location, strategic business units (SBUs), departments or a group of people against a set of criteria. [See Appendix 5] (Cummings and Worley, 2001) It provides information about how the business operate, the challenges that lie ahead as well as organisation climate survey.

Organisation diagnosis is widely used in diagnosing the core problems that influence the flexibility of the organisation. (Simonse, 1999) This method is used to understand what is really happening in the organisation. A complete diagnosis would increase management's ability to locate the root cause of any given symptom and thus better assign responsibility and accountability for corrective action. (Lee, Shiba, and Wood, 1999)

In the system world activity, one is required to work out a particular conceptual issue as its boundaries. (Checkland and Scholes, 1990) The ISO 14000 and ISO 9000 are the two formal system concepts that can be used as a guide for this purpose. The value of the formal systems model is that it enables questions to be framed and also to measure the influences of the model on the environment taken into account in the activities of the system. (Checkland, 1999)

ISO 14001 Environmental Management System – Specification with guidance for use is the fundamental part of the ISO 14000 series of environmental management standards. It defines a systematic process, by which organisations can identify and manage their environmental responsibilities and commitments and may be objectively verified as evidence of their commitments. (Loves, 2000) Environmental performance is measured by employing the concept of environmental capabilities as an analytical tool to study the way firms develop and accumulate the required technical, human and organisational assets to manage, co-ordinate and govern environmental performance in the face of uncertainty due to technical and organisational change. (Boira-Segarra, 1997) A key to successful EMS implementation is to

develop a common vision and awareness-based approach that focuses on shared vision and feedback between different hierarchical levels within an organisation. (Yarnell, 1999)

Although various business in industrial countries have worked very hard in recent years to reduce damage to the environment, the potential for improvement is still great in developing and emerging countries. The introduction and implementation of an environmental management system (EMS) alone is not enough to reduce environmental damage. An environmental strategy is essential to improve the ecology performance and increase competitiveness, which can serve as a guide to environmental sound product and process development as well as a better position in the market place. (Edelmann Colmant, 1999)

An international consensus is growing for the notion that sooner or later, all global companies will need to make strenuous efforts to protect the environment. The number of Japanese companies making strong efforts to obtain ISO (International Organisation Standardisation) 14001 certification, the international standard for environmental management systems, is rapidly rising. (Anonymous, 1998) The ISO 14000 standards provide a framework for effectively managing the transfer of environmental responsibility from the environmental engineering function to all employees within the organisation. (Spencer, 1999)

Quality System is about evaluating how and why things are done, documenting how things are done and recording the results to show it was done. A quality system will not automatically lead to improvement of work processes or product quality. It is meant to take a more systematic approach to the business. Basically they are a set of standards which specify requirements (ISO 9001) for quality systems and others which are guidance documents to aid in the interpretation and implementation. (Quality System Explained, 1995) Factors influencing a successful transition from ISO 9000 to Total Quality Management including key aspects of executive mindset, such as understanding and motivation. (Meegan, 1998)

The new ISO 9000:2000 (Seminar on ISO 9001:2000 The Key Changes, 2001) stress a lot on the element of continuous improvement. Continuous improvement can be described as the continuous reduction of variation. Variation has many sources (machines, methods, materials, measurements, people and environments) and causes (special and common). Variation in manufacturing processes is primarily observable in product characteristics, process parameters and gauging systems, which is why reducing variation in these three areas is the main goal of effective process management. (Wetzel and Maul, 1996)

In assessing the organisation performance, it is vital to choose the correct method. The basic methods used in collecting data are observation and secondary data study. The observation technique records behaviour without relying on reports from respondents. Observational methods are often reactive because data are collected unobtrusively and passively without a respondent's direct participation. The observation method is used in the study of the merger process between two high tech companies in which it contributes empirically by providing an account of the processes of learning and the emergence of strategies in the post-merger phase. (Kreitner and Lee, 2000) On the other hand, the secondary data are usually historical, already assembled and do not require access to respondents or subjects. The secondary data such as others' experience and data are utilised because they can be obtained rapidly and less expensive. (Zikmund, 1983)

Studies are usually done on a random sample taken from a population. The process of sampling involves a procedure using a small number of items or parts of the whole population to make conclusion regarding the whole population. In statistics, one calls population the group of 'event' for which data are available and can be studied. Events are characterised by one or more random variables. The name comes from frequent applications to groups of people or animals. Gillett and Srivastava (2000) have shown that the method to determine the sample size in attribute sampling is to obtain a

desired level of belief that the true attribute occurrence rate of the population lies in a given interval.

In probability sampling, every element in the population has a known non-zero probability of selection or an equal probability of being selected. Stratified sampling is a probability sampling procedure in which subsamples are drawn from samples within different strata that are more or less equal on some characteristics. Random sampling error is reduced because the groups are internally homogeneous but comparatively different between groups. Another reason is the assurance that the sample will accurately reflect the population on the basis of the criterion or criteria used stratification. (Zikmund, 1983)

Random sampling error is the difference between the sample result and the result of a census conducted by identical procedure. It occurs because of chance variation in the scientific selection of sampling unit. The sampling units, even though properly selected according to sampling theory, may not perfectly represent the population, but they are generally reliable estimation. This is because they tend to cancel out each other's chance variation when averaged. (Zikmund, 1983)

True measurement of concepts requires a process of assigning precise scores or numbers to the attributes of people or objects. The purpose of assigning scores or numbers is to convey information about the variable being measured and the purpose of scaling is to present, usually quantitatively, an item's, a person's, or an event place's in the spectrum. An ordinal scale arranges objects or alternatives according to their magnitude in an ordered relationship. A typical ordinal scale in business research asks respondents to rate as "excellent", "good", "fair", or "poor". The "excellent" is higher than the "good" but there is no measure in unit of the higher, it only indicate the order. (Zikmund, 1996) Likert (1965) has successfully developed a technique for the measurement of attitudes called 5 points Likert Scale which is widely used in many behavioural assessment.

Intervention success depends heavily on the organisation being ready for planned change. It is postulated that one of the principal reasons why change did not occur was because of the organisation's inability to learn. (Horbury, 1998) Indicators of readiness for change include sensitivity to pressure for change, dissatisfaction with the status quo, availability of resources to support change and commitment of significant management time.
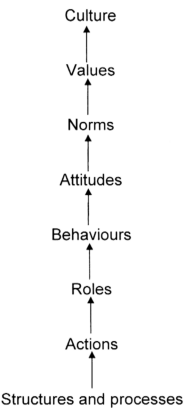(Cummings and Worley, 2001)

Each successful organisation established a small unit to provide planning, coordination and support for change. It is a central department in charge of managing key aspects of the integrated management system. Most of the successful organisations chose an experienced, admired manager from within the organisation as the head of the group. (Cummings and Worley, 2001)

Porter (1996) claimed that a proper link between strategy and manufacturing operations is a key to developing sustainable competitive advantage. To be successful in this globally competitive, rapidly changing environment, organisation must formulate strategic plans that are consistent with their investment in and use of manufacturing technology. The strategic plans should also incorporate an organisation development intervention that consists a sequence of activities, actions and events intended to help an organisation improve its performance and effectiveness. Intervention design, or action planning, derives from careful diagnosis and is meant to resolve specific problems and to improve particular areas of organisational functioning identified in the diagnosis. There are 4 parts of intervention strategy, i.e. human process interventions, technostructural interventions, human resource interventions and strategic orientation interventions. [See Appendix 6] (Cummings and Worley, 2001)

According to Gratton (1998), one of the strongest potential links between individual behaviour and corporate goals are people processes. The alignment of people processes make particular demands on the human resource strategy and necessitates a whole new set of rules and human resources capabilities, namely, think process, not paper; become the guardian

of the future; learn to view the company as a complex system and learn to partner and understand change.

Culture change over time, but slowly and usually only because of slight variations in adherence to it. The effective way to change an organisation's culture is to reverse the hierarchy by putting in place the structures and processes that define the roles and actions that in turn will enforce behaviours that ultimately will result in a changed culture. (Lee and Grover, 1999)

Culture

↑

Values

↑

Norms

↑

Attitudes

↑

Behaviours

↑

Roles

↑

Actions

↑

Structures and processes

In an effort to support their vision of the future, each successful organisation made similar small but significant changes in their structures designed to nurture the dramatic process changes that would follow suit. (Cummings and Worley, 2001) In addition, Hirani and McEvoy (1999) posited that technology can be an agent of structural change.

The concept of concurrent engineering and multi-creation teams and transparent organisational structure are useful for awareness creation supporting the organisation development strategy. The macro approach starts from the design of new transparent organisation structures and models incremental changes in the organisational structures. The micro approach combines concurrent engineering and multicreation teams into a synergetic approach of product creation. The results of a company wide evaluation of the impact of this team approach on performance, revealed that its impact was rated highest for innovation and creativity. There were also improvements in quality and a small improvement on cost. (Simonse, 1999) A design approach which focuses on the participative analysis and design of structures, processes and information technology to improve organisational coordination has been formulated, applied and evaluated. (De Vreede, 1997)

Adopting the concept of the internal customer. A shift in thinking toward pleasing the internal customer, defined as whoever receives or is affected by work, effectively redefines the entire organisational structure to be more oriented toward real results. This was the most universal change. Each of these types of structural changes, adopting the concept of internal customers, creating a central unit with responsibility for planning and supporting the new management, and using various types of teams, illustrate a crucial principle of integrated systems at work. That is, to be effective, a system must be structured to facilitate, even force, the beneficial interaction of all its elements. The central task of managing an integrated system, is to manage those interactions. (Cummings and Worley, 2001)

In each successful organisation, some fairly well designed group of teams played the key role in actually implementing the organisation's version of the scientific method. Each successful organisation not only employed teams, but created a special mechanism for managing and improving them. The team management systems seem to be significant elements of organisation efforts to teach their people to use the scientific method in groups. Team oriented work produces two important outcome crucial to integrated management systems, viz., it forces creative and knowledge-sharing interactions among

people and groups, and it fosters the dispersion of a common language of improvement throughout the organisation. (Cummings and Worley, 2001)

The relationship between organisational structures and information technology (IT) has been the subject of much discussion in Information System research. The importance of examining the relationship between structure and technology is increasing in an environment where organisations are using contemporary IT to redesign themselves in order to compete more effectively. (Lee and Grover, 1999)

The Enterprise Resource Planning (ERP) development promises to increase efficiency in handling transactions, improve decision making and further transform ways of doing business. Fundamental to this movement are cultural and organisational shifts intended to align Information Technology and business-management objectives. Post ERP activity has been segmented into 3 stages. The first stage entails productivity decline, which is overcome by redefining jobs, establishing new procedures, fine-tuning ERP software, and taking charge of the new streams of information created by the platform. The second stage involves skills development, structural changes, process integration, and add on technologies that expand ERP functionality. The third stage is one of transformation, where synergies of people, process and technology reach a peak. (Caldwell, 1998) On the contrary, Jenkins and Wright (1998) advocated that structural changes include reducing lead-times from suppliers, JIT manufacture and holding stocks at customers' sites. System changes may include speeding information flow and deploying information technology to improve planning and control of the supply chain.

Concepts associated with the resource-based view and the firm competitive advantage are increasing and thus force firm to strengthen their human resource management. (Boxall, 1999) It is argued that integrating human resource strategy and strategic planning is fundamental to achieving business excellent. (Briggs and Keogh, 1999) It is often said that an organisation is only as good as its people. Human resource managers are now being called on to

decrease unwanted turnover, accelerate the development cycle for key employees and reduce process time and costs through computerisation and self-service human resource. (Teuke, 2001) Also, they are being called on to integrate people management practices with the business plan while providing cost-effective, traditional HR services. (Galpin and Murray, 1997)

One of the common needs for all organisations is human resource development or training. This need has grown in importance as organisations grapple with the challenges presented by a highly dynamic and increasingly global economy. Today's training must be so compelling as to absorb trainees in its realism in a way that engage more than the intellect. It must be relevant to the complexities of the work life of trainees and most importantly, it must provide a memorable and lasting experience. Training removes unwanted behaviour and encourages the performance of new behaviours. It is a process that causes change to the workers and such change shall be evident in the final product. (Laird, 1990)

A diagnostic approach to training is introduced so that we can distinguish between a reactive, or problem solving approach to human resource management and a proactive or forward-looking approach. A reactive organisation only invest in training on the basis of the need to train their employees so that they can ultimately improve the competitive edge of their existing product. Whereas a proactive organisation uses training both to encourage employees to invest in their own human capital as well as to solve current and future problems such as preparing their employees for organisational expansion and change. (Milkovich and Boudreau, 1988)

Training is an experience, a discipline or a regimen which causes people to acquire new predetermined behaviours which leads to performance of a certain standard. (Laird, 1990) Organisations provide formal training through a systematic process of changing behaviour, knowledge, and / or motivation of present employees to improve the match between employees characteristics and organisations' requirement. (Milkovich and Boudreau, 1999)

Good training programmes can increase people's knowledge of culture, cultural differences, and issues to be faced when interaction in other cultures occurs. (Berry, Segall, and Kagitcibasi, 1980) Cole, Gray, Glick and Sharp (1971) advocated that there is a relationship between a particular feature of the eco-cultural context (e.g. experience and role) and a specific cognitive performance (e.g. classification task). For example, people can increase the complexity of their thinking, taking multiple points of view into account and multiple arguments related to the same issue (e.g. cultural, political and economic factors in addition to people's initial reaction).
(Thomas and Ravin, 1995)

On the other hand, Fuller has faced less than a 2% turnover rate. Keys to the success of the program include individual development is a team effort, human resource is part of a team, one size does not fit all and focus on continual improvement not rating. (Dockery and Sahl, 1998) In other context, Frank Vega (1997) claimed that to kill off complacency or prevent the employees from sliding back into old performance habits, and preserve new hard-won efficiencies, one should built a number of motivating programs and task forces.

The strategic orientation intervention helps organisation to gain a comprehensive understanding of their environments and to devise appropriate responses to external demands. (Cummings and Worley, 2000) Significant demands are imposed on the corporate management of multinational corporations (MNCs) to develop a strategic orientation of their global human resource management systems. The strategic orientation should balance the need for both global stability and local flexibility. (Harvey, Novicevic and Speier, 2000) The balance between the firms technological development and the consortium's strategic orientation facilitates the acquisition of competencies. (Mothe and Quelin, 2000) A strategic-oriented system model that incorporates information scanning-refining-reporting into manufacturing automation and control system is being studied. (Xu and Kaye, 1997) The proper strategic orientation can be regarded as affecting its external

configuration, visible to the market, or only the internal one, transforming the time advantage into a cost one. (De Toni and Meneghetti, 2000)