

3 Models of Organisational Learning

In addition to the literature on best practice behaviours for Organisational Learning (OL) discussed in the previous chapter, a number of researchers have proposed different models to conceptualise Learning Organisations in order to explain the nature of OL. Any model of Organisational Learning should be used with caution, however, until there is greater consensus as to the theory and definitions of OL, backed by empirical research.

Models of OL are presented with models of the Learning Organisation (LO), because LOs operate OL (Tsang, 1997). Tsang (1997) suggests that a model of a Learning Organisation is a model of OL. Firstly two of the most cited theoretical models are presented (the OADI-SMM Cycle and the Two-dimensional Model) to give examples of how OL has been explained using models instead of OLFs. Secondly two of the most often applied models (E-Flow Model and INVEST Model) are also presented. These applied models seek to illustrate how OL might be conceptualised and how they have been developed as measures of OL in global organisations. These applied models also form the basis of subsequent interventions to develop a Learning Organisation. The reason for presenting these models as part of the literature survey is that they give a different perspective on how OL is represented and as an indication of the breadth of interpretation of this subject.

The research presented in this thesis has sought to provide a comparison with the models presented in this literature review and not to examine whether the results 'fit' current models. The research presented in this thesis, as will be demonstrated, was not to dismiss the models presented in this literature review but to build on them and the general literature on OL by applying rigorous methodology and analysis using a case study approach. The reason for taking such an approach, as discussed below and in chapter 2, is that there has been a

considerable lack of empirical research in OL and the majority of it is anecdotal and theoretical.

3.1 Individual and Organisational Learning: An Integrated Model

The first theoretical model of OL presented here is the OADI-SMM Model which stands for Observe, Assess, Design, Implement – Shared Mental Models (Kim, 1993). The OADI-SMM Model is used here as it has been frequently cited in the literature in an attempt to explain OL. There is no evidence in the literature illustrating the application of the OADI-SMM Model in organisations and interventions thereafter. Moreover, there is no evidence that the OADI-SMM Model was derived using empirical research.

In order to achieve double-loop learning, Argyris & Schön (1978; 1996) suggested that the individuals within an organisation need to have a common understanding of the espoused theory of action and the theory-in-use within the organisation. These individuals then may have shared mental models - SMMs – (Kim, 1993; Senge, 1990). Before understanding how individual learning and Organisational Learning can be put together, it is important to consider how individual learning takes place. Kim (1993) suggested the OADI-SMM Cycle is illustrated in Figure 3.1. The OADI Cycle comprises the following stages: events or experiences are reflected upon and conclusions and/or hypotheses are arrived at; these give rise to concepts and the individual's mental models of the world. The models can then be tested against reality. The learning cycle begins again with the observation of these experiments and their results.

The OADI Cycle is one of conceptual and operational conditioning that informs, and is informed by, mental models. What is not included in Kim's model, however is action (behaviour) as an outcome of learning. The OADI Cycle of individual learning is applied by Kim (1993) to explain how individual learning, SMMs, single-loop and double-loop learning are integrated to give a model of Organisational Learning.

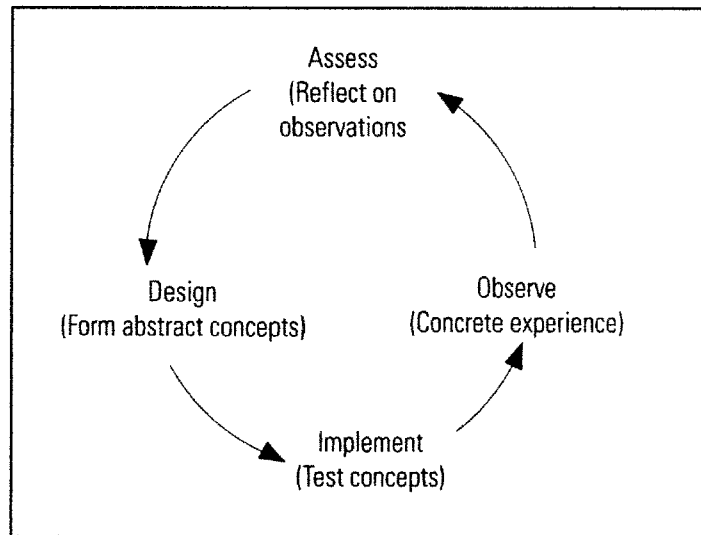


Figure 3.1: OADI Cycle of individual learning (Kofman, 1992)

The integrated model of Organisational Learning is the OADI Cycle SMM component - shared mental model (Kim, 1993) given in Figure 3.2. The integrated model of Organisational Learning organises the elements discussed thus far into a cohesive framework. The OADI-SMM Cycle is used because of the importance of SMMs; they are important because “the mental models in individuals’ heads are where a vast majority of an organization’s knowledge (both know-how and know-why) lies” (Kim, 1993; p. 44) and “...The shared mental models are what make the rest of the organizational memory usable” (Kim, 1993; p. 45).

In the context of OL, the economic environment and competitive advantage, organisational memory cannot be static (that is, it cannot reside in the ‘paperwork of the organisation’). Organisational memory must be active; that is, constantly changing at the individual level, with information shared at this level producing concomitant change at organisational level, all powered by changes in the economic environment. The OADI-SMM Cycle shows the paths necessary to

achieve this. The model incorporates both single-loop and double-loop learning for both individual and organisational levels.

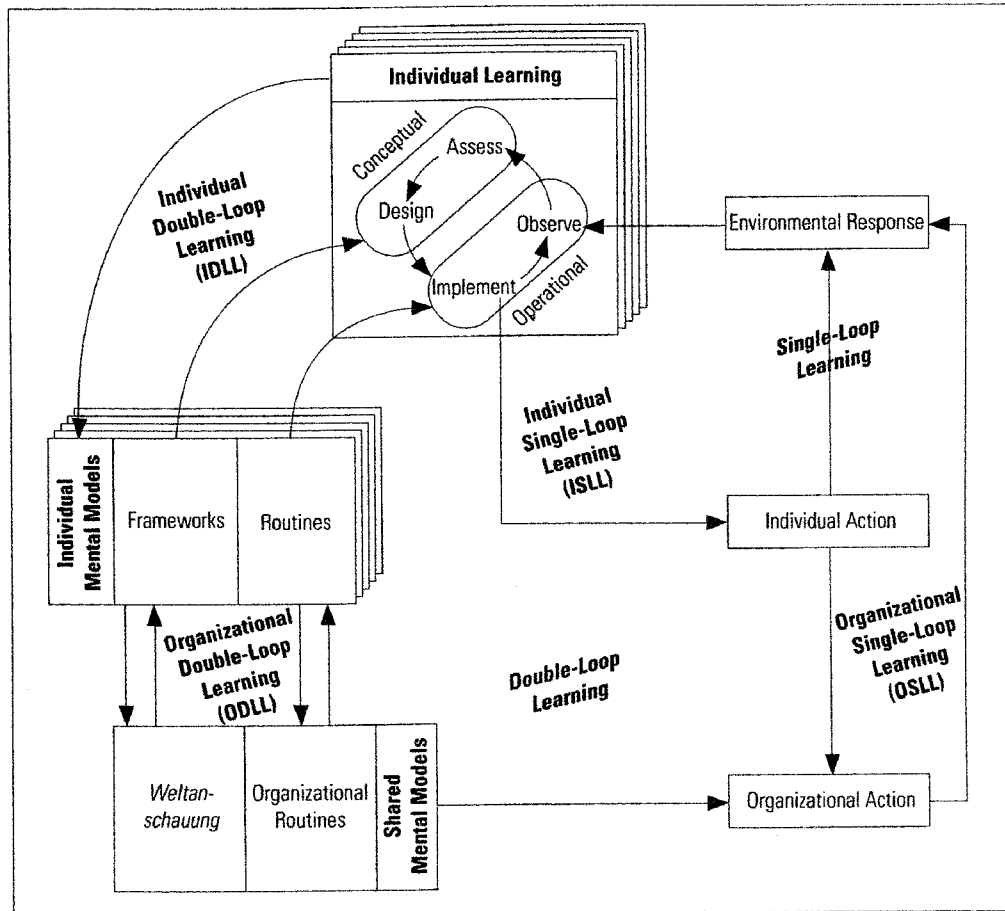


Figure 3.2: OADI-SMM Cycle model (Kim, 1993)

The model is based on recognised psychological principles of learning, and integrates learning process and learning outcome at both the individual and organisational level. In the model, individual single-loop learning is characterised by processes through which individual learning changes individual action at an operational level (know-how) in response to changes in the environment. The environmental response is observed, but conceptual (know-why) changes do not result in changes in mental models and the response to the environment is the same. Even if environmental changes differ, it suggests that there is a different stimuli/same response pattern, analogous to that described in section 1.1 (Weick,

1991). At the conceptual level the individual may act on the environment to maintain the same response.

Double-loop individual learning involves the OADI process and results in changes in individual mental models. Individual frameworks (the methods used by individuals to solve an organisational problem) are changed, affecting conceptual learning. Changes in conceptual learning then result in changes in frameworks, which lead to new ways of looking at the world. Routines are changed, individual actions implemented, the results of these actions observed, and the OADI cycle continues. The mental models are changed, revealing new frameworks and routines, and an understanding of how the routines fit within the new frameworks.

Organisational single-loop learning in the OADI-SMM Cycle is shown as an extension of individual single-loop learning, where individual action becomes organisational action which in turn feeds back into environmental response. It then re-enters the OADI Cycle. Kim (1993) did not explain what constitutes organisational action. The assumption is made that it is the behaviours and standard operating procedures that implement the organisation's strategy and assumptions.

Organisational double-loop learning occurs when individual mental models become shared mental models at all levels within the organisation and include *weltanschauung* (the organisation's view of the world, including knowledge about the world) and its organisational routines. The definitions of *weltanschauung* and organisational routines are limited. The assumption is made in this thesis, based on Kim's (1993) research, that *weltanschauung* includes the organisation's knowledge and view of the world, together with assumptions it makes about it for competitive advantage. From its view of the world, the organisation develops the mission, strategy, organisational routines and assumptions it needs to achieve its vision. The strategy and assumptions, with their underlying values and norms, are shared across the company, giving rise to

shared mental models (Argyris & Schön, 1996; Senge, 1990; Ulrich, *et al*, 1993). From the SMMs the conceptual and operational knowledge of the individuals changes and in Organisational Learning terms individual action becomes collective and is expressed as organisational action. Individual learning then becomes team learning.

It is unclear how OLMs and OLFs would fit into the OADI-SMM Cycle, and further research on this is required. Research on validation or application of the OADI-SMM Cycle is not available. Kim (1993) acknowledged that the OADI-SMM Cycle does not describe how group effects drive OL. Furthermore, organisational inquiry at the individual or organisational level is not included in the model, because as described above, it is an important factor in double-loop learning. Nevertheless, the model provides a useful starting point in conceptualising OL and the processes involved. Types of Organisational Learning now need to be examined in the context in which they take place to provide a clearer account of OL.

3.2 The Two-dimensional Model of Learning Organisations

Carré & Pearn (1992) proposed a Two-dimensional Model of Learning Organisations and was intended as a tool to categorise an organisation in terms of the Organisational Learning taking place. Carré & Pearn (1992) suggested two dimensions to a Learning Organisation. Firstly, the extent to which the general environment (including structure and culture) of the organisation enhances, supports and sustains the learning of all employees. Secondly, the extent to which the workforce as a whole is confident, motivated and competent to learn. Carré & Pearn (1992) stopped short of discussing other organisational behaviour issues such as job satisfaction and organisational commitment in relation to Organisational Learning.

The Learning Organisation can be measured on both dimensions, resulting in one of four quadrants: a Stagnated Organisation, a Frustrated Organisation, a Frustrating Organisation and a Learning Organisation.

Carré & Pearn (1992) however do not present any empirical evidence as to how their model was derived. There is no validation data and no case study evidence is presented in the literature. The Two-dimensional Model is presented here as it has been frequently cited in the literature to conceptualise OL in Learning Organisations.

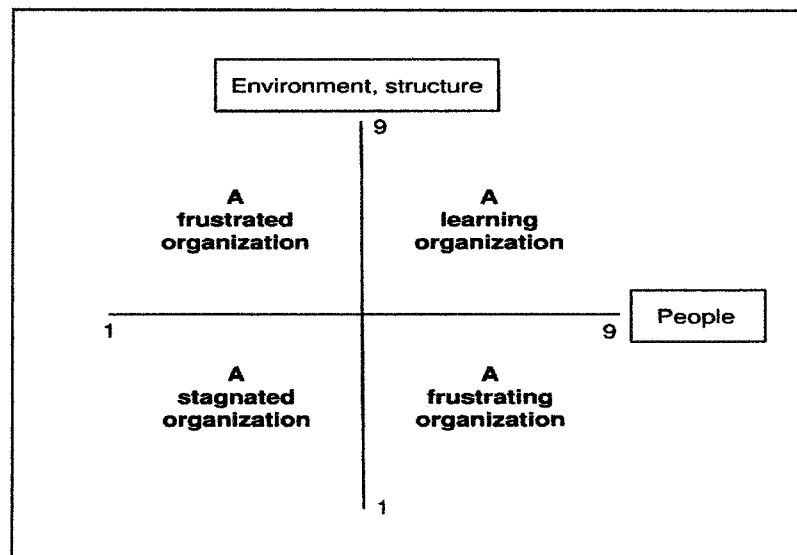


Figure 3.3: Two Dimensional Model of Learning Organisations (Carré & Pearn 1992)

According to the Two-dimensional Model (Carré & Pearn, 1992, Figure 4.4 above), a Stagnated Organisation relies solely on past experience for present solutions. All decisions come from management, and the workforce is passive and uninvolved; the organisation does not want to change and adapt. In the Stagnated Organisation there is no encouragement or incentive in the system and there are few, if any, opportunities for self-development. The employees are not motivated to learn and adapt; the structure and general environment of the organisation inhibit learning (Carré & Pearn, 1992).

A Frustrated Organisation thinks it is doing the right things, but the employees are fearful and lack confidence in their ability to change and adopt new working practices. This is despite the fact that management exhorts and encourages, provides access to open learning and has removed practical barriers to adaptation and change. In other words, all the right things are being done by management, but there is or has been little involvement of the people most affected in the design of the process. Their fears and needs, and their ability to contribute constructively to the design of solutions, have been ignored.

A Frustrating Organisation fails to recognise that its employees are skilled, energetic and keen to take on new learning. The system or structure provides little opportunity for self-development, or access to training or open learning. Formal training has low status and low priority for management. There is a wide gulf between the managers and the managed.

A Learning Organisation has a strong vision of its future. All individual and group potential for learning and adapting at all levels is being fully utilised in the interests of setting, meeting and reviewing organisational objectives. Environmental and structural blocks to learning have been identified and removed. Strong enhancement and structural support for sustained continuous learning have been put in place at all levels.

The Two-dimensional Model does not give enough detail and is a very broad organisational development tool. It offers 'catch-all' quality to the two dimensions, which suggests the need for a more detailed look at the issues and factors pertinent to Learning Organisations.

3.3 The E-Flow Model of the Learning Company

Pedler *et al* (1997) proposed the E-Flow (Energy Flow) Model of the Learning Company in order to illustrate how it is relevant to organisations and to explain what a Learning Organisation might look like. The E-Flow Model has been included as part of the literature review as it has been applied in global organisations such as ABB, Billiton, Canon, HSBC, Marks & Spencer, Motorola, Pilkington, Rover and SEMCO to survey the organisations and to implement changes to work towards being a Learning Organisation. The E-Flow Model has also been included because it was developed using some, albeit limited, empirical research thereby giving the reader a further appraisal of the breadth of approaches used to develop models of OL. The E-Flow Model is composed of Eleven Characteristics. The Eleven Characteristics of the E-Flow Model were derived using a limited sample of 161 participants, all of whom were managers and therefore not representative of workforces in organisations today.

In order to develop the E-Flow model of Learning Organisations, eleven characteristics of the Learning Organisation were identified by Pedler *et al* (1997) and placed in a model as “a simplified representation of how the various parts of the organisation interact and fit together” (Pedler *et al* 1997, p. 17). Before discussing the Model, the Characteristics are detailed. The Eleven characteristics were developed through interviews with managers in the sample and the literature on OL and LOs.

3.3.1 The Eleven Characteristics of the Learning Organisation

The Eleven Characteristics suggested by Pedler *et al* (1997) were drawn from research conducted by Revans, Argyris, Schön and Senge. Pedler *et al* (1997) suggested that the ideal Learning Organisation would exhibit all these Characteristics and that each organisation would interpret and combine the Characteristics in their own way.

3.3.1.1 A Learning Approach to Strategy

A Learning Approach to Strategy occurs where policy formation (together with its evaluation, implementation and improvement) is structured to facilitate learning, permitting experimentation with new ideas and subject to continuous feedback (Pedler *et al*, 1997). A Learning Approach to Strategy includes deciding on a course of action in terms of the collective direction of the organisation and implementing it. To assess new ideas, the organisation typically takes controlled risks, experimenting with pilot trials in different areas of the business before making a full commitment. The organisation measures and monitors the results of the experiment, using feedback to check whether it is working and responding to early signs of warning if it is not (Pedler *et al*, 1997).

3.3.1.2 Participative Policy Making

With Participative Policy Making, all employees of the organisation, together with suppliers, customers and business partners, contribute to and participate in policy making. The more people that are involved in policy making, the greater and more widespread the resulting consideration of how a policy will affect the business and contribute to planning policy implementation. Participative Policy Making may increase commitment, ownership and willingness to implement the plan (Pedler *et al*, 1997).

3.3.1.3 Informating

Informating in the Learning Organisation refers to the use of information technology not just to automate, but to make information widely available to all staff in order to empower them to act on their own initiative (Pedler *et al*, 1997). The aim of Informating is to create 'public domain' databases which speed information flow to any point in an organisation. The system is designed to be user-friendly and to encourage learning. Informating supports Participative Policy Making by making the organisation transparent.

3.3.1.4 Formative Accounting and Control

Formative Accounting and Control is a particular form of Informating, in which budgeting, reporting and accounting systems are designed to assist all employees to learn how finance works in the business (Pedler *et al*, 1997). The emphasis is on auditing, controlling and accounting for one's own actions.

3.3.1.5 Internal Exchange

Internal Exchange occurs when all internal units and departments see themselves as interrelated and are each others' customers and suppliers, contracting with, and learning from, other departments (Pedler *et al*, 1997). Pedler *et al* (1997) did not discuss whether this process of learning from other departments merely contributes to, or actually constitutes, Organisational Learning. Internal Exchange results in an organisation with a flat structure, where co-ordination and co-operation take place as the norm (Pedler *et al*, 1997). Individuals and departments exchange information on expectations, and give feedback on goods and services received. A regular dialogue is important.

3.3.1.6 Reward Flexibility

Reward Flexibility occurs when there is "greater participation with which comes a need for more flexible and creative rewards. High Reward Flexibility means that there are alternatives in both monetary and non-monetary rewards to cater for individual needs to reinforce learning and improve performance" (Pedler, *et al* 1997; p. 16). The Learning Organisation seeks to uncouple the association of development with promotion. The Learning Organisation seeks to legitimise individual and collective learning efforts that are not aimed at promotion.

3.3.1.7 Enabling Structures

Enabling Structures occur when roles, departments, organisation charts, procedures and processes provide individual and business development as well as

a framework for functioning together as an organisation (Pedler *et al*, 1997). Enabling Structures are seen as flexible structures that can easily be changed to meet job, user or innovation requirements (Pedler *et al*, 1997). The emphasis is on adaptability and flexibility.

3.3.1.8 Boundary Workers as Environmental Scanners

Pedler *et al* (1997) suggested that Boundary Workers as Environmental Scanners are found where those members of an organisation who have contacts with external users, customers, suppliers, clients and business partners carry out Environmental Scanning. The principle is that every member of the organisation is involved in collecting, receiving and using information from outside the organisation (Pedler *et al*, 1997). Processes are in place for the information to be brought back and shared across the organisation.

3.3.1.9 Inter-company Learning

Inter-company Learning is very similar to Boundary Workers as Environmental Scanners. In Inter-company Learning the organisation learns through joint ventures, training, shared research and development and secondment to other organisations, as well as other learning alliances (Pedler *et al*, 1997). Learning can also occur through benchmarking and from competitors.

3.3.1.10 A Learning Climate

A Learning Climate is one in which the Learning Organisation seeks to promote and maintain a culture and climate that encourages learning. Pedler *et al* (1997) state that in the Learning Organisation all managers see their primary task as facilitating the employees' experimentation and learning through experience, questioning, feedback and support. Both managers and senior managers should lead by example and demonstrate their willingness to learn by requesting feedback and questioning their own assumptions and actions (Pedler *et al*, 1997). The organisation seeks to export this Learning Climate to its business partners.

Mistakes are not covered up but dealt with in a constructive manner and ways of improving are identified (Pedler *et al*, 1997).

3.3.1.11 Self-development Opportunities for All

Self-development Opportunities for All are found where resources and facilities for self-development are available to all members, especially those in front line roles, such as customer services (Pedler *et al*, 1997). Employees are encouraged to take responsibility for and manage their own learning and development. Learning starts from the job itself, which is designed to be developmental. Managers encourage all employees to learn from their jobs. Learning Organisations have project teams, action learning groups and quality circles to encourage and maintain learning (Pedler *et al*, 1997).

3.3.2 The E-Flow Model

An organisation is made up of people. Pedler *et al* (1997) viewed the Learning Organisation as an organic entity, living and changing. The E-Flow model is built up of a series of double-loop flows of energy. The double loops are illustrated in Figure 3.4 below. The energy represents information, resources, consciousness and attention. These double loops seek to integrate the 11 Characteristics.

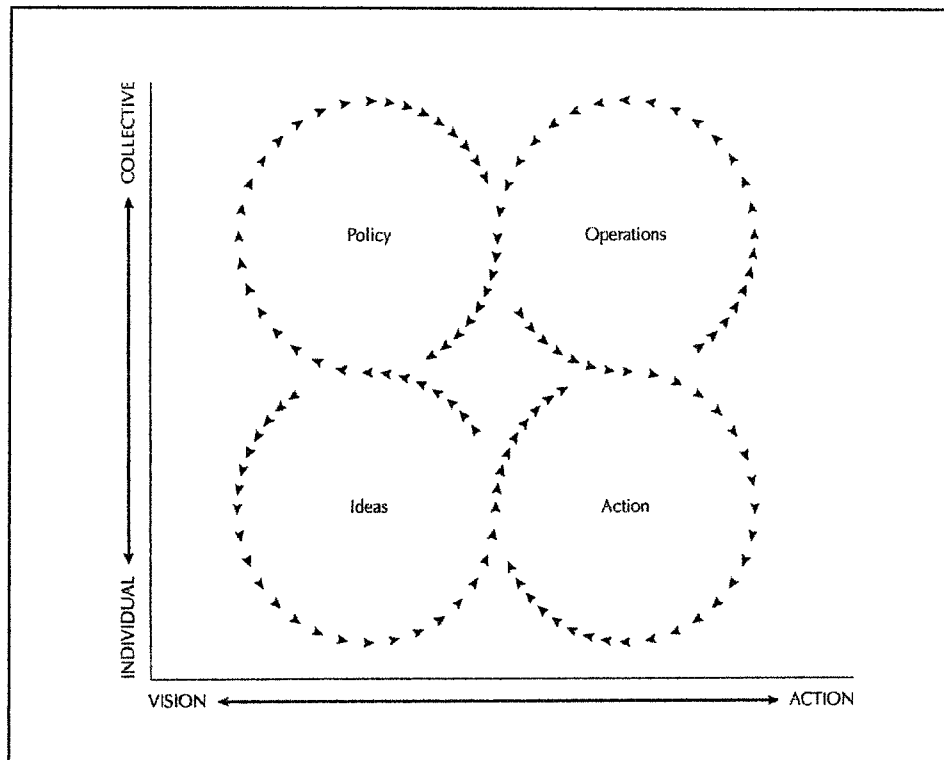


Figure 3.4: E-Flow Model of the Learning Company (Pedler *et al* 1997)

The individual learning cycle of action, experience, observation, reflection and theorising (Kolb, Rubin & McIntyre, 1971) is the process underlying Characteristics 10 and 11 – *A Learning Climate* and *Self-development Opportunities for All*. This individual process was mirrored at a collective level in Characteristic 1 – *A Learning Approach to Strategy*. *A Learning Climate*, *Self-development opportunities for All* and *A Learning Approach to Strategy* placed together, gave two double loop flows of energy or consciousness. Pedler *et al* (1997) suggest the double loop flows illustrate how feedback from action and operations is the source of individual and group learning. Characteristic 2 – *Participative Policy Making* – involved debate and dialogue linking policy with the ideas and values of all the people in the organisation. Characteristics 4, 5 & 7 – *Formative Accounting and Control*, *Internal Exchange* and *Enabling Structures* – were about implementing and carrying out operations and management plans, and getting feedback from individuals as they implemented these plans. The flow of energy from individual to collective and *vice-versa* ensures that individual action promotes collective operations, which in turn ensure that people work

together effectively. This, Pedler *et al* (1997) suggested, increases individual motivation and organisational commitment, though Pedler *et al* (1997) did not provide evidence for this assertion.

The E-Flow Model is one of individual and organisational levels of learning, where *Ideas* and *Action* operating at the individual level are linked with *Policy* and *Operations* at the collective (organisational) level, with an interaction between *Ideas* and *Policy* and *Action* and *Operations* delineated by the arrows in Figure 4.3 above. Characteristics 3, 5 & 6 (*Informating*, *Internal Exchange* and *Reward Flexibility*) are what make these flows dynamic and ensure that learning occurs. In order to include the outside world of the organisation, Characteristics 8 & 9 (*Boundary Workers as Environmental Scanners* and *Inter-company Learning*) allows interaction with, and learning from, the external environment. Pedler *et al* (1997) point out that these include suppliers, users, competitors and other agencies who work with the organisation in the delivery of a service or product.

The advantage of the E-Flow Model is that it attempts to take an integrated approach to OL. The E-Flow Model seeks to demonstrate what a Learning Organisation looks like and covers the levels of learning discussed in section 1.1 above. However, it does not give details or model the interaction within and between the individual and organisational levels of learning. It does not present a behavioural or cognitive perspective on OL, and the Eleven Characteristics are mechanisms which may require a number of competencies to support them. The E-Flow Model may however, suggest how competencies for Organisational Learning interact. Although the Characteristics add value to the concept of OL there is a flaw in Pedler *et al*'s (1997) research methodology: their sample was composed solely of managers (n=161) and did not include non-management staff. The data used to develop their theory is, therefore, from a management perspective only. Pedler *et al* (1997) did not define 'manager' or give details on their sample, for example whether the sample included a number of levels of manager: nor did they specify industry sector or department.

The Eleven Characteristic questionnaire used to assess organisations discussed a number of aspects in Human Resourcing that have not been discussed as a component of Organisational Learning in the literature. For example Participative Policy Making, Informing, Formative Accounting & Control, and Reward Flexibility have not been discussed or proposed by other authors in the OL literature. It is argued that these Characteristics that Pedler *et al* (1997) propose as OL are general Human Resourcing issues and their questionnaire to measure OL appears to be a more general employee opinion survey rather than one to assess a company as a Learning Organisation. This suggests that a more rigorous methodology should be used to develop a survey of OL and that the components of such a survey must reflect as far as possible those aspects that are considered to be OL.

3.4 The INVEST Model of Organisational Learning

Pearn, Roderick and Mulrooney (1995) proposed a Six-factor model of Learning Organisations that they derived from the Two-dimensional Model of Learning Organisations (Carré & Pearn, 1992) discussed above. Pearn *et al* (1995) expanded the two dimensions (environment and people) into six: Inspired Learners, Nurturing Culture, Vision of the Future, Enhanced Learning, Supportive Management and Transforming Structures. The acronym for this is INVEST, hence the name INVEST Model. Figure 4.5 below illustrates the INVEST Model of Learning Organisations.

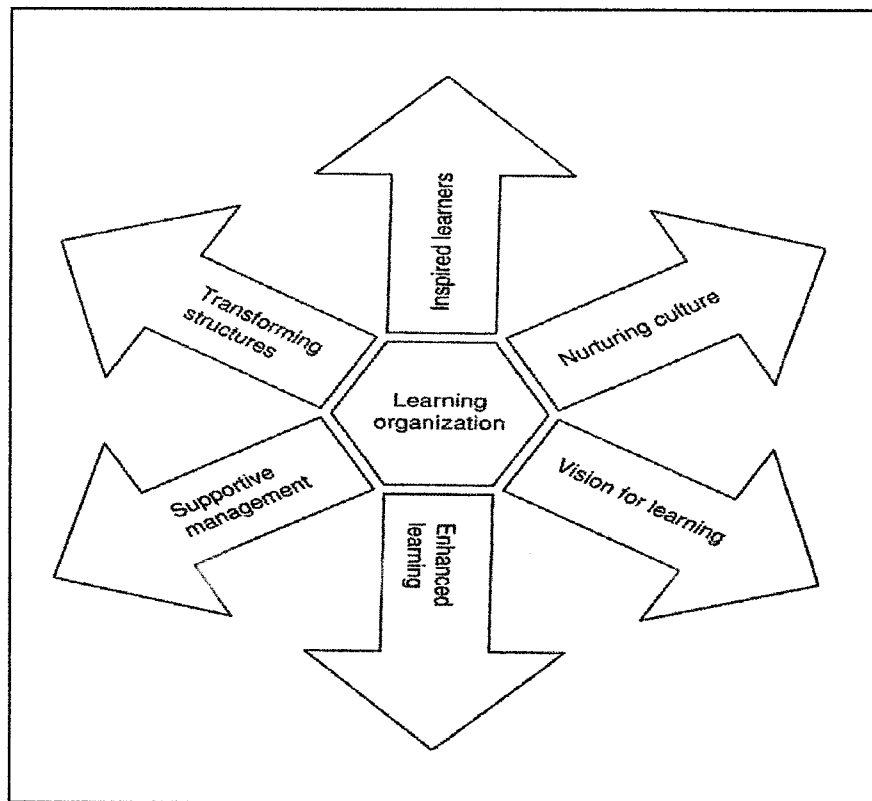


Figure 3.5: The INVEST Model of Learning Organisations (Pearn *et al*, 1995)

The INVEST Model has been included as part of the literature review as it has been applied in global organisations such as 3M, British Airways, British Nuclear Fuels, Courage Breweries, IBM, Kodak, National Westminster Bank, Royal Dutch Shell, Southern Life Assurance. The empirical evidence for how the INVEST Model was derived has not been published.

3.4.1.1 Inspired Learners

Pearn *et al* (1995) suggested that Inspired Learners exist where the workforce is motivated to learn continuously and is committed to self-development, seizing opportunities for learning from experience.

Specifically, individuals see the necessity of continuous learning and development in terms of their contribution to continuous improvement and enhanced competitive advantage. Each employee takes responsibility for her

learning and development and is confident in doing so. Employees are encouraged to learn from their mistakes. Employees are encouraged to challenge the status quo and ask questions.

3.4.1.2 Nurturing Culture

Pearn et al (1995) suggested that Nurturing Culture exists where employees value, encourage and support both continuous learning and challenges to the status quo, and where they question assumptions and establish new ways of doing things. Testing, experimenting, and learning from mistakes are encouraged and valued.

Specifically individual, group and total Organisational Learning are valued as a prime asset. There are opportunities to experiment with ideas without suffering serious consequences. It is important that there is a general climate of mutual respect, openness and trust. Learning from everyday experiences, from shared information and from other people are valued activities. Continuous improvement should be the norm.

3.4.1.3 Vision for Learning

Pearn et al (1995) suggested that Vision for Learning is where there is a shared vision which includes the organisation's capacity to identify, respond to, and capitalise on opportunities. Part of this vision recognises the importance of learning at individual, group and system level to enable the organisation to transform itself continuously and to survive in a dynamic economic environment.

Specifically there is a clear mission, vision and strategy that is understood by all employees and to which they are committed. The vision should emphasise the importance of learning at all levels and the need for continuous transformation to cope with changes in the business.

3.4.1.4 Enhanced Learning

Pearn et al (1995) suggested that Enhanced Learning exists where an organisation has put in place processes and systems to enhance, encourage and sustain learning among all its employees.

Specifically Enhanced Learning includes mentoring and the development of Systems Thinking (Senge, 1990). Distance learning and action learning are used routinely throughout the whole organisation. The organisation is part of a learning consortium, in which it works closely with other non-competing organisations in order to achieve best practice. The sharing of mental models, consistent with the OADI-SMM Model of Organisational Learning (Kim, 1993) and with Senge's theory of shared mental models (Senge, 1990) is crucial to Enhanced Learning.

3.4.1.5 Supportive Management

Pearn et al (1995) suggested that Supportive Management exists where managers believe that the result of encouraging and sustaining learning is improved performance across the organisation. Managers see their role as facilitating and coaching, rather than controlling and monitoring.

Managers are receptive to new ideas. They constantly help the organisation and everyone in it to achieve the vision of the future. Everyone is trusted to perform to the level of his or her competence with the minimum of supervision. Managers actively support employees in their bid to learn and develop continuously. Managers genuinely believe that if employees are involved in decision-making at all levels of the organisation's hierarchy, organisational performance will be improved. Part of the manager's role is to coach, develop and empower employees continuously, rather than control and monitor them. Managers should encourage employees to reflect and review their ideas and to learn from mistakes. Managers share their thinking and knowledge with employees and encourage them to do the same.

3.4.1.6 Transforming Structure

Pearn *et al* (1995) suggested that a Transforming Structure exists where the organisation works to facilitate learning between different levels, functions and sub-systems, permitting rapid adaptation and change. It is organised in a way that encourages and rewards innovation, learning and development.

The encouragement of learning is the responsibility of all managers. Work is organised into self-managed or self-directed teams with a high degree of autonomy and control over their immediate behaviour. Work is defined in terms of objectives and assignments rather than jobs, tasks and rules. The organisation ensures that functional boundaries do not prevent the continual sharing of knowledge and ideas across these boundaries. Customer focus is given high value throughout the organisation. Cross-functional working is the norm.

The INVEST Model specifies six factors which are essential to a Learning Organisation. Using these criteria, an organisation's credentials as a Learning Organisation can quickly be established. The INVEST Model does not however, give details of key competencies that are necessary to become a Learning Organisation and support Organisational Learning. Pearn *et al* (1995) did not indicate how the six factors of the INVEST Model are interrelated or how they interact with one another. The INVEST Model however, interprets OL as of training and development. All the interventions that Pearn *et al* (1995) discuss in the organisations that have applied the INVEST Model were focused entirely on enhancing the training and development function to improve organisational performance rather than how the literature presented in chapter 1 and 2 discuss OL. Again, as discussed in section 3.3.2 above, a rigorous methodology is required to identify the components of OL and develop a corresponding questionnaire to assess the aspects of OL that were identified in chapter 2 so that training and development is not the only focus of it. It is acknowledged that training and development is important for OL but a number of other aspects are also important.

3.5 The Learning Organisation

The models above discuss Organisational Learning and Learning Organisations. The Learning Organisation (LO) is simply one which is good at Organisational Learning (Tsang, 1997). It is an organisation that is able to encode inferences from experience into routines that guide behaviour (Levitt & March, 1988) and to facilitate adaptation to changes in its environment (Hedberg, 1981). Garvin (1993; p. 80) defined a Learning Organisation as “an organization skilled at creating, acquiring and transferring knowledge, and at modifying its behavior to reflect new knowledge and insights”.

Companies that consciously plan and construct structures and strategies to maximise Organisational Learning are called ‘Learning Organisations’ (Dodgson, 1993). Pedler *et al* (1997; p. 3) defined the Learning Organisation as ‘an organisation which facilitates the learning of all its members and continually transforms itself’. Pedler *et al* (1989) suggested that a Learning Organisation has a climate in which the organisation’s individual members are encouraged to learn and to develop their full potential. The organisation’s learning culture includes customers, suppliers and stakeholders. Following the strategic management approach discussed above, Pedler *et al* (1989) also suggested that Learning Organisations place human resource development strategy at the centre of business policy. Learning Organisations continually undergo a process of organisational transformation (Pedler *et al*, 1989; Pedler *et al*, 1997).

Senge (1990; p. 14), defined Learning Organisations as “organisations where people continually expand their capacity to create the results they truly desire, where new and expansive patterns of thinking are nurtured, where collective aspiration is set free, and where people are continually learning how to learn together”. The philosophy of the LO is that individuals and groups of individuals at all levels in the organisation contribute to its success because every individual is committed to its vision. Moreover, the LO is possible because, as

discussed in section 1.1 above, individuals learn continuously. In organisational terms, to achieve and maintain success requires the process of learning.

In order to achieve a LO, Senge (1990) used the systems dynamics approach to building a LO (Argyris & Schön, 1996). To build a LO Senge (1990) identified five “component technologies”. These are: (1) Systems Thinking, where employees have a “conceptual framework that [sees] all parts [within the company] as interrelated and affecting each other” (p. 7). Systems Thinking is crucial to the development of other component technologies in order to achieve a high level of OL. It is also the basis on which to build a Learning Organisation. (2) Personal Mastery is defined as “a special level of proficiency...in which individuals become committed to their own life long learning” (p. 7). (3) Mental Models are “deeply ingrained assumptions, generalizations, or even pictures or images that influence how we understand the world and how we take action” and in the Learning Organisation “these may be pervasive, especially when shared within the organisation” (p. 8). (4) Shared Vision is defined as the company’s sharing “a picture of the future it wants to realise” with its employees and its “employees sharing their visions of the future of the organisation” (p. 9). (5) Team Learning looks at “the ability for individuals collectively to produce extraordinary results and allow individual members to grow more rapidly than they could otherwise...Team learning may be more important in a company than individual learning because without it, the organization wouldn’t learn” (p. 10). These component technologies are investigated further in this study. Although these component technologies have contributed to, and have been influential in, the literature on the LO, there are no empirical studies that have validated these concepts. Furthermore, the component technologies are very general assumptions. How the component technologies are applied in the LO given the broad background of assumptions, values and views of the LO is not clear. Indeed authors from different disciplines stress different features of the ideal LO and how the organisation learns.

Advocates of sociotechnical systems for example, view the Learning Organisation as one in which there is collective participation by teams of individuals in developing new patterns of work (Argyris & Schön, 1996). The emphasis is on work redesign, with senior management encouraging an environment in which teams can engage in collective participation. It facilitates the development of an organic structure. Those who take an organisational strategy perspective, view the company in terms of competitive advantage. Organisational strategy is seen as an area which is dynamic and which therefore requires continuous development of the organisation's policies and practices which operate as a function of the markets in which the organisation operates, together with its technologies and its human capability. In terms of production, the LO concept addresses continuous improvement in the quality of products and production processes, and in the performance of the organisation as a whole through the process of learning (Hayes, Wheelwright, & Clark, 1988). The economic development application of the concept of an LO addresses the organisation's capacity to develop itself by listening to its employees and its customers, and by knowing what its competitors are doing.

What is clear is that the Learning Organisation has two facets. First, it recognises that its human capital as the key to sustained competitive advantage. Second, it believes passionately in OL, promoting and implementing it skilfully. It will therefore place OL at "the nexus of strategy, structure, culture and cognition" (Lundberg, 1995) as a process of organisational development.