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**TOWARDS A MODEL FOR
THE EFFECTIVE PROVISION OF
INFORMATION TO MANAGERS**

by

Gordon Arthur Cairns

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A Thesis Submitted For The Degree Of Master Of
Arts Awarded By The University Of Durham, This
Research Having Been Conducted At Durham
University Business School And Completed In
July 1990.



DEC 1990

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GORDON A CAIRNS
JULY 1990

SUMMARY

The purpose of this research is to produce a model for the effective provision of information to managers, and to evaluate its effectiveness by a survey.

In so doing, it examines the qualities necessary for an effective model of information provision for managers in organisations affected by change, and the variables which influence information essential for managerial tasks. The sources of these variables are : the context of information for the purposes for which it is intended; the relationship between individuals and their organisations; and the types of information most useful to managers.

The conclusions reached from this reading, research and thinking lead the author to the identification of seven key principles on which the model offered on page 100 of this research is based. Their significance to the model is explained and followed by a survey whose purposes are : to validate these seven key principles; to advance the knowledge of the author about the extent to which managers feel they are provided with the information they need; and to review the value of the model for information provision provided by this thesis with respect to the results obtained.

In order to achieve this, an information audit has been developed which takes the form of a questionnaire given to three groups of managers : one group of various managers from a local building society' one group of managers from different organisation and with different jobs; and a final group of managers from different organisations but with the same job. This spread allowed the principles of the model to be evaluated from as wide a range of perspectives as possible, and the results of the survey include an analysis and commentary directed towards a critical appraisal of the practical usefulness of the model to organisations seeking to provide their managers with information of the highest possible quality for their managerial purposes.

To the author, the significance of the thesis lies in the contribution it makes to the philosophy of information provision as a prerequisite of the establishment of information systems which will enable organisations to maximise their return from the costs of information provision in terms of enhanced business success.

Chapter One

An Introduction to this Research

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Chapter One

The purpose of this research is to produce a model for the effective provision of information to managers.

The provision of information to managers is an area which demands attention because it impinges on the decision making process, which, in turn, is at the heart of the organisation's performance in its market place. This is the way in which the successes of an organisation is judged by its customers, competitors and its members.

1.1 Research Methodology

The research methods employed by the author of this thesis include:

1. A study of the literature relevant to the effective provision of information to managers.
2. An analysis of the main threads of argument and opinion drawn from the literature.
3. An identification of the key variables which form the titles of Chapters Two to six, and their associated variables which form the sub-sections of these Chapters.
4. The development of a tentative model of information provision.
5. The conducting of a small field study designed:
 - a) to extend the author's understanding of present information provision to managers in three related groups.
 - b) to ascertain the attitudes of managers in these groups towards the information with which they are currently provided.

1.2 The Structure Of This Thesis

In the pursuit of this aim the author was led during his study of the literature on the subject to recognise that many before him had tried and failed to produce such a model.

It rapidly became apparent that any study of managerial information could include an infinity of variables since information is the vehicle for every activity and a necessary requirement of any organised activity whatever its purpose, process or outcomes.

Following his reading of the literature in the area the author decided to focus on the following key variables:-

- a) The influence of context on the provision of information.
- b) Organisational culture as a determinant of information provision.
- c) Information "fit" as a determinant of the usefulness of information to managers.
- d) The relationship between individuals and their organisation.
- e) The types of information most useful to managers.

These represent a cross section of the major topic areas which emerged from this reading.

Chapter 2 of this thesis examines the influence of context as a source of variables affecting the provision of information to Managers, addressing issues such as: the relationship between information and organisational tasks; and the influence of information provision on the goal of the organisation, organisational flexibility, communications capability, networks and success. The culture of the organisation as a determinant of information provision and usage and its influence on leadership and corporate vision will be discussed in Chapter 3 along with the influence of the organisation's life cycle on information providers.

These lead to a study of the variable of information, "fit", in Chapter 4 not only in the sense of fitness for the purpose for which it is intended but also the extent to which this fitness is affected by time and the changes it brings, and by changing relationships between individuals and their organisations.

A closer examination of the relationships between individuals and their organisations follows in Chapter 5 where issues like information provision and individual autonomy, interpersonal variables and their influence on information provision are studied.

Chapter 6 gives the types of information most useful to managers: here factors such as the users perception of valuable information, determinants of information quality, the survival factor, in information provision and the role of information provision in the promotion of organisational synergy will be discussed.

Chapter 7 offers the model for the effective provision of information to managers together with an explanation of its major features.

Chapter 8 deals with the construction, delivery and analysis of a questionnaire designed to add to the authors personal knowledge of the information needs of managers and to compare and contrast with the literature quoted in the text of this thesis.

The final chapter will offer the author's assessment of what has been achieved by the research he has undertaken and point the way forward.

The author's model of information provision which is presented in Chapter 7 lays no claims to being "the solution" to the challenge of ensuring that each manager has all the information and only the information that he/she needs to bring about optimum organisational performance. It does, however, represent an attempt by the author to help those whose responsibility it is to face that challenge to focus more clearly on some of the situational and organisation variables that impinge upon it.

The quality of the managerial decision making process is heavily dependent upon the quality of the information provided for this purpose. The author believes that the controllers of this quality ought to be the end users of the information. In establishing effective information provision, demands must be placed on the users to identify that information which is most useful for their managerial purposes because each manager is a unique person operating as an author of a range of managerial decisions in his/her areas of influence. In the opinion of the author the problem is to manage those managers into a position where they take ownership of the process of providing information for their needs. They can only be placed in such a position if the process of provision is understood well enough for a strategy to be formulated. Understanding the variables affecting it will allow information provision to incorporate a recognition of the wishes of the users in the range and type of information provided for managerial purposes and so an ownership of the process of provision.

Ideally, the relationship between provision and use of information for managerial purposes would be as in Figure 1.

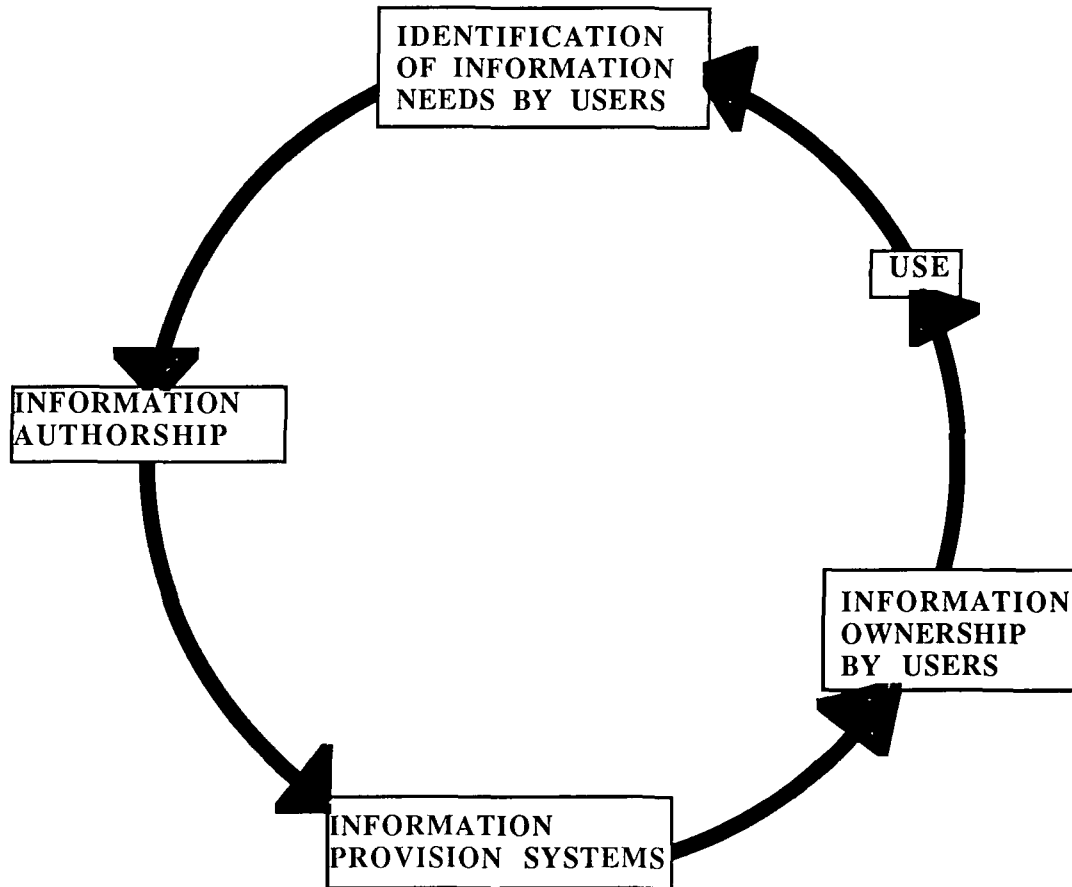


Figure 1 - The Information Provision Cycle

Here the authorship of information needs lies with the user in the first instance, and the information provision systems of the organisation in the second. Their role is to provide the information the user wants in a readily understandable form, and in an accessible and cost effective way. Only by doing this, can we move to the ownership stage which is the central challenge of this thesis. If a strategy for achieving this ownership can be developed, then it will mean that the provision of information, and the costs and efforts which it demands, will be reflected in the increased usage of provided information for managerial purposes, by the managers themselves. This is likely to mean that the quality of provided information should improve - a further benefit of the research, and a key factor in determining information usage, i.e. if what is provided is relevant

high quality, timely and easily accessible then managers will use it. There ought also to be a contribution to the quality of organisational decision-making and hence its success.

1.3 A Definition of Terms

Before considering these two issues further, the terms of the title need to be clarified so that there can be no doubt about the ways in which these are being used during the course of this thesis.

Information

The title of this research places great emphasis on "information" and so a consideration of this concept is the best starting place.

Stafford Beer (1975) suggested that the value of information was that it somehow changes the context in which it acts. He regarded information as a force for change;

"The way in which society handles the commodity of information, which is what changes us and the commodity of data which are the raw materials of information will prove critical in the good management of affairs" .P.387.

Canning (1984) regards information as a competitive weapon enabling an organisation to respond to market initiatives, and to identify new opportunities. For him the essential feature of information was that its quality and availability was critical to the organisation's viability. His work developed that of Porter (1980) who offered techniques for gaining greater understanding of competitors in order to maximise their advantage over them.

Rogers and Kincaid (1981) defined information as;

".....the difference in matter energy which affects uncertainty in a situation where choice exists amongst a set of alternatives,". P.48

This echoes the definition of Beer (1975) but also introduces the notion of actual physical observable differences as being the tangible signs of the imparting and understanding of information, i.e. the actual success of the communication process itself. For them action and information were one and the same thing as the former was a manifestation of the presence of the latter.

For a strategy of information provision to be successful there must be observable differences in managerial behaviour as a result of its implementations which results in a greater utilisation of provided information if we follow this criteria of Rogers and Kincaid (1981).

They also suggested that the truth value of information can be judged by the extent to which it is projected from the inter-personal domain to the external world of events, i.e. the extent to which it is actually seen to be enacted rather than simply being spoken about.

J Galbraith (1973) defined the word uncertainty, which Rogers and Kincaid (1981) mention in their definition, as:

"..... the difference between the amount of information required to perform a task and the amount of information already possessed by the organisation." P.5.

The discrepancy which exists between the amount of information required and the amount of information already available for the successful performance of any task is the amount of information which must be required during the actual task performance. Galbraith (1973) states that it is that information which must be acquired spontaneously during task performance which causes uncertainty in an organisation, and in a manager in the performance of his/her managerial duties. Furthermore, it is this uncertainty which tends to clog the channels of efficient organisational performance since the greater the level of uncertainty which exists the greater amount of information which must be processed during task execution which is outside the rules and programmes for task execution laid down by an organisation.

These new situations are referred to management for decision making activity on an individual basis. This is because they are in addition to the prescribed rules and, therefore, are outside the current information domain of the organisation. It is into such areas that managers are forced to go alone, and therefore use different information sources to supplement those which the organisation provides.

In such situations, information provision by the organisation to its managers is at its least effective.

Williamson (1975) suggests that it is the collision between different amounts and sorts of information held by different people in an organisation which create dissonance. In his definition of impacted information in an organisation, he says that because power is the key to importance, the discrepancies in information between the various actors in an organisation causes the haggling suspicion and general dysfunctional forces in an organisational context which detracts from the actual achievement of the organisation's goals in the long term, because it diverts effort from goal achievement into areas of suspicion and intrigue. Arrow (1969) writes;

".....the critical impacted information on the optimal allocation of risk bearing is not merely its presence or absence but its inequality among economical agents." P.55.

These definitions of information suggest five major aspects;

1. It is a force for change with the power to bring about new systems, ideologies and attitudes.
2. It is a competitive weapon, an economic good in itself, which is essential to the viability and growth of the organisation which it serves.
3. It can be actually observed in changes in behaviour patterns and other physical phenomena.

4. There exists a disparity between the information that an organisation possesses and the information necessary to perform unprecedented tasks.

These imply that the better the quality of information provided by the organisation, the less the uncertainty which the disparity in information causes when its managers are forced to operate in new untried situations. As a result there are fewer referrals and fewer numbers of enquiries to stagnate its communication systems and managerial task performance in using information for its benefit.

5. The power latent and apparent in information which when used correctly can be a significant motivating factor, is such that when its power is not understood or is misused, it can have a profoundly demoralising effect upon those within the organisation who are aware of these discrepancies.

The importance of effective information provision resides in its role as a central part of human behaviour. For Rogers and Kincaid (1987) the exchange of information is a fundamental purpose of human behaviour.

"The essence of much human behaviour is the interaction through which one individual exchange information with one or more other individuals."

P.75.

This, they maintain, is the purpose of human communication systems and the activities which are included in them. It is also the basis of the management task. They argue that the information exchange is the very basis of human and organisational purpose and the primary reason for the sophisticated systems of communication which exist between individuals;

"Shared understanding and agreement by means of communication is a prerequisite for the 'take-off' point in the rate of adoption of an innovation in a system." P.73.

Without information exchange and a communication system to enable that exchange to take place it seems, that Rogers and Kincaid (1981) are saying that organisation will not be able to survive since they will not be able to respond to new ideas, new ideologies and new methodologies of working. The author accepts as self evident, that understanding and collective action cannot take place without communication networks to transmit and receive information are created and maintained, there can be no development of a self sustaining attitude to change which is necessary in order to ensure the continued survival of an organisation.

The provision of information relies on a continued dialogue between the users and providers of this good within an organisation. ideally, authorship of the information lies with its users, but the organisation's information provision process is a crucial factor in its effective provision. These are two distinct themes extrapolated from the literature consulted. Unless these are attuned to the process and purpose of management, the quality of information will inevitably suffer. An understanding of the role of an effective manager becomes essential.

1.4 The Purpose of Management

It is assumed that the provision of information to managers will be fundamentally influenced by the purpose of the management process. what follows is a selection of perspectives on the purpose of management which have direct significance for an attempt to construct a model of information provision.

For Stafford Beer (1975) the purpose of management is to manage that which they do not understand, i.e. to modify change so that it becomes manageable and to use technology as a technical aid in achieving some form of control over a complexity which is will beyond the average human being. He writes:

"Every manager.....faces an identical problem.....then need to maintain a viable system far more complicated than he can personally understand." P.105

He also suggests that organisations of the future will require everyone within them to input information as a means of facilitating change and suggests that one of the primary managerial purposes is to develop such a complementary outlook amongst personnel within an organisation. His principle of synergy is one of the fundamental ways in which managers will manage change. So it seems that the role of information is primarily in enabling change to take place in a constructive and beneficial way within an organisation.

The author believes that it is essential that any model for information provision to managers reflects both of Beer's (1975) suggestions.

For Nadler and Tushman (1980) the purpose of management is to make organisations operate effectively. The essential role which the effective provision of information to those within organisations plays in achieving this is, in the opinion of the author of this thesis, axiomatic.

Beer (1975) also says that a further purpose of management is to develop systems of control capable of meeting exigencies which an uncertain milieu can offer. It seems that such systems will be rooted in behaviour patterns and in content, primarily the ideas which allow for individuals to acquire information during task performance which will enable new ideas and new systems of management to be engendered. This is very similar to the definition of information offered by Galbraith (1973). Beer (1975) further suggests that a further primary purpose of management of the future is to establish channels of communication, especially those which illustrate errors and ambiguities within the message and to engender systemic structures and metastructures capable of understanding the varieties and difficulties which change brings about and which only the effective provision of information can solve.

The reading done by the author of this thesis has convinced him that any model for information provision must possess these capabilities if it is to make a positive contribution to the management process.

For Canning (1984) a contribution to the management process is an essential prerequisite of a highly motivated work-force characterised by an integrated team approach to the challenges of change. Canning (1984) goes on to say that managers will have to manage a growing demand for the right sort of information in the future. Exactly what the "right sort of information," is, is not specified, but from the definitions given earlier the present author would argue that managers must realise the most authoritative source of this will be their own information demands. Any attempt to anticipate information demand on the part of another can only be marginally successful because we can never entirely inhabit the world of someone else and anticipate all the information needs which keep it intact.

Perfect information provision is an ideal, but in the name of professionalism managers must devote themselves to attempting to correlate the information needed to perform tasks and the information provided to the highest possible level. A model for information provision would make a major contribution in this respect.

1.5 The Role of the Manager

Formulating a model for information provision, and considering the organisational variables which affect it presupposes that the role of the manager has been clarified. It forms one of the basic tenets for proceeding to construct such a model because it establishes its parameters.

These definitions have been selected because of the provoking concepts they provide for the construction of a model of information provision.

Kotter (1962) defines the role of the manager as being primarily that of a problem solver and decision maker whose task it is to identify priorities, manage time, motivate, built effective teams, and influence others. All of this appears to echo what has gone before as being the primary purposes of the manager. Stafford Beer (1975) defined management as:

".....a conversation among ourselves, with our employees, with the public, and with all of the realities of the world outside." P.296

So far as Stafford Beer is concerned, management is a process of information exchange with a wide variety of reference groups inside and outside the organisation.

For Carroll and Tosi (1973) the role of the manager is about an understanding of the goals of his/her organisation as well as the expectation of the manager's superiors with regard to his/her performance. As a prerequisite of this there has to have been information exchange which has taken place and which has been fully comprehended.

So information authorship, before it enters the information provision systems of an organisation, is an essential precursor to the ownership of that information which results from these systems. The single model of this process given earlier in this chapter is supported by this research.

Furthermore, which Carroll and Tosi (1973) defines information in terms of understanding goals, he restricts his comments to the expectations of superiors as does Machin (1980). It seems that this could also be extended to the expectations of subordinates too since they are also significant actors in managerial performance. Robert Heller (1980) suggests that:

".....first objective of the (managerial) exercise is to have an object." (Managerial my word). P.22

This is a rather different perspective of management from that taken by Edgar Huse (1982) who suggested management as a primarily external task:

"A manager is a person who plans, organises, controls and directly supervises one or more people in a formal organisation." P.6.

This echoes the definition of Carroll and Tosi (1973) but it may be rather a mechanistic view of management. Koontz et al (1982) suggests what is to be a rather more ambient view of the manager in their definition;

".....managers must establish an environment in which people can accomplish group goals with the least amount of time, money, materials and personal dissatisfaction, or where they can achieve as much as possible of a desired goal with available resources."
P.5.

Here a profoundly realistic approach is taken to the role of the manager. It is recognised that whilst group goals can be set and ideals can be laid down with possibly the minimum of effort the actual achievement of those ideals empirically is a vastly different proposition.

To be practically useful to managers and organisations a model of information provision to managers must operate in the real world, providing a strategy for action for the successful provision of information for the implementation of change.

The author of this thesis will argue that the purpose of management is to achieve the greatest possible degree of fit between ideal and the real is the most fundamental of managerial purposes, and, the definition of a successful manager. The most successful managers will be those who achieve the greatest degree of fit between the ideal and the real objectives of the organisation and those who are expected to achieve these.

Making plans for the future of an organisation is a well documented process, but models for implementing them are more scarce because these require on the part of all those involved, a willing subjugation of their own feelings and beliefs to the wishes of others. So plans and the changes which they bring have to be "sold" to the people affected by them. The prelude to this selling process is a marketing exercise designed to identify the needs of the customer so that the "selling" process can be most effective. Both of these are orientated towards the practical realisation of the ideal or planning process, in the real world. The role of the manager lies in the achievement of the highest correlation between the ideal and the real, and all of the intervening organisational variables emanate from the context in which this match is attempted.

The next chapter will examine the influence of context as a source of variables affecting the provision of information to managers.

1.6 Summary

From the first chapter of this thesis the author has learned that an effective model for the provision to managers needs the following qualities:

1. It must make changes affecting the organisation more manageable.
2. It has to make a contribution towards the synergy of the organisation, and to the congruence of the goals of people with those of the organisation.
3. It has to facilitate change in a constructive and beneficial way.
4. It must contribute to the development of systems of control capable of meeting almost all of the exigencies which an uncertain milieu can offer.
5. It must help to establish channels of communication and establish information flow inside and outside of the organisation.
6. It must attempt the highest possible correlation between information essential to managerial tasks and information provided for these tasks.
7. It must recognise that information authorship is an essential precursor to information ownership.
8. It must be capable of being applied in the real world of management.

Chapter Two

The Influence of Context as a Source of Variables Affecting the
Provision of
Information to Managers

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Chapter Two

The relationship between information and change is highlighted by the work of Rogers and Kincaid (1981) who say that proof of effective information transfer lies in changes in physically observable actions. The latter proves the presence of the former which is a precursor to it. The aim of the model for information provision which this research intends to produce, is to enable an organisation to provide information in ways which will be conclusive to the promotion of desired action from its members. Information causes change, and it follows that the strategy employed in the provision of information will have a significant effect upon the extent to which an organisation is able to accommodate change and turn it to its best advantage. Rogers and Kincaid (1981) said that "meaningful dialogue" is the only way of achieving such a state.

However, the phrase "meaningful dialogue" is another one of the extensive genre of comments which are easy to write but difficult to achieve. While the objective of this research is to construct a model for effective information provision to managers, due regard to the organisational problems which affect this must be paid. Such research could not proceed without a consideration of the context in which information is provided.

Context may be regarded as an ongoing dynamic interaction between people, events and circumstances with all of the associated idiosyncrasies, vagaries and uncertainties which accompany these.

2.1 The "People Problem"

On many occasions during this research the writer has encountered the "people problem" which essentially seems to be that people 'spoil' the systems designed by other people for them to operate.

Mary Miles (1984) quotes William Durrell of Data Administration Incorporated who says speaking of integrated systems:

"... Organisations' mistake is to think the problem can be solved by machines, when it's a people and management problem." P.160

The problem referred to here is that of providing effective information. Bessant and Lamming (1984) quote William Johnson, Director of Rockwell International at a recent conference in Geneva when he says:

"The technical problems we can solve - the people problems are hell" P.109.

Again what is being referred to are the problems associated with information provision and as Beer (1975) had already said, the capability of systems to devise and process information is infinite, but without the acceptance and willingness to utilise these on the part of those for whom they are meant, they are to no purpose.

A failure to recognise the human factor with all his concomitant vagaries is to go only part of the way to establishing an information system which will be practically as well as theoretically useful to the manager. Dennison (1987) discussing the ways that change ought to be managed, makes the comment:

"The technology of change is well defined. It is the people responses to it which need astute management." P.16.

His thesis is that resistance to change is often caused by the way it is introduced rather than by what is introduced. The point here is that knowing how to introduce change into an organisation is a key managerial skill. It in turn demands a strategy for information provision which will enable most of the people in the organisation to be carried along with it because a consensus has been achieved.

To go further, it is the opinion of the author that a strategy for marketing information to members of an organisation needs to be developed if people are not to be regarded as a "problem". The problem seems not to be people at all, rather the absence of a model for providing information to people which will lessen their uncertainty by including them in a dialogue about their changing circumstances. That is, the changing context in which they operate.

The central tenet of marketing is "the customer is king" and identifying the needs of the customer lies in understanding his/her context as thoroughly as possible. Normann (1977) pointed out that successful companies often focus on the needs of the most demanding customers. There exists a plethora of marketing techniques, all of which are directed towards ensuring that the right product is provided in the right package, or way, at the right cost or price as and when the customer wants it. If all this achieved, then with luck the product will sell. There seems no reason why these principles should not be incorporated in a model for information provision, because the object of the exercise of providing information is to get those for whom it is being provided to use it in their managerial decisions to the benefit of the organisation and themselves. Providing good information is pointless if no-one chooses to use it, so the marketing of information by the organisation to its managers by focusing on their most exacting requirements demands market research and the application of marketing techniques in the same ways as the organisation applies them to its products and the identification of its customer base. As Marquis (1969) points out, inventing a product, whatever its merits, is one thing, but successfully disseminating it in the market place is another. There are no guarantees that this will be successful even with an expensive marketing strategy. Without it the chances of the product being taken up are virtually nil.

Regarding people as a "problem" implies that there is little understanding of how to supply information to them in a way and from which will elicit in them a desire to use it. Techniques of identifying markets for goods, of advertising to those markets and of supplying the goods once the demand for them has been created are highly sophisticated. It is clear that these techniques need to be applied to the process of providing information to managers, in order to see managers as customers rather than problems. In short, there is a need for a marketing strategy for information provision, rather than for prolonged lamentation from writers on the subject of how people resist and often defeat their efforts to provide them with

effective information. If the product is right, if it is presented in the right way, at the right cost to the customer; and if the customer is aware of its existence and of its value i.e. if it is properly advertised, then they will 'buy' it. This action is proved everyday in the market place.

An effective model for information provision must take this into consideration, and emanates from an understanding of the context for which the product is intended.

2.2 The Importance of Context as a Source of Useful Information to Managers

Artandi (1982) suggests that it is the social framework which determines the way in which knowledge is created, retrieved and the way in which it is ultimately used. She maintains that this fact has been largely overlooked:

"Among other things, the attention has been focussed on generating and transmitting information and not with how information is used. The fact that information can be transmitted to a remote point does not mean that it can, or should or will be used. Our world is an information rich world in which the problem of absorbing information is more acute than the problem of generating and transmitting it". P.306

A preoccupation with the hardware and software of information provision has meant that techniques for encouraging people to use it have been overlooked. This point echoes that of Beer (1975) who said that the problem was not the capability of systems to provide information of a most sophisticated nature, rather to persuade the potential users of such systems to use them to the full extent of their capability. He bemoaned the gap that existed in the 1970's between what technological information systems are capable of doing and what the people who are using them are using them to do. Harrison (1981) acknowledged this

still existed and pointed out that human behaviour is the key to the effective introduction of change, and that it is in human behaviour towards the technological phenomenon that the key to its implementation lies.

Chenevix-Trench (1979) described this problem in the following way.

"It is still common for a manager to be told by his systems designers: 'Here is my design for your information system. Please read it and accept it. When accepted the design will be frozen. The system will be completed in two years. It may then take a year to learn how to use it fully, and then it must last you for the next decade.'" P.93

No recognition of the need to market the information product to its customers so that they will be predisposed to "buy it" is present here, and it demonstrates some of the consequences of such an omission:

1. The idea that the provider of the information system is totally capable of anticipating the information needs of the user - which implies the lack of need for discussion.
2. The end-user will willingly comply with the expert's opinion of his/her information needs. Suggesting that the user will agree with that which the expert thinks is best.
3. Once it has been installed it will remain inviolate, and as such, unresponsive and inflexible to the demands of change.
4. Employing the system to its full extent may take a year of experience. Users are expected to make the effort to learn to use someone else's system to its full extent.
5. The length of time that it is projected that the system will last without alteration. This raises the possibility that alterations to systems providing information can only take place at intervals not on a continuous basis.

Quinn (1986) reported that the most innovative and progressive companies in his survey were those who were orientated towards seeking and solving their customers problems as they emerged. This principle, in the opinion of the author of this thesis, is essential also to the process of information provision and requires that, in any model of this, there appears the facility for review of, "customers" needs as a prominent feature.

The results of the survey conducted and reported on in Chapter Eight of this thesis shows the importance of the continuous updating of information. There is a noticeable time gap between responses to the question which asks how often information needs are reviewed and those to the question on the frequency with which change affects the managers in the survey. The indication is that change occurs much more frequently than information needs are reviewed, suggesting that there exists a gap between the pace of change, and the provision of information to manage that change which places managers in the invidious position of having to make decisions on current topics with provided information whose relevance is so transient that it becomes outdated on an almost daily basis.

2.3 The Relationship between Information and Organisational Task

The other key element in the equation of effective information provision lies with the task. Both of these have been recognised by much quoted theories of management such as the MacGregor (1960) 'X', 'Y', theory, and the Blake, Mouton (1985) managerial Grid theory. However, it is the opinion of the author of this thesis that this is not an either or situation: attempts to pigeon-hole people as X or Y or high on autocracy or autonomy are too simplistic. There is a need to weld the two together in a complementary way, especially with regard to information provision, so that the needs of both elements are satisfied and the whole of the process completed.

Monk & Landis (1986) suggest that the key to ensuring the greatest congruence between the information and the purpose for which it is intended lies in the openness of access to information. They suggest

that too often access to information which could be company wide is unnecessarily restricted because of vested interests, an excess of caution, and perhaps a bloodminded refusal to share information in case it gave someone else in the organisation an advantage. Again, we return to the notion of organisational culture, and its effect on behavioural patterns, task achievement, and the phenomenon of information impaction identified by Williamson (1975).

In organisations whose goals are not overtly stated or are vague allusions; where a lack of understanding of the information needs of their members exists, and an ignorance of the tasks they perform, either through blatant disregard, or a misplaced arrogance based on an assumption that people are doing what managers think they are doing, such a state of information deprivation is the logical result. Furthermore, not knowing what people are doing, or thinking that it is possible to have this knowledge without periodically checking its topicality, causes resentment, defensiveness and a recourse to private data systems such as were alluded to by Hallett (1985).

Monk and Landis (1986) argue that the advantages of integrating corporate information are great. From the standpoint of eliminating, as far as possible, duplication of effort by different parts of the organisation, this is a cost-effective activity in terms of finance and time saved. They suggest that the benefits of integrating corporate information are by far more advantageous than any other method of monitoring data. However, they also recognise quite clearly that the problem associated with doing this are essentially behavioural ones, and has really little to do with the technical expertise required to actually store and retrieve data. This they say, is easily available but it is within the area of human relations and the way that people behave in organisations, and the way the culture of the organisation shapes these behaviour patterns, that the real problem lies. They write:

"Automation should have resulted in the integrating of corporate information systems" P.39.

and later in the same article:

"But information is created by the business, for the business, and it is the responsibility of business managers to control access and manipulation of that information. By and large, they don't." P.40.

Their point is that what ought to have happened has not happened - a familiar refrain in much research literature and they propose the development of formal information policies which will allow the sharing of information especially that which is vital to corporate welfare. They suggest that keeping private systems militates against information sharing and encourages replication and insularity on the part of those who guard such systems. They say that the biggest barrier to sharing information is the attitude of people and the absence of mutual trust in certain organisational contexts.

Models associated with manual information systems and technical information systems are, it appears, easier to construct than new behaviour patterns on the part of the people who have to use such systems for managerial purposes.

2.4 The Influence of the Goals of an Organisation on Information Provision

Every organisation needs direction, and Drucker (1988) says that the most effective organisations will have a small number of simple goals which have been regularly communicated and internalised by its experts. In addition, each expert would then be responsible for the information which he/she gives and receives to the various people with whom they interact in order to achieve these goals. He writes:

"Executives and professional specialists need to think through what information is for them, what data they need: first, to know what they are doing; and finally, to appraise how well they are doing." P.50.

These are the key questions which orientate the direction of an organisation and hold good in the face of all organisational and personal change. They introduce the elements of review and evaluation into the model for information provision as a basis for determining present and future managerial action, summarising the work of Pucik and Katz (1986) who speak of control of information, and say that the best provision of information reflects organisational control mechanisms, conveys information which regulates and initiates individual activities, and allows the individuals using that information the maximum flexibility in interpreting and applying it. They suggest that it is the medium of organisational control which affects the information provision of the organisation, citing two such methods: in a bureaucratic control model information is controlled by external constraints; whereas, in a cultural controlled model information is controlled by those who use it and by the constraints of the situations in which it is applied.

Ballinga and Jaeger (1984) had earlier made the point that cultural control models rely on consensus, and in work published in the same year Canning said that this consensus was that managers would be able to achieve better results, quicker and with less expense to the organisation.

Reading suggests to the author that most power for a model of information provision lies in the cultural domain, partly because effectiveness in this area is so difficult to achieve, and partly because as Hoxie and Shea (1977) said, it offers the challenge of providing information for future changes. If a model which can be timeless in its strategy then its contribution to management skills development will be considerable.

2.5 Organisational Flexibility and Information Provision

From the research consulted, it appears that flexibility is the key word which characterises organisations best able to provide the type and quality of information necessary to achieve the managerial goals. Both Beer (1975) and Kilmann (1984) have mentioned this, and

Banbury (1975) added to this the notion of setting behavioural objectives as well as quantifiable operational ones in the organisational culture. More recently this need for flexibility in organisations facing change was emphasised by Spector (1989).

Nemec (1982) supports this opinion and advocates the development of information centres as areas where information relevant to both the operational and cultural aspects of the managerial role can be provided. Thompson and Wildavsky (1986) make the point that all organisation is bias and therefore organisations cannot look at data from all directions and the bias which they evince is based partly upon the social interaction process within the organisation, and, it could be said, partly upon the force of the environment in which the organisation operates as Harrison (1981) suggests.

From this the author concludes that the organisational structures which allow the provision of the best type of information for managerial purposes are characterised by this flexibility and this sensitivity to the information which managers need. They are characterised by a distinct reorientation of priorities from the organisation's command control type of authority which appears to be historically dominant, towards distinctly user led approach to information provision brought about by the realisation on the part of those responsible for the overall direction of the organisation that they can no longer anticipate and furnish the information needs of their managers by anticipating what these will be.

There is a change of role towards a self-regulating organisational system of the sort proposed by Beer (1975)¹ in order to achieve the endless adaptability which the speed and complexity of present day, and future change requires, if the common goals of the organisation are to be achieved. He points out that traditional organisational structures have existed primarily as vehicles for apportioning blame rather than as facilitators for achievement of their goals. This represents a return to an earlier point that people work in an organisation primarily on the basis of personal relationships and that the organisation must recognise that this is the case if it is to foster

¹ Page 11

these personal relationships and enable managers to perform their functions in the most effective way possible. Canning (1984) suggested this can be achieved by increased familiarity on the part of managers with computer hardware, added to the autonomy to develop these skills and to determine the type of software systems which would be most useful in the provision of information by reference to suppliers and customers. He says that the maintenance and development of information highways should be the primary preoccupation of those charged with running organisations but the determination of the type of volume of traffic using those highways should be the preserve of the managers themselves.

Rogers and Kincaid (1981) say that individuals derive meaning from their interaction with others and that this is the basis for human action. It follows that the information derived from this interaction should be the basis by which human relations are perpetuated, and that the nature of this information can only be determined by those who are involved in the interaction processes. At its most fundamental level this is the primary justification for flexible organisational structures and user led information provision.

The organisational structures best able to cope with managerial demands and furnish the information which they desire in order to achieve their purposes are those where the decision-making capability is moved down to the level in the organisation where information exists. This is the central point of Galbraith (1973) arguing, as he does, that in the rapid response markets which characterise much business activity of the day, the option to create slack resources by extending the time limits does not appear to be a viable one for organisations struggling to increase their market share. Moving the point of decision to the point of information is making use of the organisation's human and information resources most effectively and most promptly.

Goold (1987) asserts that the organisational culture most conducive to an effective climate is one which encourages the free-flow of information from the centre to all of its constituent parts free from the fear of having to justify this information. He writes that the most

effective organisational cultures encourage new views and opinions and makes no attempt to stifle these; they avoid the promotion of self-interest in favour of an organisational wide view, a shared vision of the health and welfare of the organisation; offer encouragement to the development of new viable strategies, free from destructive criticism and a pedantic approach towards detail; respond to information requests which are seen to be valid because they produce action; and promote adherence to realistic goals and objectives. In all these ways, the provision of information has within it the power to maintain and enhance the culture of an organisation. As Goold (1987) writes, the need to sell this strategy and to go on selling it within the organisation must never be overlooked or, left to take care of itself at the lower levels of the organisation. It is first and foremost a responsibility of senior management to perpetuate within all areas of the organisation by the information they provide and by the uses which they encourage their staff to make of that information. If, as Olson (1965) states, organisations exist to further the interests of their members, then an organisational culture which does not keep pace with the changes in these interests cannot be an effective one.

It is the author's belief that personal relationships are the basis of the working process and that these must be a significant element in any model of information provision. Much of the research consulted reinforces this impression and draws him to the conclusion that the dichotomy between the organisation and the people within it is a false one. The people are the organisation and it is felt by him that the absence of skill at managing people results in close mechanistic models of organisational culture. Marquis (1969) said the expertise and experience of people in any organisation is the principle source of information for innovations which contribute to the success of an organisation in a competitive environment.

Marketing information effectively in an organisation demands an understanding of the wishes and needs of individuals in an organisational context, and an insight into the determinants of the quality of the information they value.

The culture of any organisation is the single most powerful factor influencing managerial actions because it has the power to legitimate these, or not.

Any model of information provision must recognise the power of cultural control over managerial action and provide a strategy for managing this power to produce desired outcomes. Unless managers can gain the support of the organisation for their activities then desired outcomes become unachievable especially in areas affecting the whole culture of the organisation. Within restricted areas managerial activities may be undertaken with relatively little resistance; however, at strategic level, unless managers can convince members of the usefulness of their decision, the reaction to these can prevent them from being implemented irrespective of their inherent worth.

2.6 The Relationship between Communication and Information Provision

One contribution which communication makes to information provision was illustrated by the research of Osmolski (1979) who having surveyed ten medium-sized manufacturing companies in South Wales found as one of his main conclusions that the best use of information, especially on financial matters, was achieved when the needs of the managers were understood by the providers, in this case, the accountants.

When this understanding did not exist then there was little point or purpose in providing information even if it was relevant, had sufficient depth of detail and was timely enough for the purposes of the users.

There is a need for constant review of the information provision process if this understanding is to be achieved and maintained. Furthermore, Osmolski (1979) suggests that this understanding is an obligatory preamble to any attempt at information provision. There is a need to inhabit the world of the persons for whom the information is being provided and this skill, which Mark Brown (1988) argued for so

eloquently, involves the spending of time to, and developing the skill of getting to know the real person, not our stereotype of him/her. Brown (1988) writes:

"Many of us rarely get to know other people. We only 'meet' the stereo types we already hold of others."
P.64

This is an extremely difficult thing to do, and many of us either say we do not have the time to do it, or do not see the need to do it, but unless we begin to address this problem in terms of the information provision strategy, then we cannot begin to cater for the endlessly changing needs of our market. Here it is acknowledged that to supply cost effective information it is not necessary to have an in-depth knowledge of the psyche of a fellow manager, even if this were possible, but an attempt to understand the personal information needs of another may provide a more fruitful basis for information provision than direct task requirements. Salk (1985) writes:

"The power which man has achieved through technology has been transformed into spiritual and moral impotence. Without insight into the nature of being, more important than doing, the soul of man is imperilled." P.xvii

In the same book, he argues that there are facts of a higher and lower order, and whilst we may have achieved some understanding of the genetic world through Cartesian methodology understanding relationships which is the key to the higher order world, involves a deeper insight into the world of feelings if we are not to restrict our learning to knowing when we could supplement this with understanding higher order relationships by seeking their truths in convergence theory.

From all that has been read in preparation for, and during the writing of this thesis, the need to understand the relationships between people, and between people and their organisations, is fundamental to

the development of any strategy for information provision. Rogers and Kincaid (1981) said that communication is a process of convergence and understanding evoked from continued dialogue. This is the basic principle which any strategy must follow. It must be built on a continuous process of communication between significant parties in an organisational context.

This also has significance for the central point made by Osmolski (1979). He writes:

"Management's major complaint was that there were often no clear statements of either their company's objectives or of the objectives of individual jobs." P.39

He says that without such statement, no strategy for fit can even be approached, and furthermore, in the absence of these objectives, managers tended to concentrate on running their individual departments, i.e. meeting objectives which they set for themselves and over which they had some control. The major point here appears to be that some objectives, any objectives, are necessary in order to orientate the managerial function and in the absence of any realistic objectives being set at organisational level, then managers have an inclination to set their own at a personal level and work towards their implementation. He also makes the point that in order to be internalised by managers, the objective setting exercise has to have their participation throughout. He cites the process of "pseudo-participation", first identified by Argyris in which managers may be consulted at the outset of the objective setting exercise, but are seldom actually allowed to participate throughout and to agree the objectives in their final form. However, it is possible to identify quite readily a socio/psychological barrier to this process as those at the head of the organisation feel that unless it is they who set objectives they are having their power in some way usurped.

Osmolski (1979) goes on to make the point that it is the duty of every company to make the effort to understand the complex nature of its very organisation, its functions and the process for establishing

mutually agreed sets of well clarified objectives because when such target setting has taken place the information needs of those charged with the responsibility of implementing these can be clearly specified and therefore the information itself becomes more relevant to the individual responsibilities.

For Osmolski (1979) this lies at the heart of any strategy for ensuring the best fit between information provided and information provided and information used for managerial purposes. He makes four distinct points which together form an effective strategy for ensuring this fit:

1. There must be a preliminary definition of company objectives.
2. Within the frame of these objectives the setting of individual targets must take place.
3. There must be participation of management in goal setting throughout the process.
4. There is a need to educate managers in the use of information and for those who manage managers there is a need to show appreciation of the problems faced by management in the decision-making context.

For the purposes of this system goals may be regarded as destinations unconstrained by time, whereas objectives are time constrained achievement standards.

Osmolski (1979) helps to lead us to the conclusion that there is a need for every organisation to have a structure which is sensitive and responsive to user needs. Additionally, it has to be inquisitive enough to update these on a continuous basis.

2.7 Organisational Networks and Information Provision

Communication is the process by which organisations provide information for managerial purposes. Rogers and Kincaid (1981) had

no doubt about the importance of the development and management of information into a series of communication networks throughout the organisation, to them it was fundamental in the development of a self-sustaining attitude to change on the part of the organisation and its managers. Galbraith (1973) also suggested that information was a key way in which change could be managed effectively.

He postulated that change results in increased uncertainty, and the greater the uncertainty the greater the amount of information which needs to be acquired and processed by decision-makers during task execution.

There is, therefore, a continuous need for the provision of information as an essential element in the process of learning and adaptation of the organisation and its individuals to the change which affects them both. Harrison (1981) is particularly clear about the force of the environment in influencing individual and organisational decision-making patterns. Defining the role of environment in the decision-making process he writes:

"The environment includes all the conditions, circumstances, and influences surrounding and affecting the total organisation or any of its internal systems." P.113

He suggests that the objectives underlying the decision-making processes and the decisions which result from these may be formulated at any level in an organisation but have to be ratified at an organisation level, as Schon (1971) in his life cycle of ideas model points out and it could be added, in the last analysis at a social level in order to gain ratification and acceptance. Decisions made without cognisance of the impact of the environmental considerations would be hard pressed to gain recognition.

From the literature studies the author concludes that the making of decisions, and their ratifications by the organisation are two key

variables affecting information provision, for example Van de Ven (1986) recognises the importance of context in the development and implementation of new ideas in an organisation. It is in this trade-off dilemma that a model for information provision can make its contribution, helping managers to gain support for their initiatives and decisions in the context in which they are to be implemented enough to recognise the importance of doing so to its own viability in terms of the information it provides for its managerial purposes. Here, the point must be made that by the word "organisation" we mean everyone in an organisation must be sensitive to his/her information "customers". Usually this word is applied only to people from the outside of an organisation who take advantage of its services, but this author argues that the word can, and should, be applied to people within an organisation who are the customers for the services which other managers are able to offer to them.

There are four distinct questions which can help those responsible for information provision to ascertain the needs of others:

- Who are my customers?
- What are their needs?
- When did I last check?
- When did I last tell them?

The communication process referred to here is one of identifying, understanding, checking and explaining the information needs of others and oneself in order to provide, and be provided with information.

By this simple checklist an individual manager can constantly appraise the worth of the information he/she provides against the actual use which is being made of it by his/her customers. Von Hippel (1978) showed that ideas for most new products come from customers. This principle could be equally well applied to the process of providing information in new areas and in new ways for managers in a dynamic managerial situation.

Information provision is the key way in which the organisation supports its managers, and therefore, it goes beyond the technological capability of the organisation to provide information and into the realms of behaviour support and working practices which are the areas which determine the actual utilisation of information. If a manager knows that the information the organisation is providing enables a more justifiable and better quality decision-making process, and also is able to furnish him/her with support for the decisions which have to be made during the course of any managerial day, then the tendency will be for individuals to use this information rather than to gather further information themselves either to check the accuracy of the provisional information or to obtain what is in their opinion "better " information to utilise during the performance of the managerial tasks.

Thompson and Wildavski (1986) said that information usage is bounded by cultural limitations and that these cultures are perpetuated by a collective willingness to subscribe to expressed norms. The author recognises as a significant point the need for an organisation to continually and carefully manage and foster its own most desired culture. This takes its cue from the very top of the organisation but must be encouraged and permeated throughout all levels of management.

To do this effectively requires a whole battery of skills and strategies to involve the people in the process of information provision to serve their ends; to persuade them to internalise and manifest the goals of the organisation by employing, willingly, the information it provides to the best purposes in the achievement of these goals. This can only be based on a strategy of continuous communication which is the fulcrum of the relationship between information provision and information usage for managerial purposes. Without it there remains an imbalance between the information which will be provided and the will of the people for whom it is provided to actually take advantage of that in preference to the information which they themselves can generate and in which they trust.

Drucker (1988) advocated the shortest possible lines of communication as a means of providing information, and this must be considered a significant factor; he suggested that there was a distinct movement away from organisations in which service staff predominated towards those organisation structures where knowledge was of paramount significance.

He wrote:

"In the information-based organisation, the knowledge will be primarily at the bottom, in the minds of the specialists who do different work and direct themselves. So today a typical organisation in which knowledge tends to be concentrated in service staff, perched rather insecurely between top management and the operating people, will likely be labelled a phase, an attempt to infuse knowledge from the top rather than obtain information from below."

P.47.

He is quite clear that the future developments in the provision of management information systems will be as a result of much shorter and more direct lines of communication. This will be achieved by the removal of layers of middle management thereby allowing high grade specialists to report directly to top management.

He could see no real purpose in future organisations for systems currently popular in which there are layers of managers whose duties are as "relays", i.e. they convey information. However, in so doing they will inevitably interpret and reinterpret the information and add bias to it. He suggested that in a system of organisation whereby high grade specialists report directly to the top management, then information could be more directly related to the current climate in which the operational functions were being performed.

This direct relevance would make the systems infinitely more viable and useful to the knowledge specialists themselves. In this respect he was supported by the work of Benton (1987) who suggested that the greatest challenge to management was the explosive development of information technology because it offered almost limitless facilities and opportunities, for information storage and retrieval. No benefits accrue, however, until management develop the skill and the wisdom to utilise the facilities which information technology now offers.

Both of these pieces of research have significance for a model for information provision: that of Drucker (1988) because it makes clear that information provision is the role of all members of an organisation, not just the preserve of the hierarchy, and that any model for information provision must reflect this total participation and provide a strategy for anyone in an organisation to contribute to its information base; also present here is the concept that short lines of communication are the best facilitators for information. That of Benton (1987) draws attention to the need for managerial strategies for harnessing information technology, and its power of provision, to the goals of the organisation it is meant to serve. He says that the primary purpose of the organisation's provision of information is to raise its managers' levels of awareness about the jobs which each does and the degree of interdependency which is required between these jobs if the organisation is to meet market challenges. He makes the point that less than a quarter of managers have any significant experience or training outside the function in which they are currently working and suggest that this produces a very narrow-minded view of the whole organisation, which is likely to be reflected in the decisions managers make.

He suggests:

".... Men and women with the high conceptual abilities and the intellectual curiosity need to understand functions other than their own and to appreciate how other enterprises can add value and create wealth." P.71

There is a case here for decision-makers to have personal and corporate development programmes to broaden the perspective of their decision-making base.

Karman and Bloom (1985) say there is a need in organisations for people to communicate to understand informational needs in terms of their scope and their purposes; to be continually unearthing new sources of information and incorporating new data into existing systems; and finally to explain modifications necessary to adapt present systems to accommodate future information needs. They write:

"A better understanding of human information processing may be as important as technical skills training if we are to meet present and future personnel needs." P.71

This comment is supported by the work of Dennison (1987) who suggests that resistance to change often occurs as a result of the way in which change is introduced rather than to change per se, and that most of this resistance arises because of a lack of communication and understanding of the information that people need in order to accommodate change. It is, then, a lack of correct information provision which causes human recalcitrance towards change. Lawrence (1967) writes that organisations have a need for managers whose specialisation is as integrators between their various branches. These may be seen as the guardians of the networks along which information passes. Co-ordinating this work in order to develop a corporate perspective for decision-making among the managers of an organisation is an essential task. The nomination of individuals whose job is to facilitate the passage of information among all members of an organisation is therefore an important feature of a model of information provision which the study of organisational networks contributes. Schendel (1988) pointed out that a key challenge faced by management is to develop organisational structures capable of responding to the changes which are challenging them. He states that present organisational structures are the product of past changes

and as pressures for change shift so must organisational structures in order to accommodate these. Chandler (1962) said that as innovative strategies developed they often required innovative structures to accommodate them. The opinion of the author of the author of this thesis is that the model for information provision it proposes may be useful as a basis for future organisational design.

2.8 Information Provision and Organisation Success

All organisations seek to be successful, and as the previous section stated, the fundamental way in which they can move towards this is by achieving the involvement of the people in the organisation with its desired objectives. The question to be addressed in this section is which are the key areas of organisation activity, and what is their influence on organisational success.

Thain (1978) advanced six basic functions for the general management of a company which could be extrapolated and applied to formulate its employment of provided information by its managers.

These are:

1. The analysis of the company's environment and situation. From this overview, a description of the status, general health and, in particular, the market opportunities offered by present events and emerging trends can be obtained. This would lead to the development of strategies designed to provide it with most, "result getting leverage" as Thain (1978) described it in the key areas of potential benefit. A key preoccupation for management, and an area in which provided information of high quality would be invaluable.
2. Information which enabled specific goals for defining the purpose of the company. This would be critical to the growth and survival of the organisation, and therefore highly relevant to the needs of its managers. Such information would include an appraisal of stakeholders, needs and concern the way in which they would evaluate company performance.

At this stage it must be pointed out that Thain (1978) regards stakeholders not in the financial sense, but in the sense of customers, Unions and owners of the company and additionally Government and other political interest groups from the environment in which the company operates.

Information to satisfy the needs of these groups would be concerned with the basic measure of the success of the company and the extent to which the needs, rights and desires of these shareholding groups are being met by current company policy.

3. Information on corporate strategy; a critical area because it represents the direction in which the company is to proceed. This would include the objectives, goals and mission of the company and the methods by which they would be achieved. As Thain (1978) points out:

"A corporate strategy consists of a set of major, action decisions that commit the organisation and resources to a timed sequence of conditional, competitive moves designed to accomplish objectives and goals." P.57

Information pertinent to the establishment of these goals and the methods of achieving them would be highly desirable and therefore be closely aligned with the needs of the organisation and the managerial purposes designed to fulfil those needs.

4. Information relevant to the organisation of the business is highly significant. This is because this aspect of information includes the definition of the functions and tasks to be performed in implementing the organisation's strategy, the definition of individual assignments in terms of their authority, responsibility and job functions, the staff development training and hiring aspects, and the generating of an amenable working atmosphere.

5. Information which facilitates a measuring and controlling system. This is an essential part of the managerial function, because its aim is to provide a system and a strategy for implementing the operations and measure the results achieved by its implementation. Here, as in the other areas, the information system which is generated appears to hold the key, since through it, the information is collected, analysed and communicated in the form of necessary data which is significant as a performance indicator, and which can be readily invoked by managers into their decision-making process.

6. Information relevant to motivation and discipline within an organisation. This is critical since, Thain (1978) maintains, it is primarily through personal rewards and incentives that motivation is achieved. For him it represents at least a significant part of the transactional relationship between the individual and the organisation.

This sequence of key areas proceeds from the most general to the particular. The point here seems to be that some of all of these areas of information and attitudes is relevant to managers in an organisation. Their job tasks, will determine the proportion of these information ingredients because these will determine the types of decisions they will have to make and how they make them. The corporate perspective of Benton (1987) could be based on these areas of information and so they become an important consideration in the provision process. However, we must also include in this equation the opinion of Schendel (1988) that two central elements in determining managerial success are based on structure i.e. the structure of the organisation and the structure of the industry in which it operates.

The second point on Thain's (1978) list emphasises the corporate stake which all those involved within the organisation have in its survival. He says that interested parties, inside and outside of the organisation, and hold an economic a psychological and a political stake in it.

From the comments made, it can be seen that sources of information dealing with economic and personal welfare are significant here. This reaches a point which is fundamental to the relationship between the individual and the organisation irrespective of the nature of his/her involvement. The continued success of any organisation is central to the lives of all those who sell their time to it whatever price. This involvement gives them a right to have their wishes and needs reflected in the policies of the organisation to some extent. To what precise extent is a significant point. Those who direct the course of the organisation have most chance of having their wishes reflected in policies, but the point is made that unless these echo the wishes and needs of those others who also work for the organisation, the extent to which they will be implemented will be prejudiced. Information in the areas of corporate strategy, the systems of the organisation and the incentives which it offers to its workforce are critical subjects and need providing in whole or part to everyone whom they affect. However, the success of any organisation will be dictated by the extent to which plans can be implemented.

This topic was raised in Chapter One of this thesis. Unless those involved in the execution of plans are correctly informed, then and informed correctly about events affecting them, uncertainty and mistrust will intervene in the process of turning plans into events. Informing people requires a strategy which will enable them to participate rather than spectate in events, in order to generate their ownership of change. We return to the idea of marketing information in a way most likely to achieve desired results, and from there to the central purpose of the proposed model and its influence on the tasks which people perform and their influence on organisational success.

2.9 Summary

From the study of the influence of context as a source of variables affecting the provision of information to managers the following key points have emerged:

1. There is a need to market information effectively within an organisation if it is to be used by managers.
2. Provided information must be easily accessible if it is to be used.
3. Information provision is a means by which an organisation can exert control over the activities of its managers.
4. Organisations which are most capable of providing the type and quality of information necessary to achieve managerial goals are those which are most sensitive to the needs of their managers and most flexible in responding to those needs.
5. Effective information provision can only take place where there is a continuous review of needs through a carefully formulated strategy for effective communication with the users of that information.
6. Decisions made by managers need, in the first instance, to be acceptable to their organisations.
7. Everyone in an organisation needs some of all of the information relevant to the welfare of that organisation.

Chapter Three

Organisational Culture as a Determinant of Information Provision and Usage

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Chapter Three

3.1 The Organisation as a Source of Variables which Affect the Provision of Information to Managers

The last chapter considered the influence which context has on the provision of information to managers. This chapter examines those variables significant to the construction of a model for information provision which have emerged from the study of organisational structures. The author of this thesis believes that any model seeking to provide a strategy for information provision must take into account key variables in the structure of organisations and the influence these will have on the process of provision if it is to be a useful management tool.

With this in mind, this chapter will examine the influence of the culture on any organisation on information provision; the importance of organisational goals to information provision; the role of organisational networks, and their significance in the provision of information to managers; and the concept of organisational flexibility and the contribution it can make to the construction of the model.

3.2 The Influence of Organisational Culture as a Determinant of the Usefulness of Information

Miles (1984) has no doubt that the factor which ultimately determines the circumstances in which formal information, which may be regarded as that provided by the organisation for managerial purposes or informal management information systems which can be those which managers generate themselves, are used, is the corporate culture. He suggests that this establishes and maintains the norms of the organisation which in turn determines the ways in which information is supplied and used. Chenevix-Trench (1979) suggests one of the more extreme forms of a negative organisational culture results in everyone having his/her own management information system and keeping it.

Thompson and Wildavsky (1986) say that all organisations are biased and the ways in which information is recognised, selected and used are determined by this bias. They suggest that it is impossible to look at data from all directions and, therefore, the selection and rejection of data will be made according to the social interaction which takes place within the organisation, its norms, its goals, its ethos, its people, all involved in the process of selecting, choosing and rejecting information according to their own ideologies, norms and perception of the overall normative culture in which they are interacting. Potter (1989) made the same observation about the influence of culture.

Unless the complexity of the context in which the information systems are being installed is taken into account, they will never attain optimum useage in the managerial process. As Janis (1982) points out, organisational structures serve to focus attention on to prescribed areas of activity. The dilemma is that many of the ways in which management information systems are used are idiosyncratic and that this area is the area which is essentially ineluctable but invaluable for its innovative worth. It is therefore wrong to attempt to design social variables out of formal information systems, just as it is wrong to disregard them. In doing either of these things there is an implied insult to the worth of the users of these information systems which is felt and provokes in these users a response which is to reject the formal information systems in favour of their own personalised management information systems. In short, it restricts the ameliorating effect of qualitative data over quantitative data which is essentially the preserve of formal information systems. Ideally, the most used and esteemed management information system will be those which allow a dynamic inter-play between these two facets.

Leitko and Peterson (1982) have no doubt that the value of information lies ultimately in its social useage. The way it is able to legitimate the role of the individual and establish his/her identity is its key feature. For them, the factor which determines optimum utilisation of a management information system is the rewards which users perceive they will gain from using the system offered to them.

The balance must be preserved between these perceived rewards and the requests for information made upon the individuals using the system made by those individuals. Lawler and Drexler (1982) suggested a role of switching technique to help in an appreciation of users information needs.

This would enable information systems designers to more adequately match the qualities and features of their systems to the needs of the end users. It takes into account not only the overall context of the user, but also the pressures from subordinate and superior groups within that context. Dew and Gee (1972) had no doubt that in establishing success criteria in the design of information systems cognizance must be taken of the demands of the individual's job.

Chenevix-Trench (1979) suggests that job appraisal should take the form of an understanding of the complexity of the work in terms of the manager's span of control of the functions of his control; the responsibilities which are being shouldered and the source of these, to determine whether they are the result of planning or of evolution; and the training which managers have received in order to manage the innovations with which change has confronted them. Within this it seems that the idea of planned change as opposed to change which occurs as a result of evolution is a critical one. The former can easily be recognised by the formal information system of the organisation whereas the latter is not and it is this change which necessarily must be managed which is seems will force managers to develop and use their own informal systems of communication as a means of functioning during the managerial process.

So, a model for the provision of information for managerial purposes must recognise the distinction between information needed for imposed change i.e. planned change, and that for spontaneous change which occurs as the result of evolution.

3.3 The Role Of Organisational Culture In Information Provision

Kilmann (1984) suggests that the culture of the organisation is the most significant determinant of its success. He argues that the primary purpose of provision of information is to perpetuate and enhance the organisational culture. He writes:

"The likelihood that an organisation will achieve success in a dynamic and complex environment is not determined just by the skills of its leaders, nor by the strategies, structures, and reward systems that make up its visible features. Rather, the organisation itself has an invisible quality - a certain style, a character, a way of doing things - that may be more powerful than the dictates of any one person or any formally documented system." P.351.

For Kilmann (1984) the culture of the organisation represents the rules of the game, the unseen meaning between the lines which ensures unity and perpetuate the organisation's norms, ideologies and values, all of which are represented in its goals which in turn orientates its managerial force and direction. He argues that unless a culture within an organisation is managed constantly, then it will become dysfunctional and before long culture gaps will occur, in which the social energy of an organisation pressures members to adopt behaviour pattern which have worked well in the past but are irrelevant to the present challenges. He also suggested that unless there is careful maintenance, cultures will rapidly degenerate into ruts, in which the people within the organisation will pursue behaviours out of habit. Such a robotic frame of mind means that new challenges will be overlooked or disregarded. The end product of all this could be culture shock when the sleeping organisation finally awakens and finds that it has lost touch with the latest developments and challenges in its area of the market place, and has lost sight of and/or failed to renew its mission. Such a situation means that the demise of the organisation could be imminent. Kilmann (1984) writes:

"The most detrimental behaviour in the long run, however, is continuing to see and act out what made the organisation successful in the past rather than adapting to the dynamic complexity of today and tomorrow." P.355.

Any model of information provision needs to reflect the importance of organisational culture and contribute towards the accommodation of changes to it which will ensure its continued viability. In this respect the model has a vital role to play as a means of introducing change in a way which is acceptable to those it affects.

This gives the model an orientation to the, 'whole', of the organisation, reflecting the needs of all people within it to be managed effectively through the process of change. The work of Vogel (1984) is significant here; he says that management information systems, to be most effective, must be focussed upon the whole of the organisation, and he adds that too often people without this holistic perception of the organisation are asked to complete missions defined by senior management. It is the author's belief that unless such managers are given a corporate perspective along with the holistic mission statement their success will only be partial; namely, that part of the mission statement which they understand and upon which they can take action. This is supported by the work of Benton (1987) quoted in chapter two of this thesis.

The main points here are that whatever mission the senior management decide upon for an organisation can only be realised if it is introduced in a carefully organised way and if it and the corporate perspective which accompanies it are shared with those charged with realising its aims and objectives.

3.4 The Influence of Organisational Culture on Leadership and Corporate Vision

Grindlay (1984) suggests that the task of ensuring information provision according to the above requirements is what demarcates a transactional leader from a transformational one. For him, the essence of an effective leader is one who attacks the fundamental basis of the organisation's cultural and political system in order to ensure continuously that the information provided will be most effective for management purposes. Transactional leaders for Grindlay (1984) are those who simply tinker with information systems, while transformational leaders seek to evaluate the basis on which they operate and the fundamental philosophical and psychological usage made of such systems in order to achieve the organisations goals. This is done in order to ensure that the provision of information is of the highest possible quality for as long as possible to support management.

He is quite clear on the point that transactional leaders have the function of dotting the, 'i's', and crossing the, 't's', but that it is the transformational leaders who write the words and determine the style of the writing. Their role is to:

"Help the organisation to develop a vision of what it can be, to mobilise the organisation to accept and work towards achieving the new vision, and to institutionalise the changes that must last over time."

P.9.

It is in achieving this that their purpose lies, and the ways in which they attempt this enormous undertaking represent a fascinating challenge. Knowing what they ought to be doing is a state with which many managers are familiar; actually knowing how to mobilise the resources of an organisation to work towards achieving a new vision, and to institutionalise the changes required in progressing towards this by gaining acceptance for them from those whom they most affect is a challenge of similar magnitude.

Tichy and Ulrich (1984) hinted at this when they said that the efforts to establish organisations structures which allow the best provision of information for managerial purposes cannot be lightly dismissed, nor can the size and magnitude of the challenge to do this be under-estimated. It demands a reorientation of organisation initiatives in establishing information, especially in organisation which have achieved success with structures which are primarily information prescriptive. Only if an understanding of the behaviour patterns of human beings in organisations are considered can progress be made. The alternative appears to be a loss of control on the part of those leading organisations and an increasing usage of personal information systems by those who are working within them.

In other words, if there is no strategy for maintaining overall involvement in, and cohesion towards, the corporate vision, then members of the organisation will presume their own individual vision in their own idiosyncratic ways.

Any model for effective information provision must be based on an organisational approach to change if it is to contribute towards the transformational process of achieving corporate goals. Implicit in what has been said earlier is the idea that if individuals are included in the change process e.g. by being appraised of the strategy which is to be applied and the reasons for its application, then they can be carried along and, 'transformed' at an organisational level. In the absence of such strategy they will be carried along by the pursuit of their own visions within the vehicle of the organisation, getting off as and when it suits them, and making the achievement of the corporate vision all the more difficult for the organisation leaders. The issue is the extent to which these leaders can evoke one vision of the organisations's future as opposed to an infinite number of visions of individuals about their own future, and achieve the highest degree of correlation between the two.

If the model for information provision being developed as a result of this research can make a contribution in this area, then another of the benefits of its utilisation may be to help leaders of organisations seeking to work towards a new vision, to retain and transform their existing staff to accepting and working towards its realisation. To do this in the first instance, they have to see the transformation as sufficiently beneficial to themselves to want to stay with the organisation and be a part of it. Subsequently, they then have to be convinced of the desirability of translating the ethereal to the real, a most complex process which demands a highly sophisticated strategy of continuous information provision and update. If the proposed mode can begin to address this problem, then it is hoped that a small step will have been taken towards its eventual solution. However, this is the unavoidable challenge in the area of developing a strategy to achieve in reality, a mental concept. This thesis would not presume to offer a solution merely the earliest beginnings of one, but it does recognise that the challenge exists, for, behind every piece of research which tells managers or anyone else what they should be doing, there lurks the unanswered, and often unaddressed question of how to do it.

3.5 The Life Cycle of Organisational Culture

Kilmann (1984) identifies stages in the evolution of an organisation's culture which are significant for information provision because they represent key shifts in the, "market", for provided information.

He suggests that when organisational cultures are young, driving and imaginative, then the information provided must represent adequately these values; similarly when the culture becomes mature it is an entity in itself the culture acquires a significance discreet from its members, reward systems, and other formal systems. It forms around a recognised need, and demands specific task requirements in order to perpetuate itself. Furthermore, it becomes immune from managers' efforts to change it if it does not support such efforts. It is, in short, a collection of embedded norms imposed by the need of

individuals for group acceptance and therefore the basis of group leverage through which these norms are achieved and maintained. Culture manifests itself through shared values, beliefs and expectations and represents the unwritten rules of the game. It can be such a powerful force that it puts itself beyond the reach of any level of management within the organisation to adapt and alter it once it becomes too severely entrenched. Such is the power of group leverage, that Kilmann (1984) has noted that in some organisations everyone assumes that they have no power to change the culture but that it exists at some other level in the organisation. To prevent cultural stasis, constant support from the formally documented systems of the organisation in the form of its bureaucracy, as well as the behaviour of top management for flexible approaches towards new problems, forward thinking and the identification and acceptance of new challenges, is critical. The importance of this must also be reflected in the reward systems which again orientate the efforts of the members of the organisation towards constant updating and cultural modification.

Gaining acceptance for a strategy of information provision at a cultural level within an organisation is, then, a key requirement of any model of information provision, because, having done this it is then able to play its part accommodating the evolutionary change necessary for every organisation to survive.

3.6 Summary

The major points arising from Chapter Three are:

1. Corporate culture establishes and maintains the norms of organisations, which, in turn determine the ways in which information is supplied and used.
2. Systems for the provision of information to managers must accommodate the social norms present in all organisations.
3. Organisational cultures need to be carefully managed if they are to remain adaptable to changes in the industrial and commercial marketplace.
4. Organisations with leaderships which promote a corporate strategy towards managing change are more likely to be successful in achieving their goals.
5. Organisational culture is often regarded as such a powerful force that those within an organisation may regard themselves as powerless to change it.

These are all further significant factors in the development of a model for the provision of information to managers.

Chapter Four

Information, "Fit"

as a

Determinant of the Usefulness of Information to Managers

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Chapter Four

4.1 Information "Fit" as a Determinant of Useful Information

The question of information, "fit", was raised at the end of Chapter one. Subsequently, the importance of the context of information provision contributed towards answering the question of how to achieve the best fit between the information provided and the ideal outcomes of such information. It is clear that providing information is not enough to ensure desired outcomes, hence the earlier reference to the "people problem". A strategy for ensuring the take-up and employment of this information is essential if the highest degree of fit between provided information and desired outcomes is to be achieved. In Chapter Three the influence of organisational culture on this issue was indicated. It has also been suggested that information provision needs a marketing strategy to ensure that it will have customers predisposed towards "buying" it.

The author of this thesis concludes that the concept of fit carries with it two issues: the fitness of the provided information for its purpose i.e. its quality; and the extent to which this "fitness" enhances the success of its customers in achieving their designated goals, and gaining recognition for contributing significantly to the success of the organisation.

Etzione (1975) says that the nature, and tenor of social exchanges is determined by the type of information resource offered by an organisation. This in turn determines the type of involvement which the individuals within that particular exchange actually have with the organisation. He further states that for social exchanges to be meaningful at all, it is important that the factors within them offer information from sources which are mutually desirable.

The author of this thesis believes that, "fit" is affected firstly by the balance between the goals of an organisation, and then quality of the information it provides to meet these goals and seconded by the

motivation of individuals in the organisation to respond to these demands in order to achieve personal success and gain recognition for their contribution from the organisation.

Leitko and Peterson (1982) express this in the principle of "voluntary assymetry" which states that the individual's perception of the worth of the information provided for managerial purposes is such that it elicits voluntary co-operation with the organisation's goals in any particular transaction.

Utilisation of provided information is the prerogative of the user. This fundamental factor means that that, "customer" for provided information needs both a product and a service which will convince him/her of the desired goals, and fit with his/her preferred decision making styles Granleese & Murray (1990).

Leitko and Peterson (1982) also recognise the pressure from external forces on information transactions. They mention the pressure from subordinate groups in an organisation who are concerned with legitimating their own interests, and they recognise that the general information environment within the organisation is a significant determinant of the use of information for its managerial purposes. This was also a theme of Heffler (1980) who states that the pluralistic power culture of any community, and its political culture effects the degree of fit between the information it provides and the information its managers use. He said there is also a significant correlation between the information which managers use, and their level of alignment with the overall objectives of the organisation which must be mentioned. This is determined by the extent to which they perceive their needs for acceptance and achievement to be recognised and satisfied by significant others in their organisation, in the opinion of the author of this thesis, and of McClelland (1961) quoted later in this chapter.¹ "Fit" is a critical factor in information provision and it is necessary to be aware of the variables which influence it if a useful model for the effective provision of information to managers is to be produced.

¹ page 61

4.2 Variables Influencing Information "Fit"

For Leitko and Peterson (1982), the best fit occurs between information provision and information use when the information concerned in some way legitimates the role which the manager for whom it is intended is performing. For them the most closely guarded, and therefore the most valuable information in a managerial process is that which effects the social area in which managers operate. Fit is at its highest when people are asked to account for their own behaviour in various social situations; the information they require to do this is that which is deemed to be most precious.

Dew and Gee (1972) suggest that the best fit is obtained when superiors and subordinates are in close agreement about the success criteria for a particular job, i.e. when the views of managers at all levels about the nature of a particular job are in agreement and therefore the information which is provided by the organisation is directly significant to the effective performance of that job. This echoes the Heffler (1980) notion of political culture and the way in which this can affect the degree of fit between the information provided and the information used for managerial purposes. Implicit in this is the idea of inefficiency and ineffectiveness, because any organisation which is providing information largely unused in its managerial processes is not in control of its own destiny and is also wasting a great deal of its time, money and effort in providing a useless resource. Dew and Gee (1972) suggest that agreement on the success criteria for any managerial job is the best way of achieving it, as it determines the type of control information necessary in effective task performance, and allows a greater correlation of the information provision from the organisation and therefore engenders greater security and trust from its managers.

They write:

"It is not enough that the information should be relevant. It is not sufficient that the information should be understood by the recipient, in the same way as it is understood by its producer. It is not enough that it comes in such a form and at such a time that the manager can use it to diagnose and evaluate alternative courses of action. for the control of information to be of value, there must be routine and regular reidentification of middle management's primary tasks and then the information needed to perform these tasks most effectively." P.91

So an understanding and appreciation of the managerial role is an essential factor in the achievement of effective information fit.

Furthermore, this understanding and appreciation must be the subject of constant revision and attention since the relevance of this understanding to the role actually being performed and the managerial processes actually being undertaken is critical to the provision information which will help the manager, and therefore imbue him/her with the confidence to manage new situations which change has brought about in the best possible way. Schensul (1980) states that the best information exchanges take place when both/all of the parties perceive the benefits from the encounter. This suggests that the worth of the information, its relevance, and its appropriateness to the tasks in hand, are critical factors in achieving effective fit between the provision of information and its actual usage.

Lawler and Drexler (1980) investigated the converse, and suggested that the main factor detracting from effective fit between information provision and information usage within an organisation was the awareness of individual managers of the purposes for which the information was intended, or required. The absence of any strategy

for communicating the worth of, or need for, the information provided, greatly diminished its usefulness. If provided information is not properly advertised and packaged, the chances of its being willingly, 'purchased', are lessened.

Accompanying the idea of the 'purchase' of provided information is the idea of the quality of the product. A product needs to have inherent value, and in the way in which this is being applied here it means that the information must have validity and pertinence to its customers. Lawler and Drexler (1980) suggest the degree of trust in the information provided determines the degrees of employment for managerial purposes and further, that this cannot be achieved unless there is an articulation of the role and purposes for which the information is useful within the organisation. If this is not the case there can be no effective transfer of information satisfying information needs of managers, role obligations and personal management style. Participation in the information creation process remains, an essential feature of effective information fit.

4.3 The Influence of Time on Information Fit

Kilmann (1984) as has already been mentioned earlier in this thesis, identified the significance of the time dimension's influence on organisational culture with his reference to young, mature and old organisation cultures.

The time factor cannot be ignored, because with it comes, inevitably, changes in information value and provision in response to innovations and evolution to the environment.

Grindlay (1984) identified the discrepancy between the potential impact information technology on a firm's fortunes and its actual impact. He maintained that the potential impact was great but that in many cases the actual impact may not be that much simply because the information provided might not take account of the environmental and situational variables which affect managers on an

immediate level, therefore making the formal provision of information less responsive to these vagaries than informal systems. There is, then, a need to review information provision continuously to ensure maximum usage of information by those for whom it is intended.

Leitko and Peterson (1982) support this view when they point out that information provided by an organisation must respond to social and strategic changes if it is to enjoy optimum usage. Harrison (1981) comments on the force of environment in influencing managerial decision-making indicating that any choices made which ignore environmental influence would be most unlikely to result in the making of decisions that would find ready acceptance.

The model of information provision needs to have built into it the capacity for review as a prominent feature. From the literature consulted the author of this thesis concludes that this is necessary on both a short and long-term basis to ensure relevance to the user and so the utilisation of it voluntarily in the managerial decision-making process because of its perceived value.

Review will also encourage the user's participation in the provision process because the quality of the information generated will be such that the needs of the user will be satisfied, and so this is regarded by the author of this thesis as a critical element of any model of information provision. Without ongoing, 'market research', the changing information needs of managers cannot be identified or satisfied.

4.4 The Fit Between Individuals and Their Organisations

Ellen Wallach (1983) speaking about the relationship between individuals and their organisations suggested that the best "fit" is obtained not only by employing criteria for judging performance effectiveness, but actually beginning to measure and understand within an organisation the methods used to achieve results.

She writes:

" how well you "fit in" with the organisation or culture becomes increasingly important. Eventually (sooner in some organisations, later in others), you must reach a point at which the finest performance in the world will not move you ahead unless you are also seen as "one of us" by the more powerful managers." P.30

Wallach (1983) maintains that fit is primarily a cultural matter, i.e. that it is the individual's level of acceptance by the others in the organisation which results in the greatest degree of "fit".

She also suggests the idea of, "inclusion", as a third dimension of organisational behaviour which is the means by which an individual can fit in to an organisation with the greatest degree of success. She says that this notion of inclusion is in fact a third dimension of movement in any organisation. Many managers are familiar with vertical movement either up or down the managerial scale, but Wallach (1983) postulates that a third dimension is the degree to which the individual is actually accepted into the centre, that is, given access to that central core of information, and confidentiality which provides the backbone of the organisation and which will support him/her in job performance. It is tangible proof of the acceptance of an individual by those significant others in his/her organisation, namely, the key decision-makers. Wallach (1983) says that there is a correlation in the final instance between the dimension of rank and the dimension of inclusion, suggesting that for an individual to actually be upwardly mobile within an organisation he/she has to be included and accepted into its most central norms and values.

For Wallach (1983) it seems that the fit is measured by the degree of proximity between the individual and this central set of values, norms and ideologies, which form the essential ethos of the organisation. This idea of the creation of an ambient context in which managers can achieve as much as possible of a desired goal was a definition of the role of a manager proposed by Koontz et al (1982) earlier in this thesis.¹

This degree of "fit" is achieved as a second stage in a two-stage process: in the first stage the individual will spend much time learning what things to do in order to discharge his/her managerial purposes effectively; however, the second stage represents a far more significant one in that the individual begins to learn how to get things done, that is, the methodology of operation and manipulation of the norms of the organisation, matching individual and organisational goals and needs to present any future ambitions and being able to reconcile these two and achieve, therefore, ambitions in a way that is seen as acceptable and meritorious by the most influential of the individual's contemporaries. Wallach (1983) says that to survive and thrive in an organisation an individual must operate within these cultural expectations and rules, and that only by doing so, can the individual's career actually progress along with his/her expectations. Wallach (1983) describes the whole process as "the inclusion phenomenon" by which she means that the significant dimension of being included is in fact a testimony to the individual's perceived worth by the others in the organisation. Any individual receiving the benefit of this inclusion can then be expected to achieve a high degree of "fit" within the organisation itself.

Wallach (1983) acknowledges that different organisational cultures will demand different morals, norms and ideologies from an individual in order to achieve this "fit". For example, innovative cultures will expect a high degree of commitment from an individual - even to the exclusion of family life; on the other hand, supportive cultures will be built on open and collaborative relationships in which negotiation of an individual's commitment relative to the ideals of the organisation is permitted.

Individuals with a propensity towards either of these organisational types will therefore achieve a greater cultural match between his/her needs and the organisation's needs. Wallach (1983) echoes McClelland's (1961) view that each individual has needs for achievement, affiliation and power in their make-up and these three factors and the way in which an organisations capable of matching the individual's expectation in these three areas is what determines essentially the fit between the individual and the organisation.

She writes:

"This model implies that an employee can be more effective in his/her current job and have a greater chance for "inclusion" (and promotion) when a motivation - culture "match" exists. If, too, the culture is appropriate to business, both the individual and the organisation will best realise their potentials." P.34

Wallach (1983) identifies a need for any organisation providing information for managerial purposes to recognise its own culture in the first instance and the information which represents the core of its norms, values and ideology. The type of people who will most readily receive acceptance and advancement within that culture will therefore have demands for certain types of information relative to their status and effective in order to enable them ambitions. She also makes the point that not only does a mismatch between organisational norms and individual expectations result in a loss of morale and work effectiveness, but also that the most frequent reason for an individual leaving an organisation is a cultural mismatch between his/her norms, values and expectations and the extent to which the organisation will recognise these and is prepared to facilitate these and therefore accept the individual and include him/her in its plans and future.

She writes:

"An understanding of the relationship between individual motivation, corporate culture and the phenomenon of inclusion is critical to your ability to be effective in your organisation." P.35

Pascale (1985) stressed the importance to organisations of 'socialising' new members into their culture in order to make them aware of how to get things done. He also draws attention to the dilemma of the conditioning of individuals for organisational purposes and the need for some social uniformity to help organisations to work better, and he acknowledges the role of "socialisation" of members in the survival and success of organisations.

There must be a recognition of the relationship between the organisation and the individual at the heart of any model of information provision. The three needs of an individual in his/her relationship with an organisation must be reflected in any strategy for information provision because these key areas of opportunity are the bedrock of the relationship between the system i.e. the organisation, and the actors within it, in whose power lies the extent to which its goals are achieved.

On a continuing basis, any organisation wishing to retain and develop its members needs to have the three areas of opportunity identified by Wallach (1983) as major elements in the information it provides and its strategy for providing that information.

Where the author can foresee problems arising from the three crucial needs of an individual which his/her organisation must address in order to promote the, "voluntary assymetry", of an individual with its strategic goals, as Leitko and Peterson (1982) describe it, is if significant others in an organisation judge that the expectations of an individual relative to these needs are unrealistic, insincere, or both.

Unless the individual is judged to have the capabilities to match their expectations then dissonance between the three needs mentioned, and the organisation's reaction to these will exist.

4.5 Summary

From this chapter the following significant points emerge:

1. "Information Fit" is influenced by the quality of the information it provides to meet its stated goals i.e. its fitness for purpose; and by the extent to which the user of the information can rely upon it to promote his/her chances of success in achieving their set objectives, and gaining recognition for contributing to the success of the organisation.
2. Leitko and Peterson (1982) suggest the best, information "fit" occurs when provided information legitimates the role of the manager.
3. Dew and Gee (1972) suggest that the best information "fit" is obtained when senior managers and their subordinates are in close agreement about the success criteria for a particular job.
4. Provided information must respond to changes in the situations of its users to ensure the greatest degree of, "fit", with their current needs. This requires a facility for continual review of provided information.
5. The extent to which any individual "fits" into an organisation is determined by the extent to which significant others in that organisation recognise the needs of the individual for achievement affiliation and power as realistic and can provide opportunities for their realisation.

These points raise the issue of the relationship between individuals and their organisations as a determinant of information provision and individual needs which is the topic of the next chapter.

Chapter Five

The Relationship between Individuals

and Their Organisation

as a Determinant of Information Provision and Needs

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Chapter Five

From the outset, the purpose of this research has been to attempt to devise a model of information provision, and it has become increasingly clear that such a model needs to be based upon the participation of end-users of the information provided in the provision process. Gorrey & Scott Morton (1989) make the point that the role of information systems is to support the decisions which managers make, and that these should develop from the managerial activity which takes place within organisations. Van de Ven (1986) says, the most challenging problem in managing complex organisations today is that of part - whole relations, and this, includes the relationship between the individual and his/her organisation.

The strategy which will be offered has this as its central tenet, and research such as that of Banbury (1975), Lusk and Wolfe (1975), Lawler and Drexler (1980) and Drucker (1988), to cite only a few of the examples from previous pages of this thesis, all focus upon the value of the participation of the individual for whom the information is being provided in the process of provision. The last chapter indicated that unless the end-user is involved in the determination of the information to be provided, then the enthusiasm to employ it will diminish, as will its relevance to the task in hand. The principles therefore suggest themselves:

1. Involvement in specifying informational requirements raises the motivation to use it - through the concept of partial ownership.
2. First hand knowledge of job content is a necessary requirement for information specification, though it is by no means the only requirement.

There is, then, a need to identify, from research literature, the factors which will most encourage the development of information ownership through participation in the provision process. These are of obvious significance to the construction of the model which will need to incorporate them because its ultimate aim is to attempt the formulation of a strategy which will lead to the optimum use of information by those for whom it is provided.

This chapter searches for those factors in two areas: the relationship between the individual and the organisation, to ascertain the main ways in which it influences the participation factor; and the variables which influence the perceived quality of information to its users, to determine the most significant ingredients of provided information which determine its desirability to those for whom it is provided. These factors will then be incorporated in the construction of the major areas of the model.

5.1 The Relationship Between Individuals And Their Organisations

Kilmann (1984) suggests that the structure, and culture, of an organisation are closely related, and that both of these conspire to determine how information is used. In a closed structure he says, that information is provided in order to exercise strict control, to reinforce social status, and generally to ensure an almost militaristic discipline. Alternatively, in open and adaptive organisational cultures information will be employed to achieve the clearly described goals of the organisation, and the members of it will be expected to participate in the design of these goals, the structures which are necessary for their achievement, and the norms which will bring them about. The overall aim here would be to use information to promote a greater coincidence between the desired norms and culture of the organisation and its actual norms and culture. In this way it can be seen that the organisational structure can affect information provision, and also the reverse is equally the case. The two appear to be bound up in a dynamic interplay of forces which can be complementary, if they are carefully and effectively managed, or antagonistic if they are not. Schein (1980) stated that, in its most extreme form, inter group competition in an organisation results in the breakdown of interaction and communication, but that groups in any organisation fulfil the psychological needs of their members.

The utilisation of provided information seems likely to be much greater where group influence is recognised and managed by the

organisation as a vital component of its corporate identity and a manifestation of its values and culture. Thompson and Wildavski (1986) emphasise the point that different organisational cultures promote different biases in the collection, utilisation and interpretation of information. They point out the mutual dependence which the hierarchy and lowerarchy of organisations have on one another suggesting that the hierarchy of the organisation utilises information which is provided for them having first been processed by the lowerarchy. They suggest that to understand the actions of people in organisations it is necessary to look at the relationship between those individuals and the organisation in which they are embedded, it is this which forms their behavioural rationale.

Thompson and Wildavski (1986) say that this determines the way they gather information and employ it, since the processes of information gathering and processing are also social skills and that these social skills are bounded and limited not by physiological or even technological boundaries but primarily by social and cultural limitations.

These establish limits to information management which are based upon socially induced short-cuts, such as rules of thumb, proverbs, or sixth senses. As a result, of these, rationality is bounded, and hence information rejected, or utilised, or ignored; and the whole of this process is based upon individual survival, social networks, the protection of group interest, and that which is important to group survival.

Each of these is a criterion for the rejection and acceptance of information based upon the way in which the individual conceptualises the environment with which he/she is interacting. The formal structure of that environment will mean that any or all of these differences can be going on simultaneously. In this respect Thompson and Wildavski (1986) define an organisation as:

".... Not so much a conceptual scheme as a structure that is sustained and transformed by a multiplicity of conflicting and contradictory conceptual schemes".

It is essentially, a pluralistic interplay of forces in which the possibility of a single well-defined goal is soon diluted in a number of diverse and conflicting goals. Organisational culture is a combination of shared values and social practices and the informational basis of an organisational culture flows from both what it is for and what it is against. As Hackman (1984) points out, the whole, ie the organisation will be less than the sum of the parts if those parts subtract from one another. In such cases synergy is a myth.

The above arguments lead the author of this thesis to the conclusion that social processes are highly significant determinants of organisational success. They determine its culture, the way it sets about its business, and the behavioural norms of its members which it fosters. They are manifestations of its philosophy which underpins all of its operations and systems. The direction of this thesis is to formulate a philosophy for the provision of information.

Any model for effective information provision must reflect these social parameters as a significant part of its strategy. Beer (1978) recognised this when he commented upon the potentially dysfunctional effect which an over emphasis on formal organisational structure can have upon its welfare. He argued that the amount of time and effort which goes into maintaining the man-made formal structure effectively prevents the organisation from addressing those problems which impinge most significantly on its welfare.

He writes:

"We manage a theoretical construct of reality not reality itself." P.75

In Beer's (1975) opinion, formal organisational structures exist chiefly to apportion blame when things go wrong rather than to directly facilitate the meeting of the challenges which are facing the organisation at any one time. He also suggests that formal organisational systems have the potency to protect themselves from harm and from change. In this respect Nader, Green and Seligman

(1976) agree with him suggesting this is especially the case with senior members of any company since, effectively, they hold the power to maintain the system and they choose the system which works for them. However, faced by a rapidly changing environment any organisational system can expect to have a shorter and shorter life expectancy, as Chandler (1962) stated. In order to evolve quickly enough to meet the challenge of change an organisation must allow managers to have the autonomy to generate as great a variety of control mechanisms as the situation can offer spontaneous developments in order for them to manage it. This Beer (1975) takes as evidence that organisations do not change themselves rather it is the individuals within them who determine the types and pace of change. He also says, that it is the inputs which alter systems and therefore he implies that external forces to those systems are also the agents of change. These forces can come from the outside environment of the organisation, or from individuals, or systems forming any of the organisation's other parts.

5.2 Provided Information and Individual Autonomy

Unless acceptance of the usefulness of provided information can be obtained from those for whom it is intended, then the full panoply of technological capability will not increase an organisation's business performance.

This acceptance and the process of achieving it, requires a strategy designed to produce the maximum of involvement from those affected because this acceptance is the gift which every individual brings to his/her workplace and has the ultimate right to bestow upon or withhold from his/her organisation. As Galbraith (1982) says, for innovation to occur in an organisation knowledge of all key components must be coupled simultaneously, and the best way to have this happen is for it to occur intrapersonally. This is the essence of effective involvement between the individual and his/her organisation and the impetus for it comes from within the individual him or herself.

The power released from individuals who have given this moral involvement to their organisation, has been recognised as a critical factor in its ability to compete in its market.

Hallett (1985) wrote:

"We are now competing for people's minds and for their hearts. It is easy to get people to work. It is not so easy to create the conditions that cause them to be fully involved in what they are doing." P.17

Furthermore, he makes the point that what will make the difference today between an organisation's ability to distinguish itself from its competitors in the market place through its creative use of technology for production in particular, is in fact the behaviour of the people in the organisation associated with the production and information process. He quotes the new 80/20 rule:

"80% of what any organisation does can be done equally well by any other organisation; therefore, competitive success depends entirely upon the other 20% - which is people." P.70

In this situation the real management skills of the future will be those which build spirit, enthusiasm and trust in the people who are using technology in order to ensure the viability and profitability of their organisation. McNichols (1988) pointed out the challenge of managing and developing the human resource as being one of the most formidable of the future.

The information conveyed to them will have to further this purpose and be based on humanistic factors rather than simply on technique, method and result which have been traditionally perceived to be the areas in which information has the most value to an organisation. If it is to be accepted by those for whom it is intended.

The only thing unique about any organisation now or in the future, in the opinion of the author, is its people. The best information fit therefore will be achieved by a recognition on the part of those guiding the welfare and future of the firm of the importance of the needs of the people who make decisions on behalf of the organisation at whatever level, and the extent to which these have been internalised by those people, and manifested in their approach to the work.

From the time of Taylor's (1911) scientific management theory, it has been axiomatic that businesses could be run with a reluctant or moderately reluctant workforce; the organisations of the future will be unable to perform effectively with this ethos, in the opinion of the author of this thesis. There is a need to move to a new phase of management skill and awareness which involves the recognition of the importance of people with the organisation because of the needs and expectations they now bring to the work situation, and because of the growing realisation of their importance to an organisation's success. The provision of information has to be guided, in the first instance, by this understanding. We return once more to the principle of "inclusion" propounded by Wallach (1983), and that of, "voluntary assymetry" from Leitko and Peterson (1982).

The opinion of the author of this thesis is that people are any organisation's best resource, and the value of any model for information provision will be in the extent to which it is able to promote their involvement in the process of information provision, and hence the utilisation of the provided information for their managerial purposes.

5.3 Interpersonal Skills and Information Provision

Throughout this research, the theme of involving the end-user to the greatest possible extent in the provision process, has regularly and frequently reoccurred in the literature consulted. However, the author feels that this participation can only be achieved through the employment of inter-personal skills.

Diprimio (1984) noted that the needs of the user should be given precedence in any information resource strategy. His approach for ensuring the highest degree of "fit" between information provision and usage consisted of the appointment and development of an Information Resource Management (IRM) Officer. He regarded this as an inevitable result of the evolutionary process of computer utilisation in organisations which has resulted in a shift in emphasis from automating manual data processing systems to automating information processing systems. It is interesting to note that in Diprimio's (1984) research specification for an IRM officer the inter-personal skills are those which are most keenly emphasised.

It is in the spheres of human interaction and technical expertise, with perhaps the former most emphasised, that the success of such a role emerges. He points out that it is lack of enthusiasm which often causes information systems to be under-utilised and often abandoned, and that this in turn is often a result of a prescriptively technological approach to information provision. Rockart and Short (1989) say managing interdependence between all areas of an organisation is a primary strategy for responding to competitive forces.

Conversely, those systems which are most frequently used are the ones in which the users themselves have most influence and that in allowing people to exercise their influence in a positive way the best usage of information, i.e. "fit" can be obtained. Diprimio (1984) writes:

"Information enables people to overcome uncertainty. And control over information access gives people real power over groups that need this information. Control over data includes determining what information will be collected, what will be done with it, what will be edited, and who gets to see it."

P.75

We are back to the notion of information and control mentioned earlier in this dissertation. The question of control and user involvement occupies a central position in the provision of information.

On the one hand the people who provide the information can exercise some control, on the other the people who use it can always exercise their basic human right to disregard this information, irrespective of its worth almost, and continue to utilise information on a personal and idiosyncratic level in the pursuit of their managerial purposes.

Galbraith (1973) had earlier identified the problem of uncertainty caused by a deficit of information. However, Diprimio (1984) directly approaches the consequence of such a lack of information. This is an absence of power to control situations and, to some extent, the actors within those situations. His point is that the provision of information carries within it the capability to control, at least in part, those for whom it is provided. This is only valid in so far as they are prepared to utilise that information and their criteria for so doing.

Persuading them to use it involves at least to some extent, an interpersonal skill strategy on which any model for information provision must, therefore, be based. It has already been recognised in this thesis that such a strategy must also take into account perceived benefits by those for whom the information is being provided, for using the product.

Chief of these is the reduction of stress. Decisions reached unilaterally carry with them higher risk, because they have to be justified by the individual making them to the establishment. Those decisions reached as a result of provided information can be more readily justified because the information source is established, and are therefore of lower risk status. This stress which is often the product of the uncertainty alluded to by Diprimio (1984) is also recognised as a significant factor by Simpson (1987) who said that the principle of sharing information and developing behaviours which will enable individuals in an organisation to talk about their problems openly and honestly, would not only do much to alleviate stress, but also do much to ensure that the information which they needed in order to achieve this relief was actually provided by the organisation.

Interpersonal skill which is required to elicit this information is fundamental to ensuring this provision. Diprimio (1984) suggests that the desire to set new goals and achieve these is a fundamental and necessary human drive. However, if, when having set the goals, there does not exist the means or the information provision to achieve them then the stress induced can be damaging. The implication here is that a crucial part of the strategic planning process and of the realisation of these plans, is the development of a system of information provision which will make the goals it contains achievable. Unless these goals are shared, and their value recognised, then they will not be achieved.

The view is supported by the Kepner-Tregoe survey which was published in "Management Today" (1987). It revealed that where there was a strategic plan, the absence of any significant involvement by other managers with the overall planning process made it impossible to fit information provision for the achievement of its goals into the overall strategy. Where this was found to be the case then it showed that the strategy was doomed to failure.

When no strategy for information provision exists then the author of this thesis concludes that all any manager can do is to revert to his/her own area of influence and discharge the duties the best they can using their own personalised information systems. So an information planning strategy is, in the first instance, bound up with an overall organisational strategy, bound up in turn with the statement of a few clear objectives which everyone understands and can work towards. Without clearly stated and mutually accepted objectives and a system of information provision for achieving these, managers cannot have any real involvement or fit between their own managerial functions and the overall aims of the organisation. Unless they ally their efforts to an overall strategy, supported by a strategy for information provision, there cannot be anything other than individual rather than organisation managerial achievement.

The Kepner-Tregoe (1987) survey also points out that the biggest obstacle to this is often the senior people in the organisation who feel

that any new approaches such as of shared objective setting and consultative information provision are a direct challenge to their authority and possibly an affront to their competence and judgment. However rational or irrational, this may seem the fact is that it is once again the human behavioural aspect which determines the disparity between the theoretical exhortations of experts, and the real world of organisational management and information provision.

The value of involving as many managers as possible in information provision and organisational goal-setting is obvious, from the work quoted so far in this thesis. Without it there can be no ownership of information, and without such ownership, there can be little hope of the extensive application of provided information. However, in this case we are called to recognise the custodians of the organisation's culture as a major barrier to effective information provision.

Quinn (1986) says the most innovative organisations have executives with a clear idea of the value of innovation in achieving business goals, and of their objectives for their organisations future success. However, whilst there are organisations like Toyota, which foster innovation as a major part of their strategy for business growth and success there are many others whose evolution is hampered by a slavish subservience to existing systems and attitudes which only attention from senior management can eradicate (Lloyd 1990).

5.4 'Trust' As A Factor In The Recognition Of "Valuable" Information

For McDonagh (1983) 'trust' represented the key determinant of the individual's recognition of valuable information. He suggests that at a personal level he trusts:

'... Those who have demonstrated an ability and willingness to see me whole that is, to view my efforts and accomplishments against my commitments and within the context of the circumstances within which I operate." P.191

It appears that the importance of this lies in the ability of an organisation to see the efforts of any of its individuals within the context of the circumstances in which that individual is placed, before it passes judgment about the quality and appropriateness of the efforts being made by that person. If this can be achieved then the degree of trust which the manager will demonstrate will mean a significant, and close alignment with the goals and purposes of his/her organisation. In the reverse instance, then the managers will suffer stress of being judged by someone else in the organisation who may possess a framework in which that judgment is made which could be partially or entirely different from the framework in which the manager being judged is currently operating.

The extent to which the individual manager can trust the organisation to judge his/her efforts according to an appropriate frame of reference, will in turn determine the acceptance of the individual managers reliance upon formal systems of information. If, in the event of this trust not being especially high, then the individual manager would necessarily have to have recourse to his/her own systems of information in order to achieve his/her objectives and goals. The notion of seeing people whole has within it the capacity to value their worth:

".... To value our contribution within a time space context that takes into account the special skills, efforts and circumstances which define the situation. Trust then, is the demonstrated capacity of others to see me whole at those crucial times when the quality and appropriateness of my efforts are being judged or challenged." P.192

He goes on to point out:

"The key to understanding accountability is to see it as a process or struggle to determine whose frame of reference accountability will be measured against."
P.192

It is essential if trust is to be maintained that the efforts of an individual be judged within his/her frame of reference where their efforts, intentions and accomplishments, can be evaluated in line with the expectations which they hold. In the event of an individual's efforts being judged by someone else's frame of reference, or, by someone else's frame of reference being imposed on an individual, then that individual has more responsibility but less control in terms of holding others accountable to his/her viewpoint. If an organisation provides an information system which demands that an individual manager be accountable to the organisation to a greater degree, then that manager is liable to resist it to a proportionate extent simply because of the increased accountability to the system it demands, there is no proportionate increase in the accountability of the system to the manager. McDonagh (1983) suggests that the desire to be seen "whole" makes people reject the idea of being dominated by others. He suggests people demand recognition of their point of view and this demand is growing and will eventually lead to a more stable and productive set of organisational relationships. However, in the short-term this desire to be seen whole is possibly the motivating force behind the increased reluctance of individuals to accept imposed authority whether it be in terms of the information system which an organisation provides or in any other way. The imposition of external systems of information or control suggest that an individual cannot be trusted to develop these for him/herself. So the individual's propensity to develop his/her own information systems may be measured in terms of the extent of the failure of his/her organisation to see the individual as "whole".

The central point of this is that accountability is a two-way process. Organisations cannot make individuals simply accountable to them without also making themselves accountable to the individual to provide information which is congruent with the efforts, intentions and achievements of that individual in his/her specific context.

There exists the demand to have this context recognised by individuals, i.e. to be seen as "whole" which the organisation must recognise if its provision of information is to be actually used by its managers for

their managerial purposes. One of the most valuable states to promote in any organisation is trust among its members if a corporate vision of the future is to become a reality. The basic generating force for this trust is the information by which individual performance is judged, because it comprises the frame of reference for judgment. The proposed model, which is the end product of this research, has a role in promoting this trust by providing a strategy for information provision which will promote the development of a frame of reference which will allow individuals influence over the frame of reference by which they are to be judged by encouraging their participation in the information provision process. Recognising McDonagh's (1983) plea means that there must be an emphasis on the contribution of the individual to the implementation of the strategy which is both significant and continuous.

5.5 Factors which Promote a Positive Relationship between Individuals and their Organisation

(a) Moving the Decision-Making Point

Galbraith (1973) says that if the environment of an organisation allows people to operate with confidence and autonomy, then the number of exceptional cases which need to be referred upwards, producing hierarchal overload in terms of decision-making will be consequently reduced. He advocates a movement of the decision-making process down to the level in an organisation where the information exists rather than an upward referral of decision-making as being one of the key ways in which an organisation can make rapid responses to its markets.

By doing so Galbraith (1973) is suggesting that the decision-making process be devolved to that part of the organisation where information of the best quality exists at the time when the decision needs to be made.

If done, an organisation would be able to respond more quickly than if the entire decision-making function were the preserve of one group within it with executive power, and to whom all decisions pending need to be referred. To the author of this thesis, this concept implies that some managers are in possession of that information which allows them to make decisions on a scale of years e.g. about a strategic plan; others need information to enable them to make decisions on a monthly or daily basis. The point is that these are different types of decisions which need to be taken at different times and need different information and different familiarity with current events. To concentrate all of these decisions on one group of managers is wasteful in terms of time and effort. Devolving the decision-making to the most appropriate level in an organisation is an attempt to ensure that managers make the decisions they ought to make, which is determined by the information they have in their possession at the time when the decision needs making. They cannot abdicate this to someone else in the organisation who may have a more elevated status, but not have the most valuable information on which to base the decision. This concept is the basis of total quality management theory such as that postulated by Deming and discussed by Hodgson (1987).

However, unless there is the requisite degree of trust within the organisation, then it is difficult to see how the opportunity for the movement of the decision-making facility to the most appropriate level of the organisation can be made.

Moving the decision-making point of an organisation to that level where the information exists becomes a key factor in ensuring a positive relationship between the individual and the organisation, and, in turn, one which will promote the involvement of the individual in the information provision process because instead of simply being information relays; they will become accountable for making the best possible

decision with the existing information; this will increase their interest in the quality of the information on which the decision is based and the process of providing that information.

The suggestion here is that the decision-making privilege be spread wider throughout an organisation which involves more people in a more positive way with the future welfare of the organisation bound up in the decisions they make on its behalf, but poses problems of the co-ordination and communication of the collective strategy of the organisation to ensure the maintenance of its overall mission.

(b) Emphasising Individual Worth

Collier and Seiler (1979) identify four key areas in which organisations can encourage individual involvement in the information provision process, the good of the organisation as well as the advantage of the individuals themselves, by:-

1. Monitoring the health of people within the organisation.
2. Ensuring information input procedures are as simple and as quick as possible.
3. Identification of most valuable and therefore most pressurised information.
4. Providing adequate training to ensure that individuals expect to use specific systems can do so with confidence.

In all four points there is evident the theme of preparation. If the organisation prepares itself and its people thoroughly enough for events before they happen, then the more likely it is that these will be successfully negotiated. Of course, it is impossible to be thoroughly prepared for every event, but, to the extent to which preparation of its members is possible, an organisation needs some strategy for providing information

about change or events which takes into account the human needs of its members, and is capable in whole or in part of prompt implementation.

The author is reminded here of the research findings of Dennison (1987) who concluded that the objection which people in organisations have to change is frequently not with the change itself but with the manner in which it is introduced. The model for providing information effectively in an organisation to be proposed by this research has an obvious role here in introducing change in an acceptable way to the people whom it affects.

A further factor identified by Collins and Seiler (1979) relates to the size of the organisation and to its bureaucratic orientation. They suggest that in organisations which are large there will be a corresponding lack of goal cohesion, and along with this there will be a commensurate lack of moral involvement on the part of the individuals within the organisation, with its goals and aims. The bureaucratic orientation of an organisation may be dysfunctional because excessive attention to procedures can lead to a ritualistic approach to data input; in such cases individuals become disassociated from the need and purpose of the data which they are handling and therefore begin to disregard quality assurance standards. We return to the work of McClelland (1965), Leitko and Peterson (1982) and Wallach (1983) on the fit between individuals and their organisations. The implication is that the more involved with the final decision an individual is, the greater is likely to be his/her concern about the quality of the information on which it is based.

The worth of information, its value and its significance needs as well as the value and significance of those who process it and provide it for the end-users needs to be continually emphasised in large organisations if quality of information is to be sustained.

Once the fidelity of information provided by formal information systems is doubted, then the trust which can be attributed to it disappears likewise, in such circumstances, it can only be that managers will use information in which they have more faith, and this will lead to a corresponding growth in personal, informal information utilisation.

Lawler (1975) says that this could be particularly the case with the most important information which an organisation needs, because it is that information which is liable to be subjected to the most demand and consequently have most pressure placed upon it. Particular attention must be paid to the principles outlined above with relation to essential core information, because the people who are providing the information have by the fact that they are inputting it into the information channels of the organisation, great control over its quality and usability. In cases where there is some doubt about either of these two, then the value of the information, and its usefulness for managerial purposes declines. Lawler (1976) found from his field research that even the most valued and trusted employees who work with the organisation's information, need careful monitoring, because it was these who were most likely to resist changes or new systems because they could be perceived as potential threats to status. Any attempt therefore to change these systems could be construed by them as a threat to their status and it may be either actively or passively that such employees would be inclined to sabotage these.

Coch and French stated as long ago as 1948 that there was a psychological resistance to system change, and it may be that the findings of Lawler are testimony to the veracity of this conclusion but most especially in the case of employees of senior status.

The idea that the strategy for information provision relevant to anticipated organisational changes needs directing at the most valued and trusted employees because it is from this group that

most resistance can be anticipated, is a provocative one. It has pertinence for the model because if such employees can become "sponsors", for the proposed changes by being involved in the process of providing information for them, then this comprises a key part of a strategy.

(c) **Effective Provision**

Eichhorn (1980) suggests four factors for encouraging the employment of information by users.

1. The management of information usage by eliminating unscheduled and often unsuccessful communication activity by providing effective timely information which anticipates and which is responsive to the needs of its managers.
2. Ensuring that information storage is as simple as possible.
3. Making certain that quality assurance levels of the decision support systems are unimpeachable.
4. Developing systems to take over the routine work which demands a manager's time.

In all of these instances the benefits of utilising information provided technologically or otherwise by an organisation should be measured in terms of its value to the people using it.

It is this which is the basic criterion of information provision, bringing us back once again to the human factor as a prominent feature of any proposed model.

For Louis (1980) the most important information to an individual was that which enables him/her to build up a comprehensive perspective on their organisational

surroundings, the people with whom they have to interact, and the norms of behaviour which are expected to influence action and interpersonal relationships. The importance of the latter must not, in the opinion of the author of this thesis, be overlooked.

5.6 Summary

The most significant points of information made by this chapter are:-

1. The factor which determines the selection of information for management purposes is the way in which the individual manager conceptualises the norms and values of the organisation with which he/she is interacting.
2. The success of an organisation lies in the ability of its management to fully involve the people in it in its goals and the tasks which must be undertaken to achieve them.
3. The systems of information which are most frequently used are those over which the users themselves have most influence.
4. Considerable interpersonal skill is required to elicit from users the information they need for their managerial purposes.
5. The ability of an organisation to view the efforts of its managers within the context of the circumstances in which its managers are placed is the basis of the trust which the manager has towards his/her organisation, and the basis of his/her alignment with the goals of the organisation.
6. Effective information provision allows the movement of decision-making capability to the most appropriate point in the organisation.
7. Valuing the human resource of an organisation means having a strategy for providing, as far as possible, information about changes and events which takes into account the human needs of its members.
8. The value of information provided by an organisation should be measured by its value to the people using it.

This brings us to a consideration of the types of information most useful to managers.

Chapter Six

The Types of Information Most Useful to Managers

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Chapter Six

In the first chapter of this dissertation it was suggested that:

".....to achieve the greatest possible degree of fit between the ideal and the real is the most fundamental of managerial purposes....." P.14

The purpose of the thesis has been to unearth and evaluate insights which can make a contribution to the construction of a model for the effective provision of information to managers. How managers set about reconciling, as far as possible, the ideal in terms of policies, and the real in terms of their implementation through others in the organisation, is one of the key determinants of their success. The difficulty lies in obtaining the commitment of the inner selves of those within the organisation in the achievement of goals which are part of their immediate external environment. To do so requires a strategy or strategies, which based on information which managers find most useful in achieving their goals. In most organisations plans for future direction are made by one set of people and implemented by another as Galbraith (1973) implies, therefore it is highly unlikely, for there to be a complete correlation between the final situation envisaged at the planning stage and the final situation. The phrase, "the greatest possible degree of 'fit'," acknowledges this, and implies that there must exist some principles for achieving understanding of the types of information most useful to managers for their managerial purposes.

6.1 How Users Recognise, "Valuable" Information

It is not the intention of this section of the thesis to depart upon a philosophical discourse about the notion of value. The word has been placed in parenthesis in order to emphasise it as an overall theme of the section dealing with information which takes its basic notion the uniqueness of every individual, and therefore their propensity to place different values on information. Consequently, what is 'valuable' to one individual, may not be to another.

This section examines some of the ideas advanced for the different values placed on information by different people. Using the definition of information as a difference in matter energy which affects uncertainty.¹

Fiske and Linville (1980) suggest that the key process which determines the sources and variety of information which people, and managers use is determined by schemas. It is these which guide the processing of new information, and the retrieval of old information. This was also alluded to by Thompson and Wildavsky (1986) who said as a result of their extensive field research that they found that all organisation was perforce bias. Fiske and Linville (1980) write:

"The schema concept refers to cognitive structures of organised prior knowledge abstracted from experience with specific instances; schemas guide the processing of new information and the retrieval of stores information." P.543

This suggests that it is schemas which facilitate memory and it is these which are especially useful in the management of complex knowledge domains. Like Harrison (1981), Fiske and Linville (1980) say that people prefer to handle even the most complex problems by utilising systems of role, search and choice, and it is schemas which enable them to do this. They also make the point that it is schemas which guide our social interaction:

"....The concept comes embedded in a general cognitive framework for perception, memory, inference, and evaluation. Thus, the schema concept approaches the level of metaconstruct, and the meaning of the concept is fixed by its interrelations with other mental constructs within a given theoretical system." P.545

This says that the process by which we manage our social relations is tied to the processes of extracting schemas from experience, indexing these by certain concepts, then evoking them to match with new information in order to reconcile that information to previously held actions and beliefs. Leading us to the conclusion that it is the knowledge structure of a manager which, in the first instance, is the fundamental determinant of how he/she performs the managerial process. All schemata and the acquisition of new knowledge base and the schema concept emphasises how people process information across social and non-social domains. As Fiske and Linville (1980) point out:

"...Information - processing factors obviously underline much of social behaviour and social perception. The links are likely to be complex rather than simple and the underlying mechanisms are likely to be multiple. But the link between schematic basis of cognition and behaviour is an untapped gold mine." P.549

So information processing appears to be, according to the schema principle, the basis by which we evaluate information and we employ, or disregard, it for our social and professional purposes. In addition, Fiske and Linville (1980) suggest that people have category based expectations, and through these turn data into information because by attribution, data supplied from the knowledge base is turned into explainable and meaningful phenomena to the person, or manager, possessing them. This it is suggested is the basis of the essential idiosyncratic approach to the management of information, which is the prerogative of every individual. The key area of this appears to be the link between the schematic basis of cognition and that of behaviour. It must be pointed out that this research appears to be yet in its infancy but the potential is exciting because, the authors claim that if it is provable that behaviour is prompted by cognition, which is in turn inspired by the schema which the organism possesses, then the way we use information for our purposes, managerial or

otherwise, will be determined by the mental patterns which we have as a result of past experience and knowledge. Schema's, it is suggested, determine which data are congruent and which are incongruent to a given concept and so they are the connecting links between the relevant situation and the individual's information base. Schema's which have incongruent data, relative to previous experience, will be primarily attended to during acquisition, while those schema which have congruent data will be most accessible during retrieval, because clear access routes to them already exist, whilst in the former case these have yet to be established and the new schema incorporated into the individual's knowledge base. At a psychological level then the schema concept gives use at least the beginnings of an explanation about the sources and variety of information which managers use, and the reason why this will always be used in an idiosyncratic way. The schema idea, implies that all social cognition is the result of the mental structures which the individual has, and from which he/she can draw in order to make sense of his/her world.

Believing this appears to demand an act of faith because it would appear that belief in this unique mental structure possessed by every individual, is essentially unresearchable, and in this respect it can only be compared to a religious faith. However, at least it appears to offer some indication of the fundamental reason for the preferences which individual managers necessarily show in selecting the source and variety of information which they use for managerial purposes.

6.2 Factors Influencing The Quality Of Information To Users

John Nemeec (1982) after an extensive field research programme suggested the principle of a "quadruple quality trait" as being that which would ensure the optimum usage of information. He based this upon the principles of conciseness, accuracy, comprehensiveness, and topicality which he felt to be four key features in this trait which would determine the overall usefulness of any information provided for managerial purposes. In addition, he offered a verbal systems check-list for improving the quality of information provision based upon four further points:

1. The elimination of the subjective viewpoint with regard to information by the removal of irrelevant opinion.
2. Reaching the core of meaning and ruthlessly editing out all which does not pertain to the overall purpose of the communication.
3. Obtaining an information audience as directly and quickly as possible by utilising as many technical telecommunication aids as possible.
4. Developing a standard response bank to routine communications to enable the time to be released to more actively address the information which is most pertinent to the key areas of decision making the managerial role.

For Nemec (1982) information is most useful when it enables the effective planning of business as well as operations. This suggests that information is pluralistic in its nature and enables managers to manage their role as well as their function. It could be concluded that information which is most frequently employed by managers is behavioristic in its implication as well as operational in its functions. The former aspect may have been largely neglected in recent years because of a preoccupation with function rather than role. However, as can be seen from the research cited previously, there is a growing awareness of the need for information to be relevant to the manager in his/her role in order to be effectively used. That which is of perceived usefulness in the effective discharging of this role will, it is suggested by Nemec (1982) be enthusiastically employed by managers in the discharge of their role. Nemec (1982) suggests this notion of integrated information systems which will enable managers to share key areas of information as superior to the stand alone approach to information current in many organisations with all its problems of duplication and replication. He suggests that this offers the design of a new database based upon the provision in organisations of information centres:

"Information centres were created to educate the user in maintenance development and action with applied software. Their staff is comprised of product specialists, consultants, and the manager, who may eventually assist the user towards his own application fulfilment." P.30

Implied in this quotation is a notion of progress from the development of a centre which will offer expert advice to a manager to the projection of that expert advice by the manager of the centre who may, and this is emphasised, eventually assist, the user towards his own application fulfilment. There is then the notion of customising information to the users needs as a derivative of the origin provision of information from a database. The move to this application fulfilment can be achieved by offering facilities for analysing the number, type and volume of business transactions, monitoring these, and submitting additional support information for managers requiring core information in relevant areas. For Nemec (1982) this represents the "hard information" sought by managers because it anticipates problems that they will face in certain key areas of their managerial function, and offer them support in technical planning, the management of emergency or unexpected conditions, strategic financial planning, and enhance decision making confidence. It is in these additional applications of information services that the usefulness of information lies according to Nemec (1982) and if formal information systems are able to recognise this and provide the information specified, then these information centres will become an integral part of the organisation's provision of information.

The relevance of the information to the needs of the individual within his/her context, and refining the purity of information through the quadruple quality trait net will enhance its value to the user.

6.3 The Survival Factor As A Determinant Of Quality Information

From the literature surveyed, the theme of self interest runs through that dealing with determinants of the quality of information to users. Success in terms of job performance approved by the culture of the organisation is recognised as a most powerful achievement and, by association, that information which enhances the chance of achieving that success is perceived to be most desirable.

After an extensive field research programme Dew and Gee (1972) concluded that the information which managers are most likely to use in the managerial process is that which would lead most directly to a successful job performance as judged by both the managers themselves and by those to whom they relate in the organisational structure irrespective of their status point. That managers will use information which helps them to be successful in the view of their superiors and subordinates, has implications for the manager's status as well as his operational efficiency. Katz (1980) said that newcomers to an organisation ought to be given accurate information about their jobs to minimise the discomfort and frustration often felt by those who enter an organisation with idealistic views of the role only to be confronted by the trauma of reality. Honest information about their role would be much more conducive to the promotion of survival, he argues.

Zurkowski (1978) says essentially that managers will use information which they can control and which helps them to control their managerial situation, this perceived worth of information appears to be critical and has pertinence to the way in which the information resources which the organisation possesses is marketed to its potential users.

Altman (1979) says the most effective information for management purposes would be that which is pertinent to the manager's perceived activities. This implies that the information has been structured according to the use which would be made of it rather than according to the systems capability to supply information on an ad hoc basis.

Lusk and Wolf (1975) emphasises the improvement of confidence in managerial decision making as being the key factor in determining the optimum usage of information.

They write:

"The important points of the database information system are the use knowledgeable managers can make of this new capability. A manager, aware of the data now available can make decisions with more confidence that it is a profitable decision." P.40

It is, then, the confidence factor which determines the utilisation of information, because, for Lusk and Wolf (1975) it is this which enables the manager to know that the decisions are for the benefit rather than the detriment of his/her organisation, and themselves. This economic benefit is clearly indicated by them:

"The economic justification for Data Base Management Information System is formulated on the expectation that the increase in managerial expertise afforded by the information system will result in increased organisational profits in excess of the cost of maintaining the system." P.36

Like most managerial activity, that of providing information has to have value in the profit earning area. The ability of managers to earn money, and generate profit for their organisations is a key determinant of their prowess and career path towards success.

Thain (1978) as mentioned in Chapter Two suggests that the information which managers will use at the highest level in organisations, concentrates on its capacity to get results. The "result getting leverage" of information is, for him, that which is best able to satisfy the objectives and goals of the organisation. Information which leads to the satisfaction of the expectations of the powerful

figures in the organisation is that which is most valued by managers. It could be that the individual perceptions of what this success is, and the expectation which are held of any particular manager, will be what adds the idiosyncratic quality of interpretation and attribution to information, and make it more or less preferable in a specific managerial situation. Unless there is a strategy for providing this information in a comprehensive way to managers, the expectations of their 'peers' vision of the organisation's future can never be met.

6.4 The Influence Of Information In The Promotion Of Synergy

The provision of information and the purpose or purposes for which it is provided, have a central function in actually promoting a greater awareness of the needs of the whole organisation and impressing this upon the individuals in order to have it reflected in their various operational functions.

Drucker (1988) has no doubt about the make up of organisations which will achieve this in the future:

"...The typical business will be knowledge-based, an organisation composed largely of specialists who direct and discipline their own performance through organised feedback from colleagues, customers, and headquarters." P.45

He emphasises the proximity of information and need in this provision, suggesting that information will be directed at the specialist whose skill and expertise will determine how it is used. He also suggests that the need for service staff will be taken over by technological systems, which will be responsible for providing knowledge, with traditional departments being utilised as the guardians of standards and centres for training and assigning specialists to the various organisational areas requiring them. The whole orientation of this vision is on task focussed teams and the employment of organisational resources almost exclusively on those

areas of it where the work gets done. He advocates the replacement of sequence, where information is passed up or down by a series of well defined steps, by synchrony in which teams of specialists focus upon key areas of the organisations work where best results are obtained, and all of the information required to obtain these is directed to them.

This vision is echoed by Canning (1984) who suggest that by the 1990's companies will spend more on information technology than on basic industrial processes. From this global statement Drucker (1988) points the direction in which this information technology will be going, namely, to enable decisions to be made on the basis of information diagnosis, and moving away from opinion into the area of justifiable choice.

However, it must be pointed out that the aim to promote such co-operation and the development of flexible inter-related outward thinking structures is a major task in itself and demands a thorough appraisal of the current education and management development systems which society currently imposes. It would appear that hitherto in the opinion of the author of this thesis, our education in a classically academic sense, is conducted in isolation. Every ultimate quality control and assurance test which is applied to all those offering themselves to be educated by the formal system, is applied via examination. These examinations promote the notion of isolation by their very nature because they exist to find out what people can achieve in controlled conditions. In many respects, the people with the highest academic qualifications are capable of managing in isolated circumstances and have done so for far longer than many others not so gifted. The point is that all of this conditions people to work alongside one another but seldom with one another in groups. It is therefore not surprising that the skills of working with groups in order to achieve objectives are rather scarce among many managers, particularly those with academic qualifications, because these are often used to engineer occupation of the most influential managerial positions in any organisation. We therefore face the dilemma of having people who may be brilliant in an analytical sense, and

creative in the solutions which they actually propose to a variety of problems, lacking the interpersonal skills required to carry people along with these solutions, gain their commitment, and involve them in the actual realisation of these theoretical solutions. It seems that irrespective of the information provision of any organisation, if the behavioral skills do not exist to encourage and persuade the members to internalise and enact solutions of which they are a meaningful part, then all the information provision in the world will not in fact result in a satisfactory outcome to proposed solutions. Perhaps this is most obviously manifested in many organisations where lots of people are fully aware of what the solutions are to a variety of problems being faced, but no one is actually able to implement these solutions, simply because, it appears, that the skill to motivate and involve the very people whom a solution most affects, is missing. The "Peter Principle" of management is therefore an unkind truism since, if promoted into an environment which demands skills which have never been considered, or taught, or developed, one cannot expect anything else other than understandable incompetence. This point is the fulcrum of the relationship between information provision and information use for managerial purposes.

6.5 The Types Of Information Most Useful To Managers

Having considered the aspects of the usefulness of information to managers, the following points represent important features for a model which seeks to produce a strategy for the effective provision of information to managers.

1. It has to contribute to the development of a marketing strategy by which an organisation can provide information to its managers.
2. Participation in determining information needs is as important as ensuring scope and flexibility for the continuous updating of these needs.

3. The culture of the organisation will determine what information which is seen to be valuable, and any model for information provision must contain within it a means of developing an organisational culture supportive towards it.
4. There is a need to recognise the need for a strategy for information provision which encompasses planned and spontaneous change.
5. It must reflect the importance of role legitimation and expectancies between the users, and provide information on which success in these areas can be achieved.

6.6 Summary

From this chapter we have learned that:

1. The value of information to a manager is determined by the schemas which he/she possesses which influence the relation and processing of information received by them.
2. The quality of information to users is determined by the principles of conciseness, accuracy, comprehensiveness and topicality according to the "quadruple quality trait" theory of John Nemec (1982).
3. Information which promotes success in terms of job performance approved by the culture of the organisation is perceived as most useful to managers since it ensures their survival in their organisation.
4. Information which encourages an awareness of the needs of the whole of the organisation and which enables job performance to be directed towards satisfying these needs is perceived as useful by managers.
5. Any model of information provision must reflect the interaction of the manager with the process of provision.

Chapter Seven

A Model For The Provision Of Information To Managers

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Chapter Seven

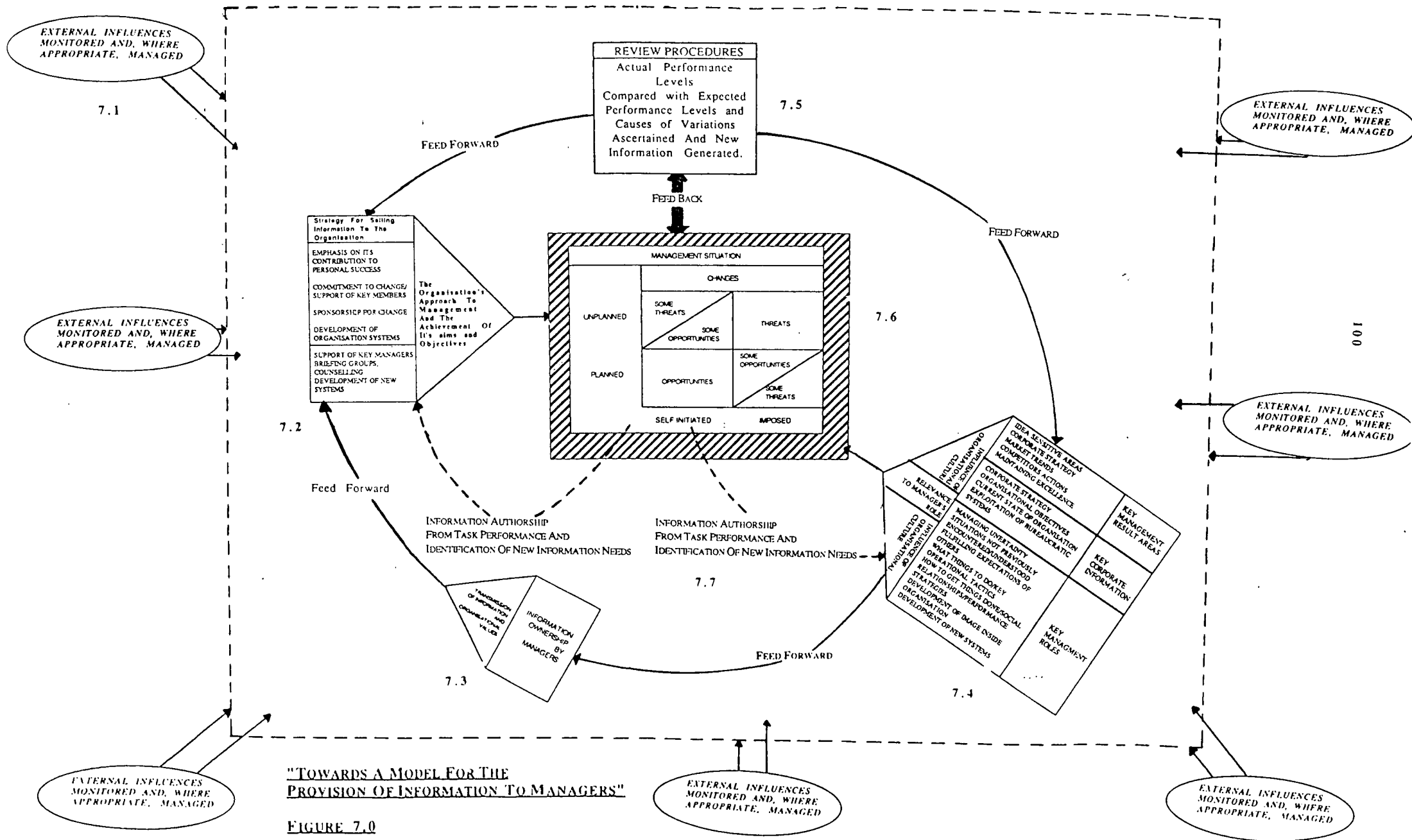
A Model For The Effective Provision Of Information To Managers

The reading, learning and thinking which has taken place in the course of the preparation of this thesis has had, as its central purpose, the aim of contributing to the construction of a model for the effective provision of information to managers.

This model is presented over-leaf (see figure 7.0). It is followed by a list of the key principles on which it is founded. These in turn, are supported by a justification of the reasons for their selection, and a consideration of the implications of so doing for the overall usefulness of the model.

To help the reader to trace specific instances earlier in this text where the key principles have been mentioned, the author has enumerated the point in the text and, in a footnote on the same page, has supplied one page number where it has previously been discussed. However, he wishes to emphasise that there will be other instances where the same principle will also be alluded to in the text of this thesis. It was felt by him that one page number identifying each principle for the text of this thesis ought to be supplied, to prove its existence, and in the name of scholarship.

Additionally, each of the sections in this chapter has been given a numerical identity e.g. 7.1, 7.2 etc. The digit 7 refers to the chapter number and the other to the specific area on the model to which it refers. As can be seen on the model over-leaf, each of its areas is enumerated in this way, in an anti-clockwise direction, so that the reader can refer to the model to identify an area then read the specific section in this chapter in which that area is discussed.



The 7 key principles on which the model presented in Figure 7.0 is based are enumerated and listed below, and then discussed in the remaining sections of this Chapter.

- 7.1 It must reflect the import of some external influences on the process of providing effective information to managers.
- 7.2 It must help organisations to succeed in developing a successful managerial approach to achieving their aims and objectives.
- 7.3 It must promote ownership of information amongst potential users by encouraging their involvement in the information provision process.
- 7.4 It must acknowledge the critical impact which organisational culture has on key operational and managerial processes, and over the information provision pertinent to them.
- 7.5 It needs to have a provision for the continuous review of information needs and the style of information provision needed to satisfy these.
- 7.6 It must be of real help to managers seeking to exert control in an uncertain managerial environment.
- 7.7 It must ensure that the quality of the information provided is as high as possible for the purposes of effective management, by encouraging information authorship from managers.

7.1 External Influences On The Process Of Providing Effective Information To Managers

The whole model can be seen in Figure 7.0 to "float" in its environment and as such is subject to influences from it, some of which may need to be managed actively and all of which need to be monitored for their potential to effect the well being of the organisation. This is enumerated in the top left hand corner of Figure 7.0 but these external influences ring the perimeter of the model, showing their ubiquitous influence on it. Schendel (1988) suggested



that the term environment be defined as any variables which influence the organisation over which it has no control. Such variables cannot be planned, only forecast on the basis of assumption and are therefore, at best, educated guesses. He suggested that these environmental variables could be classified into four types:

1. Economic ie the demand for the products or services of the company.
2. Technological ie determinants of manufacturing / distributive technology.
3. Political - Regulatory - Legislative ie statutory and bureaucratic changes.
4. Socio-Cultural - Demographic ie reflecting changes in population types and values.

Schendel (1988) makes the point that environmental change can obsolete entire organisational strategies, and erode competitive positions with great rapidity. The process of monitoring external variables and responding quickly to those which are liable to affect the welfare of the organisation is an extensive and demanding one, which lies at the heart of strategic management.

The model developed by the author acknowledges this by portraying the general environment in which the organisation operates as a dotted line into which significant external influences occasionally intrude. These are the ones which need to be managed and their effect is felt at all stages of the information provision process portrayed by it. The lines which do not intrude represent those developments which exist but which it is felt by management in the strategic area, do not significantly impinge upon the organisation's welfare.

7.2 The Organisation's Approach To Management And The Achievement Of Its Objectives

To be regarded as useful any model of information provision must give managers a greater chance of achieving success in their role.¹ This requires a clear statement of the organisations objectives, as well as the objectives of individual jobs as a preliminary to effective information provision to managers. It has been said that a major determinant of success in the managerial function lies in the extent to which an individual is able firstly to understand what key results he/she is expected to achieve, Osmolski (1979).² It has also been suggested that a major determinant of a managers success within an organisation, is his/her "fit" with the culture of that organisation.³ Acceptance as being "one of us" by more powerful managers in the culture is the sign that this "fit" has been achieved. This is in turn rewarded by access to that central core of information which is critical to the advancement of the hierarchy, as is stated by Wallach (1983).⁴

The model of information provision to be offered here must be preceded by managers having a clear indication of the objectives of their role, and also of the methods which the organisation regards as legitimate and desirable, in the achievement of those objectives.⁵ that is why this statement occupies the arrow head of element 7.2 of the model on page 100.

The model also seeks to make pragmatic contributions to the real world of management. Perhaps the foremost of these is to help managers to "sell" changes to those affected by them, by providing a strategic catalogue of actions to help them control the information provision process and achieve the highest degree of acceptance of it.⁶ The title "Strategy for Marketing Information to the Organisation" is placed in the top segment of the rectangular box of 7.2 because it introduces the strategy for "selling" the information proposed in the model.

1 page 47
 2 page 31
 3 page 60
 4 page 61
 5 page 74
 6 page 14

By encouraging a positive contribution to the information provision process from managers the model aims to make individual managers aware of the importance of their contribution in the effective management of change, and in the future welfare of their organisation.

The title "Emphasis on its Contribution to Personal Success" indicates that by making managers more aware that their personal success can be directly dependent upon the extent to which they help to communicate and determine the quality and quantity of information which they received, it is hoped that they will become more increasingly involved in the whole process of information provision. Unless there is individual participation in the information provision process, the quality of the information provided will be impaired.¹ This is designed to persuade people to enunciate their information needs.

The model places an emphasis on the needs of managers, as individuals, for information which they can see as important to their individual roles, and which will promote ownership of information by managers at a group level because of its relevance to their common purpose.² Additionally, there is also the concept of the dissemination of this information by these managers to others in the organisation which brings in the organisation dimension in to the provision process and requires a strategy to enable this to take place.³

The provision of information at these stages has to be brought to bear on the management situation because this is the area in which managers effect changes and cause results. The management situation must, therefore, be the focal point of the proposed model of information provision as Altman (1979) pointed out.⁴

The next stage, developing a commitment to change through the support of key members of staff, is also seen as a critical part of this strategy because support of others in an organisation is essential to the acceptance of any innovation.

1 page 56

2 page 72

3 page 33

4 page 89

Obtaining sponsorship for change again from other members of staff, irrespective of their level and area of operations is regarded as being essential because a sponsor for change will act as an agent for its dissemination.

All of this hinges upon the development of organisational systems which will enable change to be accommodated. This may be achieved through briefing groups, counselling or any organisational strategies designed to promote communication and positive interpersonal relationships.

The whole of these initiative adds up to the organisation's approach to the process of management, and to the achievement of its aims and objectives. In short, a declaration of its bias. This represents a further filtering mechanism which ensures, as far as possible a corporate initiative to the management situation which is one of the primary products of an effective strategy for information provision.

7.3 The Model As A Vehicle For Promoting Ownership Of Information Among Potential Users

This research has already pointed out, that information systems which are most frequently used are those over which the users themselves have the most influence.¹ This suggests that any model of information provision has to be designed round a socially interactive process, since this is the only way in which human involvement in the provision process to affect change can be generated and sustained. Hence the "Transmission of Information and Organisational Values" is placed in the arrowhead of this section of the model to show the essential role which communication plays in providing the content for the dissemination process of 7.2. It has already been argued in Chapter Four that human beings operate primarily on the basis of personal relationships and the model seeks to recognise this and offer the opportunity to develop these in order to achieve a deeper understanding of the information needs of individuals in situations of change, with a view to providing the type, and volume of information necessary for these to be affected as successfully as possible, that is, achieve the best fit.

¹ page 71

One of the key themes of the thesis has been the need for placing demands upon users to identify information needs by an acknowledgement of their key managerial tasks, and result-getting areas. The work of Thain (1978) identifies these key areas for incorporation into the model.¹ We return once again to the theme of creating the greatest degree of "fit" between provided information and utilised information by means of the processes of social interaction; and the recognition that this needs to take place on an organisational basis in order to achieve a corporate vision of the organisation's future as Chapter Three of this thesis suggests. The role of the model will be to help those for whom information is being provided, to see its value for them, and to offer them the opportunity to influence their working lives and their futures within their organisation.

By nominating the areas in which managers will achieve success via the results they obtain, the corporate information which they possess, and the managerial roles which they must adopt in order to fulfil their tasks, the model seeks to promote information ownership. These are the three boxes on the right of stage 7.4 of the model and represent the "what" of information ownership portrayed in the rectangle of 7.3. This ownership relies on enlightened self interest and it represents the point of synthesis of provided information by the managers themselves before they transmit it to those who fall within their areas of communication, and control. In this way the values of individual managers and those of the management group, are portrayed and the degree to which they subjugate themselves, and their personal ambitions, to the goals of the organisation is accommodated. The implication here is that the information owned by managers will be a selection of any of the previous areas mentioned, filtered through the cultural values, norms and expectations of their organisation and then regarded as worthy of transmission to others for use in the management situation. The key areas previously identified represent those which, in the opinion of the author of this thesis, offer the greatest possible chance of utilisation of provided information for managerial purposes.

¹ page 39

This model of information provision seeks to provide managers with information which will enable them to exert control, as far as possible, in the management situation with all its uncertainties. It tries to facilitate change in a constructive and beneficial way, and this leads us to the stage which represents the dissemination of this valued information into the organisation, and the challenge here is to ensure that it is employed by other members of the organisation as part of a corporate approach to the managerial challenges which the organisation faces.

7.4 The Influence Of Organisational Culture On Key Operational And Managerial Processes

We are led to the role of the culture of the organisation as a filter through which information must pass in order to be owned by managers in an organisation. The influence of the culture of the organisation is the process by which information comes to be owned ie it is the "how" of information ownership and exerts considerable influence on "Information Ownership by Managers", stage 7.3 of the model. More directly, it influences the way the management situation is managed. It is the basis, or, the preferred way of operating, of the organisation. The author believes that the relationship between the organisation and the individual is at the heart of the information provision. This belief is therefore reflected in the structure of the model.

Etzione (1975) stated that the nature and tenor of social exchanges within any organisation is determined by the type of information resource it offers. This in turn, he pointed out, determines the type of involvement individuals have within an organisation.

By encouraging maximum involvement in the information provision process the model seeks to promote "a voluntary asymmetry" as the work of Leitko and Peterson (1982) suggests as the most effective type of interaction for the management of change.¹ In this, information provision must be regarded as a key way in which any organisation

can support its managers and the promotion of an integrated approach from the top layer of management downwards and from the bottom upwards, will help to foster and develop the desired organisational culture which will fulfil needs on an organisational basis. Osmolski (1979) said, it is the duty of every company to make efforts to understand the complexity of its own organisation, i.e. its functions and processes for the establishment of its own objectives, and for the achievement of these. There is a need for every organisation to have a structure which is sensitive and responsive to its users needs, and this implies that there must be, in any model of information provision, a process of communication dedicated to identifying, understanding, checking and explaining the information needs of managers in order to provide, and be provided with, information of the highest quality. In this respect, the model of information provision can be seen as a means of generating trust between individuals in an organisation and for establishing criteria for judging individual performance which both the judge and judged perceive as relevant and fair.¹ This will be a major contribution to developing organisational cultures which are empathise with the needs of their members.

In fulfilling its aim to make changes effecting the organisation more manageable three key areas of management information have been identified. These have been based mainly upon the work of Marlow (1984) and Galbraith (1973), the former of whom ascertained certain areas in which business success results, and the latter of whom offered an approach to an effective strategy of information provision. These works provided the source of the three "key" areas on the right side of section 7.4 of the model. Each in turn is sub-divided into significant management tasks for which it is essential to have information in order to be successful.

Thus "Key Management Result Areas" can be seen to lie in identifying areas of the business which would respond to management initiatives as DeBono (1987) points out. In addition, achieving corporate strategy goals and aims represents a significant area for management results,

as does the response to market trends, competitors actions, and the maintenance of that part of the business which is regarded as being excellent. These key result areas represent the basis of managerial success.¹

The "Key Corporate Information" area is the framework, or context in which managerial decisions are taken. Therefore, it is suggested by the model that this information embrace corporate strategy, the objectives of the organisation, its current performance and the exploitation of bureaucratic systems to the advantage of the organisation. The three former areas demand that a corporate strategy exists together with organisational objectives, and that these are communicated, together with an openness about the current organisational performance a comment quoted from Monk and Landis (1986).² This measures the actual against the ideal. Also significant in this area is information about bureaucratic systems, for example grants which the company could legitimately claim to enable business initiatives to take place, would be in a place to achieve significant results, and to further the interests of their organisation by utilising external funding in order to implement its policies.

The "Key Management Roles" area consists of, management tasks and strategies which to achieve key management results. These have been listed and it can be seen that being able to manage uncertainty in the form of situations not previously encountered, or, if they have been, not previously understood, is regarded as a significant role of management, as Beer (1975) suggested. Fulfilling the expectations of others was inspired by the work of Machin (1980) who identified job related expectations and relationships expectations and his expectations approach to communication. Identifying, and then fulfilling the expectations of others represents a key managerial role and one which brings success, or censure. The rest of the managerial role area consists of identification of the key tasks to be performed by managers, and the most productive ways of achieving these. The model recognises that, from the research previously quoted in

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Chapter Two of this thesis, 'what to do' is vitally important, but so is how managers set about achieving their results, in terms of their promotion of productive interpersonal, and social relationships in the work situation. The development of an image inside the organisation is suggested as a key managerial role, because it has much to do with the self regard that people have, and the pride that they feel in their association with any particular organisation. This has much significance for the motivation of people to achieve results, and the examples of its development are legion, but perhaps it has reached its most refined form in organisation such as Marks and Spencer where self image is regarded as a critical factor in promoting customer care policies and in the approach which the organisation takes to its areas of business. The development of new systems is seen as a key managerial role because these are a significant part of the organisations response to the changes which it has recognised. They represent the organisations evolutionary process which as Salk (1985) says, are the means by which it ensures its survival.

It should also be noted that these three general areas, and the specific action points within them, represent key threads of managerial information which begin in the managerial situation where the information which travels along them is generated, hence the information authorship arrows in 7.7 of the model, emanating from the management situation and influencing the key areas of the manager's role.

The information from the key areas indicated in the model is inevitably filtered through the organisations cultural values. The significance of the influence of organisational culture on information provision has been previously discussed in this chapter, and in chapter three of this thesis.

The model also offers a pathway whereby managers can influence the development of the culture of their organisation and its information dissemination strategy via the review process on the feed-back and feed-forward loops as shown in figure 7.5 in the top centre of the model on page 100 of this chapter. The needs of managers as they

interact with the managerial situation, and the changes and challenges by which they are confronted, mentioned in Chapter Five of this thesis, mean that their demands and their methods of achieving task goals will undergo changes. This may also be communicated to the values, norms and overall organisational ideology through the key management result areas. The influence of external factors which generate changes in values and beliefs will also be incorporated into the culture of the organisation, and its evolutionary processes will reflect all of these.

7.5 The Need For Continuous Review Of Information Needs And The Provision Needed To Satisfy Them

Stage 7.5 of the model entitled "Review Procedures", is critical because unless there are key review procedures then control cannot be exercised in the short term, and trends and further developments cannot be anticipated in the long term.¹ There needs to be an awareness of the sources of change both inside and outside the organisation if the organisation is to effectively accommodate these into its strategic plan. The speed at which evolution is taking place within organisations means that there is a need for a continuous process of identification of information needs and the provision of information to satisfy these ever changing needs. This can only be achieved by a careful monitoring and review process which is a fundamental part of the model for information provision.

The arrows emanating from stage 7.5 on the model represent a multidimensional process of information exchange which serves two main purposes. The first is the monitoring of actual performance in the management situation over expected performance. In this respect feedback of the real results being obtained in this uncertain milieu is generated and monitored as the arrow leading to and from the "Review Procedures" and "Management Situation" boxes on the model shows. The feed-forward loop coming out of either side of stage 7.5, indicates the way in which this information is employed as an evolutionary mechanism for the organisation's development. It is the

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influence of on-going developments in the managerial situation, in terms of changes which take place and the opportunities and threats accompanying there. To survive, any organisation must respond to these and be prepared to reject some of its existing strategies, values and systems in order to accommodate new ones which are more in tune with present circumstances.

From the results obtained in the managerial area, information authorship occurs as information acquired during task performance emerges from the changes which managers seek to bring about hence the arrows indicating this influence on the manager's role, and upon the strategy for marketing information to the organisation. The results obtained in the managerial situation, and the information generated by them must be subjected to review procedures if the significance of them is to be refined, and the benefits are to be channelled back into the organisation for its continued growth.

As a result of the refined information following the reviews and the development of organisational systems the organisation will evolve ie to move on to a more sophisticated information plane. The analogy which occurs to the author of this thesis is that it will move as it were upwards on an extended spring, each coil representing a forward move higher up the spring's route of evolution.

In the feed back and feed-forward loops and review procedures of stage 7.5 the model recognises that information authorship is an essential precursor to information ownership, because the authorship of information arises from the management situation and from its usefulness there, or from its absence which stimulates a felt need. The model thus ensures that the information provided is determined by the needs of managers who seek to achieve results in an uncertain managerial situation. It is flexible to their needs, and to the changes in these needs, and capable of accommodating new information generated during task performance. It seeks to offer a carefully formulated strategy for effective communication based on the dissemination of new information derived from task performance and from the communication of information needs of, new, or already recognised, arising from the management situation.

7.6 The Model As An Aid To Managers Seeking To Exert Control In An Uncertain Managerial Environment

To be effective, the model must provide some means of helping managers to manage new situations of change, where provision of information is critical to successful implementation of desired objectives, and where current organisational information provision is inadequate for present and future purposes.¹ The model's main purposes are: to help managers manage that which they do not fully understand, essentially, the information needs of all those individuals affected by change which is in itself unprecedented; and the development of a complimentary outlook among people in an organisation as a means of facilitating and managing changes. This is why stage 7.6 is in the centre of the model, because it is the consumer of and the inspiration for the information which the organisation provides for its managerial purposes.

The model needed to address the actions necessary in order to create a corporate climate for change, a corporate commitment to change, and the provision for short and long term evaluation of the changes which are taking place, in order to facilitate control. It must emanate from a dynamic inter-relationship of people, systems and control processes as constants in the nebulous situation of modern management.² If changes are to be affected then they must, in the first instance, be accepted. In order to achieve this state they must therefore be understood and therefore the process hinges upon an effective strategy for introducing desired changes into an organisation in a way which is most likely to achieve their acceptance by the greatest number of people within that organisation.³

The manifestation of the information provided for management purposes will come through the changes which occur in the management situation.⁴

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The matrix which forms the central focus of the "Management Situation", stage 7.6 of the model, suggests that in the dimensions of planned and unplanned change, and change which is self initiated as opposed to imposed, there exists two possible perspectives; one is that changes which occur in the management situation present opportunities for personal and organisational growth and development, the other, that these represent threats in both of these areas. The model recognises this, in its inner box entitled "Changes" which is divided into a quadrant where 'unplanned' and 'planned', changes are represented on the vertical axis, and 'self initiated' and 'imposed' changes on the horizontal. The results of these are given in the "opportunities/threats" quadrants. It must be pointed out that whether changes in this situation are perceived as threats or opportunities, or a mixture of the two may depend upon the quality of the information provided about the key result areas, corporate information, expectations and management roles and the strategy with which this information is actually brought to the managerial situation. The author of this thesis suggests that it is the information provision processes, and the way in which information is marketed within the organisation which primarily colours the perspectives of those in the organisation about management initiatives and whether the changes which these inevitably bring represent opportunities or threats.

A management situation brings together the two elements of information content and the strategy for its optimum utilisation and from the matrix the suggestion that planned and self initiated changes bring with them a perspective of opportunity is a deliberate one, because when people within an organisation are involved in planned self initiated change they are a part of the evolutionary process and therefore internalise and own the planning and the implementation of that planning, as well as the eventual results obtained. Conversely, change which is unplanned and imposed carries with it the maximum threats to people within the organisation, because whenever change is imposed the people upon whom it is imposed have not been involved in the planning process and therefore quite often feel powerless to influence its inception and its outcomes. The matrix goes

beyond this stage in suggesting that the worst type of change is imposed and unplanned, in short a panic response to developments within the management situation. The author believes this to be axiomatic.

Two interim stages in the matrix are also suggested the first of these is that where change is being planned and imposed it may be regarded as a mixture of opportunities and threats. If the change is being planned elsewhere and imposed, then people in the organisation can only exploit its end product and the degree to which they are able to do this will determine whether it is perceived by them as being an opportunity or a threat. The second is self initiated, unplanned change. This is an hedonistic approach where changes which may well benefit the initiator may have unplanned consequences which may promote opportunities or imply threats. The management situation is one in which some activities which are undertaken produce results in the form of changes. These changes may be controlled to some extent through the information provision process, and the strategy which is used to disseminate the information provided throughout the organisation in order to carry its members into a situation in which they can align themselves with the changes occurring, to promote their own aims and goals along with those of the organisation. Thus, the proposed model answers the challenge of providing a strategy for tackling changes in the management situation.¹

The area of 7.6 which is cross hatched represents the routine area of managerial activity which centres on the maintenance of established systems.

The model also recognises that this particular stage, as well as the entire process of information provision, is liable to influence by external forces. These have already been discussed earlier in this chapter, but their importance is such that they deserve further mention here because they represent the unplannable, unforeseen imposed changes which occur which again may be perceived as

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threats or opportunities by people within an organisation depending upon, in the opinion of Galbraith (1973) the amount of information they have been provided with in order to manage these changes, as opposed to that which they have to acquire during the actual process of management.

7.7 The Model As A Means Of Ensuring The Highest Possible Quality Of Information By Encouraging Information Authorship From Managers

The proposed strategy is one of marketing information to managers by ensuring that the quality of the provided information is monitored by their needs, and maintained by their requests. Stage 7.7 of the model is a plan of action which represents lines of thought and areas of policy and decision-making which must be taken before action is initiated. It provides course of thought, planning and preparation which needs to be undergone if change is to be implemented with the greatest possible level of acceptance. To be effective, the information provided must be used by managers and must be perceived by them as a means of helping them to obtain better quality results. By giving an enhanced possibility of success, the quality control of information can be invoked, and maintained. To achieve this the value of provided information must be publicised, and perceived, in order to attract and maintain its user base, as discussed in Chapter Two. At its best this process will occur as a result of task performance, which will aid the identification of new information needs and the continuing level of demand for existing provided information. Because it emanates from the managerial situation it will ensure both its relevancy, and the managerial situation as rightly being the central focus of the whole model.

After having devised this model author sought to ascertain whether the principles of the model presented in this chapter were perceived by managers as being fundamental to their needs with regard to provided information. A questionnaire was therefore devised and administered to groups of managers. The questionnaire and its findings are the subject of the next chapter of this thesis.

7.8 Summary

The model for the provision of information to managers proposed in this chapter is founded upon 7 lay principles:

1. The importance of external influences on the process of providing effective information to managers.
2. The need to help organisations to develop a managerial approach which will help them to succeed in achieving their managerial aims and objectives.
3. Its ability to promote information ownership among potential users.
4. An acknowledgement of the influence of organisational culture on key operational and managerial processes.
5. The need for a continuous review of information needs.
6. The provision of help to managers seeking to exert control in an uncertain environment.
7. The provision of high quality information for managers.

Chapter Eight

A Field Study Into The Provision
Of Information To Managers

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Chapter Eight

8.1 The Purposes And Methodology Of The Field Study

There were two distinct purposes for the field study:

- a) to check on the elements of the model to justify their inclusion and relationship with one another in the dynamic form presented in chapter seven.
- b) to advance the personal knowledge of the reader about the information that managers need by an empirical survey and to set this against the learning which has taken place during the course of this thesis and formed the basis of the theoretical model presented in chapter seven.

It was decided to conduct the survey via a questionnaire because this offered the opportunity to incorporate the views of a wider spread of managers than would ever have been possible with an interview approach. It also offered scope for a comparison of a non statistical nature between the cultures of the three groups chosen for the study. The questionnaire represented the first step in turning the theoretical model into operational usefulness because of the fundamental question posed by it "Do Managers Get The Information They Need?". In order to answer this question the questionnaire became in effect an information provision audit. Finally, it was decided to construct a questionnaire in order to advance the personal learning of the author. Although he was familiar with conducting interviews in order to determine needs, he had never before designed a questionnaire and the opportunity of doing so represented a step forward in his personal development.

The questionnaire was divided into four sections as follows:

1. The Perception of Managers About The Quality Of The Information With Which They Are Provided

The questionnaire sought the views of managers on the usefulness of the information with which they were currently provided by asking them whether it met their needs; and whether it was perceived as being helpful to them in explaining their managerial tasks, and the expectations which others have of them in the performance of their role. It concerned itself with the "What" of working in the sense of "What do I do?" and also the "How" of working, in the sense of "How do I proceed in order to achieve my working objectives and foster good working relationships with colleagues?" This was because during the course of this thesis, the ways in which managers work to achieve their goals has been recognised as an important determinant of whether the goals themselves are achieved at all.¹

2. The Identification Of Discrepancies, If Any, Between Information, Actually Provided and Information Desired By Managers

The purpose of this section of the questionnaire was to determine the degree of perceived dissatisfaction or satisfaction which managers hold at present about the information provided for them. This was described in terms of the usefulness of provided information for them, and also its relevance for their needs. Implicit in this section was an attempt to discover whether managers in the survey wanted more or less authorship of the information they use for managerial purposes. To establish the relevancy of provided information, the questionnaire sought to determine how often information needs are reviewed, and the persons with whom these reviews were most and least frequently conducted, review being regarded as one of the primary ways in which the relevancy and usefulness of information is maintained, as has been explained in Chapter Four.

3. The Influence Of Organisational Culture And Values On Information Provision

This section in the questionnaire represented a study of the variables of change, organisational culture and managerial role, and the influence which an individual manager feels he/she has over such changes. Organisational culture, change and managerial role are prominent features of the model, figure 7.0 presented on page 100. The types and sources of information used by managers, and the relative value placed upon information which attempts to get things done as opposed to that which is involved with social relations was examined. The relative value of information provided by the organisation over that provided by ones self, was included as an indicator of the extent to which trust in the information being provided had been developed; it was hoped that this might give some indication of the extent to which managers provide their own information rather than rely upon information provided by someone else for their decision-making purposes.

4. The Barriers To Desired Information Provision

This section sought to identify managers' perceptions of the problems which prevent them from being provided with the information they need. Parameters such as the limits of their role, the accessibility of information, their relationships with others, and the pressure of work to achieve results were offered, although an open question, to encourage managers to name barriers not in the provided list but relevant to them was also included. This was an attempt to find out which were the most frequently perceived barriers to effective information provision within the organisational groups surveyed. This represented an evaluation of the "Review Procedures" element of the model on page 100 and the importance of the feed-back and feedforward loops in it to the evolution and hence the survival of the organisation.

A copy of the questionnaire can be found in Appendix 'A' on page 155.

The questions in it were of mixed type. Those with a 9 - point scale for responses were designed to test the function of degree to which any respondent was inclined to respond to the question posed. The choice of a 9 - point scale was to allow maximum discrimination between the absolutes at either end of the spectrum because it was felt by the author that it would be most unlikely for respondents to select either of the two absolutes 0 and 8 on many occasions. The open questions ie 13,19,20, and 24 were included in order to allow the personal preferences and opinions of each respondent the opportunity of expression. Those questions offering a choice of alternatives ie 15,16,23 and 24 were included to determine the opinions of the respondents when faced with a choice restricted to sensible proportions and to areas directly relevant to the central purpose of the questionnaire.

In order to make the questionnaire as clear, neutral and precise as possible it was revised 6 times. The format and value of each question was closely scrutinised and its contribution to the overall purpose of the survey assessed. The effect of this process was to reduce the questionnaire from over 30 questions in its original form to 24 in its final draft, as well as to determine the layout of the questions and such matters as presentation and type face.

The final draft questionnaire was pilot-tested on 5 managers, and from their responses alterations were made to the rubric at the beginning of the questionnaire which led to the inclusion of two actual examples of the way to fill in the questionnaire quickly and accurately, rather than a detailed verbal explanation of how this ought to be done as was included in the first draft. Alterations to question 9 and 15 were also made in order to make their purpose clear and to reduce their length.

The construction and design of the questionnaire was an academic exercise and it contributed a great deal to the author's knowledge of the key themes of the thesis, to the sections of the model on page 100, and the dynamic inter-relationships of its various parts.

The questionnaire was distributed to three managerial groups:

- (i) A group of 25 managers all of whom work for a local building society and for that reason will be referred to as the "B.Soc." group in the discussion and analysis of the results of the survey which follows;
- (ii) A group of 25 managers from different organisations with different jobs which will subsequently be referred to as the "Multi.F." group (ie Multi-Functional group);
- (iii) A group of 25 managers from different organisation but with a common job, in this case that of Personnel Manager, which will in future be referred to as the "Pers." group (ie Personnel group).

These groups were chosen because they enabled all of the key principles on which the model is founded to be tested on managers in the widest possible range of managerial situations both to ascertain the importance these managers placed on them, and to enable an evaluation of their usefulness, and thereby the usefulness of the model on page 100, to managers to be conducted.

The distribution of the questionnaires to the groups in the study and the number returned from each was as follows:

<u>Group</u>	<u>Number Distributed</u>	<u>Number Returned</u>	<u>Percentage Response</u>
B.Soc.	25	17	68
Multi.F.	25	25	100
Per.	25	25	100

The results and an analysis of their significance follows. Blank spaces in the grids indicate a nil response to the pertinent point on the response scale. On occasions where the scores given do not add up to the total number of respondents for a particular group, this is because on several questionnaires some questions were not answered.

Where the responses from all three groups were virtually identical the aggregate response from all 67 respondents will be given in this Chapter.

Where the responses from one or more groups were different from the aggregate response, the responses for all groups will be given as well as the aggregate response.

8.2 The Perceptions Of Managers About The Quality Of Information With Which They Are Provided for Managerial Purposes

Q1 "To what extent does the information you receive meet your needs?"

	<u>None</u>								<u>All</u>
	0	1	2	3	4	5	6	7	8
B.Soc.		1		1	1	7	5	1	1
Multi.F			3	4	4	6	7	1	
Pers.		1	1	4	2	5	8	3	1
Total		2	4	9	7	18	20	5	2

Responses here indicate that managers in all three groups are largely satisfied with the information they receive for managerial purposes. This level of satisfaction varies as, can be seen above, only slightly among the three groups, with the B.Soc. group's maximum score of 7 coming one point on the response scale below that of the other two groups, at 5 which indicates that they are not having their information needs met quite as well as the other two groups in the survey. Ostensibly the managers in the survey were well satisfied that the information they receive meets their needs. However, from their responses to questions about other's expectations of them, (question 7 and question 9) which asked how informed they were about the information available to them in their organisation there are areas where a lack of information is acknowledged. From this the author concludes that the managers in the survey may feel that the information they are receiving meets the needs of which they are aware, but that, when asked about such needs as are covered by question 9, shortcomings in information provision are revealed about which they had been unaware. By bringing such needs to their attention, the questionnaire had been a learning experience for them,

making them aware of needs which they have but had not recognised. The author regards this as an important contribution to his own learning, having realised that managers may not be fully aware of their own needs until these are, to some extent, identified for them, the whole process of interaction and communication to identify that information which it most useful to provide for managers is recognised as valuable. Additionally, the significance of section 7.7 on the model presented on page 100 is supported by this result. Managers need to be involved in the process of information authorship if their needs for information are to be provided for by their organisations. They need to be surveyed in order to help them to clarify and identify their needs as they emerge from the changing managerial situation in which they find themselves daily. This indicates to the author the value of the information audit conducted by his questionnaire for organisations wishing to ensure that the expense in time, energy and money necessary for information provision, is justified by its value to and employment by the managers for whom it is intended.

Q2 "How much of the information with which you are provided is helpful to you as a manager?"

	<u>None</u>								<u>All</u>
	0	1	2	3	4	5	6	7	8
Total		1	3	8	13	10	23	7	2

The peak of 23 responses shown here at point 6 of the scale contributes to the view of the author expressed in his analysis of question 1 that managers find most of the information with which they are provided helpful, but by no means all. This raises the question of what information they need but with which they are not currently being provided. With the help of a tool like this questionnaire to audit their information needs and to begin a dialogue with them about these, areas of information deficit can be identified. For example, question 13 revealed several areas where managers indicated a need to receive information which was currently not

being met by their organisations' information provision, and, as the model on page 100 shows in sections 7.4 and 7.6, information such as this can have a significant bearing upon the way in which a manager sees his/her role, and the way in which he/she approaches the challenges offered by the managerial situation.

Q3 "How well informed are you about your managerial tasks in your organisation?"

	<u>None</u>								<u>All</u>
	0	1	2	3	4	5	6	7	8
B.Soc				2	1	2	5	6	1
Multi.F	1		1	4	2	4	6	4	3
Pers.		1	1	5	2	4	7	2	3
Total	1	1	2	11	5	10	18	12	7

Again, total responses from the groups peaked at point 6 on the response scale. The B.Soc. group felt very well informed, peaking at point 7 on the scale, and showing 5 responses at the previous point.

The Pers. group had a much sharper peak at point 6 followed by only 2 responses at point 7, than either the B.Soc. or Multi.F. groups. All groups felt quite well informed; however, in view of their responses to question 16 about the frequency with which change is perceived to affect them by managers in the survey, it can be seen that they believe managerial tasks and roles, (section 7.4 on the model on page 100), change on a daily basis. The author of this thesis now regards information about tasks and role as essential, especially when these are liable to change rapidly and frequently. The section 7.4 on the model deals with a fundamental preoccupation of all managers ie information about their key result areas, and, through the "Influence of Organisational Culture" arrow head, how to achieve these. Informing managers about changes in their tasks and role is an act of

information provision which must keep pace with changes in the management situation, and this can only be done by assessing their importance through the "Review Procedures", section 7.5, with its feed back and feed forward element of the model on page 100. Responses to question 15 of this questionnaire suggest that managers in the survey only have their information needs reviewed on an *ad hoc* basis rather than as a regular and essential part of the information provision process.

Q4 "How well informed are you about your reporting relationships within your organisation?"

	<u>Not</u>									<u>Fully</u>
	0	1	2	3	4	5	6	7	8	
B.Soc				1	3	1	3	6	3	
Multi.F			1		2	2	6	7	7	
Pers.	1		2		3	4	2	4	9	
Total	1		3	1	8	7	11	17	19	

An interesting feature which emerged was that on this question there were more responses at the figure eight than for any previous question which suggested that approximately 28% of the managers in the survey thought they were fully informed about reporting relationships within their organisation. This suggests that managers in all three groups felt that they were extremely well informed about their reporting relationships.

However, this was felt by far fewer of the managers in the B.Soc. group as the above table shows. This may be because it is currently undergoing traumatic change caused by the need to react to the challenges of the Financial Services Act, and because of the influences of the management style of the Chief Executive recently

appointed. The B.Soc. group indicated here an absence of information in an area identified in element 7.4 of the model on page 100 in the specific areas to the right of that segment entitled "Key Management Roles". They appear to be less than fully clear about their reporting relationships.

Q5 "How well informed are you about the incentives and rewards which your organisation can offer you?"

	<u>Not</u>									<u>Fully</u>	
	0	1	2	3	4	5	6	7	8		
B.Soc			2	1	2	1	5	5	1		
Multi.F		1	3		2	4	2	5	8		
Pers.		1	2	1	1	2	5	2	11		
Total		2	7	2	5	7	12	12	20		

Once again the B.Soc. group scored much lower at the top end of the scale than the other two groups in the survey, only recording 1 response at point 8 on the scale. It is known to the author that incentives and rewards do exist, there is, for example, an annual bonus, and this and other rewards have been introduced quite recently. However, it may be that information about these has not been adequately disseminated throughout the organisation in view of the spread of responses to this question. For the author this underlines the value of a strategy for disseminating and marketing information to the organisation by the organisation such as is suggested in element 7.2 of the model on page 100. Of further interest to the author is the response of the B.Soc. group to question 24 of the survey where they felt that information availability was the primary barrier to their receiving the information they would like. On this occasion it is known that the information was available about at least one incentive, and the issue here is whether or not it was actually

getting through to the managers. Less surprising is the highest score by the Pers. group for this question, since most schemes of this nature emanate from and are controlled by the personnel function of an organisation. By scoring only one response at point 8 on the response scale the B.Soc. group shows itself to be less well informed in this area than either of the other two groups in the survey.

Q6 "How well informed are you about the current performance of your organisation?"

	<u>Not</u>								<u>Fully</u>
	0	1	2	3	4	5	6	7	8
Total	3	2	4	2	3	9	12	23	9

All groups scored the highest number of responses at point 7 of the scale suggesting that they felt extremely well informed about the current performance of their organisation. This is interesting in view of the subsequent responses to question 13 where information about the performance of other parts of the organisation and its status in the market place was highly prized and requested. The value of this corporate perspective on organisational performance was clearly demonstrated by the responses to question 22. From this it can be concluded that the managers in the study felt well informed about certain areas of organisational performance but not those which offer a corporate perspective. Those responsible may not be disseminating sufficient information about such areas as external influences on the organisation which need to be managed to its advantage ie section 7.1 on the model on page 100, and about matters of corporate significance and image.

Q7 "How well informed are you about what others expect of you in your managerial role?"

	<u>Not</u>								<u>Fully</u>
	0	1	2	3	4	5	6	7	8
B.Soc			3		4	1	4	3	2
Multi.F	1		1	4	3	5	5	6	
Pers.		2	4	2		6	5	5	1
Total	1	2	8	6	7	12	14	14	3

The spread of the scores here suggests wide variations in the extent to which the managers in the survey felt themselves to be informed about the expectations which others have of them in their managerial role. The underlying trend here is one of uncertainty which indicates to the author both the need to formalise the importance of this as indicated in element 7.4 of the model where "Fulfilling the Expectation of Others" appears as a sub section of the "Key Management Roles" section, and the fact that for the managers in the sample this is at present done on an *ad hoc* basis. This may be one of the key missing corporate information elements so highly valued in question 22.

The B.Soc. group was not as well informed about what others expect of them in their managerial role as the other two groups in the survey. Their responses were spread throughout the scale while the other groups had a large number of responses at point 7. Again the traumatic change taking place within the organisation and the financial marketplace generally may be responsible for this.

Q8 "How much of the information you receive helps you to exercise managerial control in uncertain situations?"

	<u>None</u>								<u>All</u>
	0	1	2	3	4	5	6	7	8
B.Soc		1		2	3	3	6	1	1
Multi.F		1	3	2	9	5	4	1	
Pers.			2	6	5	4	4	4	
Total		2	5	10	17	12	14	6	1

The B.Soc. group felt better provided with information which helped them to exercise managerial control in uncertain situations, with peak at response point 6 there is still room for improvement, but the B.Soc. group was far more certain in this respect than the other two groups in the survey. This is an interesting reversal of the trend of confusion and uncertainty established by the B.Soc. group in previous questions and it suggests that the managers feel a lack of personal support from their managers, while at the same time feeling well supported by the systems for information provision.

The total for all groups peak at point 4 of the scale which suggests only about half of the information managers in the survey receive helps them to manage in uncertain situations. In such circumstance routine information would be of little use because what is being faced is not something with which currently established systems can cope. It is outside established practice and may emanate from changes occurring in the management situation, (element 7.6 of the model on page 100) or, from external influences which need to be managed, (element 7.1), and for which there are no established rules or practices. The model seeks to remedy this by the review of changes occurring in the "Management Situation" via the feed back arrow leading to and from elements 7.5 and 7.6. This information is then used as an

evolutionary mechanism via the feed forward loops which modify the information in elements 7.2 and 7.4, the "Organisations Approach To Management and the Achievement of its Aims and Objectives" and the "Relevance to the Managers Role," respectively. In this way it ensures that provided information is relevant to current challenges and changes, and that the way in which it is provided is modified to ensure maximum systemic support for managers in the management situation to enhance their chances of successfully achieving the aims and objectives of the organisation. The situation revealed in the table above suggests that, at present, those in the survey receive only about half of the information they need to help them in their most difficult situations which implies that their organisations are spending time, money and effort providing them with information, half of which they do not need, or, that they are not providing half of the information they do need because, as the model shows in elements 7.3 and 7.7 there is a need for a process of interactive communication which will allow the influence of the managers themselves to be present at the information authorship stage in order to promote the ownership of the information to be disseminated in element 7.2. The questions of who specifies information needs and who generates information for managers in the survey will be dealt with in more detail at the beginning of the next section of this questionnaire.

Q9 "How informed are you about the information available in your organisation?"

	<u>Not</u>								<u>Fully</u>
	0	1	2	3	4	5	6	7	8
Total	2	3	4	8	12	18	14	4	2

Question nine revealed significant change in the pattern of responses; in all groups the tendency was towards some dissatisfaction in their response to the question about how well they were informed about information available in their organisations. From this the author has learned that the managers in this survey perceive this to be an

area of weakness in the provision of information to them, and that organisations do not inform them very well of the information that is available to them. This response was also given to question twenty four, where twenty three of the sixty seven managers in the entire sample indicated that not being told about information available in the organisation was a barrier preventing them receiving information they would like for managerial purposes. It also justifies the section 7.2 in the model on page 100 which offers a marketing strategy for information for the organisation by the organisation. Unless provided information is effectively marketed, packaged and "sold" by the organisation to its managers then it will not be effectively employed by them simply because they will be unaware of its existence. Having information is not enough, as has been pointed out earlier in this thesis, managers need to know that it is there so that they can utilise it in their managerial situation to help the organisation achieve its aims and objectives.

Q10 "To what extent are you provided with the information you need to help you to develop good working relationships with colleagues?"

	<u>Not</u>								<u>Fully</u>
	0	1	2	3	4	5	6	7	8
Total		2	3	14	11	11	18	6	2

This question set out to test responses to a query about how managers in the survey perform their managerial tasks. How we achieve our objectives is regarded as just as important as what we achieve by the literature on management development and efficiency. The response above tells the author that this is an aspect of management information provision that is by no means fully satisfied. The spread of responses indicates the differences in deficit of this provision among the managers in the survey. Throughout much of past and current literature on the subject of management the author has noted

the theme of valuing people ie "it is people who get things done not organisations," is a theme dealt with earlier in this thesis. This being the case, it seems, from the above response, that there is some deficiency in the information provided to help managers to work with people to achieve their results. This is also the subject of question 21 in this questionnaire. It is also a prominent element ,7.2, in the model on page 100 since the author recognises that unless managers are provided with information to help them work with others in the organisation to achieve results having useful information is only part of the process of success. The need for management skills and development programmes is obvious. Developing and maintaining good working relationships is much too important in these times of change to be left to chance.

The conclusions that can be reached from the responses to the first section of the questionnaire are that the managers in the sample are largely satisfied with the information that they receive about their managerial needs and that they regard most of the information they receive as helpful. They feel particularly well informed about reporting relationships and incentives and rewards in their organisations; they know a great deal about the current performance of their organisation but are not quite so confident that they understand what others expect of them in their managerial roles. The scores for the question which asked them how much information they received helped them exercise managerial control in uncertain situations showed a much lower rate of satisfaction, and the spread of responses for question nine showed a far lower degree of satisfaction about the information provided for them about the information available in their organisations. Question ten revealed an interesting discrepancy between the responses of the three groups in the sample as has already been indicated, suggesting that the B.Soc and Pers. groups in the study feel better informed about how to develop good working relationships with colleagues than those from the Multi.F. group.

8.3 An Identification Of The Discrepancies Between Information Actually Provided To Managers For Managerial Purposes, And That Desired By Them

Q11 "Who specifies your information needs?"

	<u>Others</u>		<u>Actual</u>						<u>Self</u>
	0	1	2	3	4	5	6	7	8
B.Soc	1		2	4	4	2	2	1	1
Multi.F		2	2	6	5	3	3	4	
Pers.	1	1	1	5	4	3	3	2	5
Total	2	3	5	15	13	8	8	7	6

	<u>Others</u>		<u>Desired</u>						<u>Self</u>
	0	1	2	3	4	5	6	7	8
B.Soc					3	2	6	1	5
Multi.F					4	3	10	4	4
Pers.				1	3	2	7	4	8
Total				1	10	7	23	9	17

The above responses show that in actual fact the tendency is towards others specifying the information needs of the managers in the survey. However, the desire of these managers was obviously to have a greater influence over the specification of the information they need as the peak at point 6 on the "Desired" , scale shows. This is of great significance to the model offered on page 100 since the author believes this vindicates one of the basic premises on which it is founded, namely, that not only should managers participate in the authorship of the information they need for managerial purposes, but

that, given the opportunity, they wish to participate in this process. The indication here that this is the case gives strength to the argument that they ought to be given the opportunity by their organisations. A total of 17 responses at the "Self" and of the "Desired" skill is unequivocal.

Q12 "Who generates the information you need?"

	<u>Actual</u>								
	<u>Others</u>								<u>Self</u>
	0	1	2	3	4	5	6	7	8
B.Soc		1		2	9	2	3		
Multi.F		2	2	3	4	8	5	1	
Pers.	1	1	1	5	4	3	3	2	5
Total	1	4	3	10	17	13	11	3	5

	<u>Desired</u>								
	<u>Others</u>								<u>Self</u>
	0	1	2	3	4	5	6	7	8
B.Soc	1	2	2		5	2	5		
Multi.F		1	5	6	3	6	3	1	
Pers.				1	3	2	7	4	8
Total	1	3	7	7	11	10	15	5	8

The indication here is that in reality the information which the managers in the survey need is generated by an equal partnership of themselves and others. However, their desired state is for they themselves to generate more of the information they need than others. The Pers. group showed an especially strong desire to generate the information they need as well as to specify this information. Possibly, the nature of their specialised tasks in their

organisations makes them different from the other two groups of managers. This result is open to interpretation in a variety of ways. One such is that the peak score at point 4 on the, "Actual", scale shows that managers have to partially generate half of the information they need themselves, which could be construed as a failure on the part of those supplying information to managers to meet their needs, and relating to the, "Desired" , scale, that managers in the survey wished to have a greater influence over those who generate information for them in order to obtain more of the information which they need. Another interpretation is that the peak score on the "Actual" scale shows that managers have equal influence with others in generating the information they need but that the peak at point 6 of the "Desired" scale shows that they want more freedom to generate more of the information they need themselves ie greater autonomy in this respect. Responses to question 11 and 14 suggest to the author that the former interpretation most indicates the managers' position. The response to question 11 was decidedly that managers wished to specify their information needs themselves, and to question 14 that the managers in the survey rely equally on information supplied by the organisation and themselves for their success. In view of this it could be construed that managers recognise the value of provided information equally with that which they provide for themselves and that their desire is to specify this information to be generated. However, a further interpretation is that managers in the survey want to generate themselves more of the information they need. The author feels that this not a sensible interpretation because generating information requires time and effort which managers wish to spend using information to promote their success in their job. That they rely on the information provided for them in their organisation and themselves for this, suggests to him that the model on page 100 is a strategy to enable them organisations to provide more of the information managers desire and influence free from boredom to do this themselves. However, this represents a potential area for further investigation and clarification.

Q13 "Please specify the three types of information you would most like to receive in addition to what you receive at present?"

	1st Choice	2nd Choice	3rd Choice
B.Soc.	Product Performance	Performance of other branches/Customers & their needs	Current Organisational Performance
Multi.F	Additional expenditure/ forecasts/financial information	Performance Indicators	Future aims of the company
Pers.	Company trends/ policies/ developments/ accounts	Performance indicators	Performance of other parts of the organisation/ Needs of customers

This shows a strong need from all the groups in the survey for information about performance: eg on products, other parts of the organisation and about the performance of the organisation as a whole. Also prominent on the returns was information about individual performance. Information on performance was highly prized but not provided for managers in the survey. In order to do this information provision would need to take the form of feed forward, in the sense of setting objectives for future achievement and feed back in the sense of information about present performance in the managerial situation. both of these emanate from the process of review and can be seen as an integral part of the model on page 100. The model focuses upon element 7.6, the "Management Situation", as the source, through the "Review Procedures", 7.5, of information about actual levels of performance against expected performance levels ie information about current performance; while the feed forward loops from 7.5, going to 7.2 and 7.4 allow the influence of future goals and objectives to affect the process of information provision, 7.2 and the content of that process relevant to the role of the managers, 7.4. In these ways the model on page 100 can help

organisations to continually identify and cater for the changing information needs of their managers. The answers to question 7 suggested that a need to know about their performance was a preoccupation of the managers in the survey, and that this information was not provided with any consistency by their managers and so it must be a source of anxiety to work to expectations that are understood rather than explicit. Similarly responses to question 15 suggested no regular review of their information needs for many managers in the survey existed, and, in addition responses to question 23 revealed that the information needs of managers in the survey were, in many cases reviewed more frequently with colleagues than with bosses. Information about performance in operational and personal areas is extremely important to the managers in the survey.

Q14 "How much do you rely upon these two sources of information for your success in your job?"

	<u>Organisation</u>				Equal	<u>Self</u>			
	4	3	2	1	1	2	3	4	
B.Soc	1	1	2	1	9	1	1	1	
Multi.F		1	4	1	11		4	3	1
Pers.		1	1	2	12	1	4	3	1
Total	1	3	7	4	32	2	9	7	2

This question set out to establish where managers in the survey obtained that information on which they based their job success. The result is an equal emphasis placed by almost half of them on individual and organisation. Whether this can be interpreted in a positive or negative way is a topic already broached in the commentary on the response to question 12. What is indicated by the scores here is that of the responses outside the "Equally" box, 20 were towards the, "Self", end of the spectrum and 17 towards the, "Organisation", end. The Multi.F and Pers. groups both showed that

they relied far more on information they provide for themselves for their job success than that provided by the organisation, but for all groups the greatest response was at the, "Equal", point of the scale showing the importance of both parties in the provision process. The B.Soc. group tended towards information provided for them by their organisation which, the author feels, adds weight to his conclusion in his commentary to question 8 that these managers are well supported by the systems of the organisation, but not so well supported by their managers.

The managers in this survey tend to rely on the information they generate themselves for their success and in revealing this it could be said that this marks a failure of their organisation either to appreciate what "success" to these managers, as the answers to question 7 suggest, and to review with them the information necessary for their successful job performance, questions 15 and 23, the latter of which suggest that colleagues are as, or more, frequently the people with whom information needs are reviewed as bosses. Expectations are not uniformly well communicated, nor is there, in many cases, any regular system for reviewing information needs, according to the respondents in the survey. The model on page 100 in providing for regular review of the actual performance of managers against expected performance as an integral part of the provision process, element 7.5, seeks to remedy this situation.

Q15 "How frequently do you review you information needs?"

	Daily	Weekly	Monthly	Quarterly	Half Yearly	Yearly	As and When It seems Sensible
Total	8	14	9	7	1	1	28

↓

"How many months is it
since you last reviewed
your information needs?"

↓

1-6	26
6-12	
>12	

As was mentioned in the response to question 3 the *ad hoc* nature of review of information needs for the managers in the sample is revealed by the above table. A further point is that the B.Soc. group scored 11 responses in the total of 28 for the "As and When It Seems Sensible To Do So" box which suggest that they are especially affected by a lack of formal review of their information needs, and that they belong to an organisational culture which is biased towards prescribing information for its managers rather than listening to their needs in any structural format. Once again the value of element 7.5 in the model on page 100 is revealed because it is the determinant of managers information needs and the catalyst for the dialogue which determines the content of that information which is relevant to the managers role. It is the essential precursor to information ownership, (element 7.3) via authorship emanating from it and the managerial situation where new learning occurs continuously. The significance of the above response is emphasised by the response to question 16.

In conclusion, this section revealed a desire on the part of managers in the survey for consultation about the information they need for their managerial purposes. Also expressed was a desire for information, not received at present by those in the sample, about performance both in an individual sense and a work group basis. This desire was also apparent in question seven, where responses showed differing levels of information about expectations which others have of them in their managerial role. The author of this thesis is led to the conclusion that, for the majority of the 67 respondents, there has been a need for information both about the expectations which other managers have of them, and about current performance relative to these expectations. Obviously these will be subject to changes which affect managers in their work environment hence the need for continual update. There is an apparent link between this desire and the responses to question 15 which reveal that information needs are reviewed as and when it seems sensible to do so. It implies that no recognised timetable for this review exists, yet managers have indicated their need for information about performance, customer needs and the future aims of the company. The pace of change which they recognise as taking place on a daily or weekly basis in question 16 demands a regular review of performance and expectations on the part of managers and those managed, in the opinion of the author.

8.4 The Influence Of Organisational Culture and Values On Information Provision

Q16 "How frequently does change affect you?"

	Daily	Weekly	Monthly	Quarterly	Half Yearly	Yearly
Total	29	16	15	5	1	2

As can be seen, the majority of managers in the survey perceive change to affect them on a daily or weekly basis. This has significant implications for

the way in which they are provided with information for managerial purposes. The responses to question 15 and those to question 23 imply that there exist no consistent methods among managers in the survey for reviewing information needs, nor, in many cases do they review these with their bosses. How these managers manage must, it seems, be on the basis of assumption and received opinion of desired goals. This reinforces the view that there is a need for a model such as that is presented on page 100 because it allows managers the opportunity to interact in the process of providing for their information needs and provides a strategy to ensure that these are actually catered for. One of the points made in Chapter 1 was that to be practically useful any model of information provision to managers must operate in the real world.¹ This need has been confirmed by these responses and so established, to the satisfaction of the author, a role for the model in helping organisations not only to help ensure that managers get the information they need, but that they do so as quickly as possible. From the survey it appears that the speed of change far outstrips the pace at which information is provided to managers. The model offers a strategy for diminishing this delay and identifying the key areas of relevance to a managers role, (element 7.4 on the model on page 100) which ought to be focussed upon. It is a tool for the managers of managers to use to ensure the relevance, timeliness and cost effectiveness of the information provision mechanism of their organisation.

Q17 "To what extent do you feel that you influence changes in the culture of your organisation?"

	<u>Never</u>								<u>Totally</u>
	0	1	2	3	4	5	6	7	8
Total	8	9	13	14	6	6	8	3	

The tendency here is for managers in the survey to feel that they have little influence over changes in the culture of their organisations. 44 of the

respondents scored between points 0 and 3 on the response scale. This tells the author that firstly, there appears to be little consultation with these managers about how to improve the way they do things and secondly that there exists a need for managers to become authors of information which will affect what they do and equally importantly, how they do it. The culture of the organisation is critical to how it selects its information, and how it goes about its business. This has already been argued earlier in this thesis. What the above response indicates to the author is the need to encourage managers towards the view that they can influence changes in the culture of the organisation ie that group norms belong to the group and the members of it can change these. The model on page 100 provides a mechanism for bringing about this change and, as a result, for enabling an organisation to respond more rapidly to changes inside and outside of its business activities. Evolution is a survival mechanism and so the model gives to organisations a strategy for promoting their chances of not only surviving, but also of being successful in their business area.

Q18 "To what extent are you consulted about changes likely to affect your managerial role?"

	<u>Never</u>								<u>Always</u>
	0	1	2	3	4	5	6	7	8
B.Soc		1	3	4	3	2	1	1	2
Multi.F	1	1		5	3	4	5	3	3
Pers.	1	3	3	2	2	3	4	3	4
Total	2	5	6	11	8	9	10	7	9

The whole spread of responses above suggests to the author that there was a wide discrepancy in the extent to which managers in the survey perceived themselves to be consulted by changes likely to affect their managerial role. The Pers. group scored most highly on changes likely to affect them in their managerial role, lowest was the B.Soc.

group which was also least confident in its answers to the first section of the questionnaire. Lots of insecurity is apparent in this managerial group which is not surprising for an organisation in the throes of change since the Financial Services Act opened up the financial marketplace to competition. One deficiency in the question is that we do not establish what we mean by "consulted" ie do we mean a 'quick word', or, an in depth discussion; another is that it is not clear whether these changes are operational ie concerning systems or, personnel orientated. However, the spread of responses above, even with the reservations expressed, tells the author that consultation is conducted by the managers' managers more on whim than as a key managerial function in the management of change. If change affects those managing these then insecurity and stress can be anticipated. By consultation managers can both indicate their needs and express their feelings. The model on page 100 allows them to do this as element 7.5 shows, and through it influence both what information is provided to them, (element 7.4) and how, (element 7.2) the feed forward loops dynamically inter-relate these providing managers with the ownership of information, (element 7.3) which comes from authorship, (element 7.7). Unless consultation takes place, the author argues, managers will not get much of the information they need because, as was argued in chapter one, we can never anticipate fully the information needs of another, and, information ownership ie the utilisation of provided information for managerial purposes can only come through information authorship, which is an essential prerequisite to information ownership. The responses to question 23 show that, in the survey, colleagues were a more frequent source of information review than bosses. However, the power to invoke beneficial changes for the managers in the survey, must, it is assumed lie with the latter. For them the model on page 100 will be particularly beneficial.

Q19 "Please specify the three types and sources of information you use most frequently as a manager."

Types Of Information Used Most Frequently By Managers

	1st Choice	2nd Choice	3rd Choice
B.Soc.	Financial/company trends	Local Business Knowledge/Product Performance	Policy changes/trends/problems/Info which satisfies needs/Personal Performance
Multi.F	Financial/Statistical results	Departmental efficiency/Company briefing	Problem solving info/Trends/Staff performance
Pers.	Establishment control	Recruitment	Company events eg Communications/monitoring/occurrences

	1st Choice	2nd Choice	3rd Choice
B.Soc.	In house systems/computer/manual	Head Office	Self/Staff/Customers Personal Contacts
Multi.F	Other departments/Organisation's Systems	Self	Other Managers
Pers.	Self/Other managers Organisation's Systems	External eg Newspapers Journals/ Other agencies	Regulations/ Handbooks

Sources Of Information Used Most Frequently By Managers

For the B.Soc.and Multi.F. group's responses to this question it is interesting to note that the types of information they use most are related to performance while that of the Pers. group is related to control. From this the author concludes that, unsurprisingly, different types of managers have different information needs. However, this conclusion also has within it the learning point that there is a need for any system of information provision to recognise this, and the fact that, because of role, managers have different priorities which must be catered for. The practice of providing managers with information must be more sophisticated than giving all managers all the information available and leaving them to sort through it and extrapolate that which is significant to them. The author believes that he is stating an extreme position in the first part of the previous sentence but not in the last part. In organisations personally known to the author managers are left to make sense of provided information themselves and the effort involved is considerable. The process of consultation and dialogue which are subsumed in the model on page 100 seek to rectify this and allow priorities such are suggested by this result to emerge and be satisfied.

The table of sources of information has a significant point in that it illustrates the importance of "self" and "others" in the form of other managers and personal contacts. It is significant to the author because it indicates the sources of information which managers use other than those provided for by the existing systems of the organisation. The responses to this question show that for all groups in the survey 'self' and 'others' appear in their top three information sources. The value of these cannot be underestimated, therefore and the model of information provision on page 100 incorporates these into the whole process of information by providing an opportunity for the information divulged to find its way into the information provision process and be disseminated according to its value to managers. So the model unifies the types of information which are, "formal" ie of obvious operational value and, "informal, which may be regarded wrongly, from the result here, as less important to the way managers perform their job, into one integrated system of provision

which caters for priorities of managers about what to do and how to do it. It recognises the importance of information managers need to perform their tasks irrespective of its source.

Q20 "What are the major advantages of using information provided for you by your organisation as opposed to that which you provide yourself?"

	1st Advantage	2nd Advantage	3rd Advantage
B.Soc.	Greater experience of situation/Saves Time	Greater Accuracy/Reliability	Relevant/Gives security of company line
Multi.F	Broader Perspective	Saves Time/Reliable	Decisions less contraversial/Gives security of company line
Pers.	More likely to achieve objectives	Saves duplication of effort	Common to all Managers/Saves Time

These responses offer further justification for the existence of an integrated model of information provision such as is proposed on page 100. Managers in the survey valued that information which offered greater depth of experience, was reliable and helped them to achieve their objectives. They demonstrated a need to have information which gave them confidence and enhanced their chances of success. Questions 7, 8, 9 and 13 have all previously asked about various aspects of this confidence with regard to the type of information with which managers are provided. This question asks for the managers' perception of the advantages to them of using provided information and in so doing justifies to the satisfaction of the author the potential usefulness of the model on page 100 to an organisation. The managers in the survey have indicated to him areas of value to them which provided information possesses and also the reasons why managers

own information (see element 7.3 of the model). They value, and are likely to transmit information for all of the reasons given in the table above, providing, that it is relevant to their role (see element 7.4).

Q21 "Which of the two following aspects of your managerial role do you most value?"

	<u>Good Social Relationship</u>				<u>Good Task Performance</u>		
	4	3	2	Equally	2	3	4
B.Soc				4	4	5	4
Multi.F				9	8	5	3
Pers.	1			16	3	2	3
Total	1			29	15	12	10

The emphasis here is dramatically obvious. Managers in the survey want to be seen to be performing their tasks well. It is here that their success is judged, the responses above tell us. The lack of value placed on good social relationships is also instructive. In the opinion of the author, this reveals the strong presence of competition in organisations with the successful completion of tasks as the prize, and the relative absence of co operation as a means of achieving targets. This factor has already been discussed in Chapter 5 and, in spite of the research literature quoted, the reality revealed in the responses above is that people in organisations are relatively less important than good task performance. The author does not intend to be drawn into the argument which begins, "But it is the people who achieve the results..." what seems more constructive is to cite the model on page 100 as a means of valuing the people who achieve the results. It does so by recognising them as the "customers" of an organisations information system ie the central focus of information provision directed at satisfying their needs in order to help them achieve desired results. From the above response this is a necessary and useful

role, as along with consultation about information needs and sharing information gained from the feed back from the managerial tasks, (elements 7.5 and 7.6 in the model) is the importance of having that information incorporated into and shared among the tasks and individuals which make up an organisation.

Q22 "To what extent do you value information which helps you to develop a corporate perspective of your organisation?"

	0	1	2	3	4	5	6	7	8
Total				2	4	9	19	10	2

The value of information which helps managers in the survey to develop a corporate perspective is obvious from these results. That it is valued so highly, is a further factor which convinces the author of the validity of his argument in response to the results of the previous question. Unless managers are given information which helps them to develop and maintain a corporate identity then they will hedonistically pursue their own targets, and in doing so expend time and energy competing with others who are ostensibly part of the same organisation and allies in the same cause. The absence of corporate information and any strategy for recognising its desirability and worth, or for disseminating it within an organisation is a recipe for stories of internecine warfare between people and departments who are supposed to have common goals. The value of the model on page 100 in this respect is that it seeks to provide a comprehensive information provision system which is organisationally based, at the same time, it recognises that different managers will have different priorities and what they are doing will always be valuable to them, but it also allows the general circulation of information which is about how the organisation wants to work and the promotion of social relationships within it, see element 7.4 and that section of "Key Management Roles" which specifies areas of useful information to managers. The notion of competition where there should be cooperation in organisations is confirmed by the written comments of

those who responded to the "Others" section of question 24. In all of the organisations in the survey organisation "culture", "politics" the unwillingness of senior managers to make knowledge available, competition between divisions, and a lack of communication between their managers were cited as significant barriers to information the managers in the survey would like to have.

Q23 "Please specify the individuals with whom you review your information needs, and indicate the relative frequency with which you review your needs with them."

	Least Frequently	Frequently	Most Frequently
Boss	13	28	25
Colleagues	3	20	28
Information Manager	13	8	5
Others	17	22	2

In all cases the survey revealed that managers review their information needs frequently or most frequently with colleagues or their boss, but it is surprising to learn that of the two it is colleagues who are used most frequently to review information needs. This has implications for question 7 of the questionnaire where there was a spread of responses to the question about the degree to which managers perceive themselves as well informed about the expectations which others have of them in their managerial roles. In question 13 the anxiety which must be caused by managers not receiving types of information useful to them was discussed, and in questions 15 and 16 the rate of change affecting managers in the survey was shown to be far greater than the frequency with which they reviewed their information needs. Here we have a situation revealed where colleagues are consulted more frequently than bosses about information needs. This suggests to the author that those most

ideally placed in the formal hierarchy of the organisation to assist the effective job performance of managers are not, for whatever reasons reviewing or, being nominated as the one with whom information needs are reviewed. In any situation where there is change information needs will correspondingly change. The need to cater for such changes is essential for managerial effectiveness and efficiency and those responsible and accountable for this are the managers' managers. The model on page 100 will offer them a strategy for reviewing the needs of their managers by following the headings in element 7.4 in the three key areas of relevance to a managers role, and, it will allow them to provide, or ensure that the systems provide information which their managers will own, element 7.4 and disseminate through the strategy in element 7.2 to allow the organisation to meet the challenges of the managerial situation element 7.6 with more confidence and expectation of success. Of further interest is the fact that there were 22 responses in the "other" category. Unfortunately we do not know the identities of these others but it indicates that managers in the survey felt the need to review their information needs, and with people other than their bosses on a significant number of occasions.

The implication here is that if information needs are not frequently reviewed by their boss then the managers themselves will not only be unaware of his/her expectations of them, but also have to find the information to meet the expectation which they think their boss will have of them, by their own devices.

The most interesting conclusions to this section are the belief among many managers in the survey that they only have a minimal impact on changes in their organisations. Kilmann (1984) recognised this, and the findings of this small study support his conclusion. Coupled with it is the responses to question eighteen which shows disparity in the level of consultation about changes affecting them by managers in the survey. A conclusion that the more a manager is consulted about change affecting him/her, the greater the level of influence over that change they feel able to exercise seems inescapable. Additionally, this consultation will help managers to own the changes

affecting them and respond to their challenges in a more proactive way.

This section also shows an interesting pattern of the utilisation of provided information revealed by responses to question nineteen. From these it is apparent that the managers in the survey favour technological systems for providing information for control purposes eg financial performance or statistical results, but for identifying and exploiting business opportunities they rely for information on human sources eg customers, colleagues, newspapers and periodicals. Information which enables a manager to react to performance on the basis of results obtained is mainly drawn from technical information support systems, while proactive responses to the managerial situation are conducted on the basis of human interaction, either directly with other people, or through the medium of publication.

8.5 The Barriers To Desired Information Provision

Q24 "Which of the following factors do you perceive as barriers preventing you from receiving the information you would like to have for managerial purposes?"

	Limits of Authority	Cost	Availability	Confidentiality	Personality Clashes	Lack of Access	Unfamiliarity With Computers	Not Told About Information Available	Pressure To Achieve Results	Other Factors
B.Soc.	7	3	12	2	4	9	1	7	4	3
Multi.F	13	1	10	6	7	13	6	9	11	3
Pers.	12	3	8	4	3	6	3	7	8	1
Total	32	7	30	12	14	28	10	23	23	7

From these responses the influence of authority over information provision can, in the first instance be clearly seen, closely followed and possibly linked to the lack of availability of information to people because of their position in the organisational hierarchy. This question also revealed that a lack of easy access to information was perceived as a barrier for the employment of information by managers for managerial purposes. The most obvious conclusion here is that, it is not sufficient to have information, the access to information must be made as simple and as speedy as possible for it to be used. The number of responses which said that they were unaware about information available in their organisation suggests that the point made earlier in this thesis about the value of marketing information to the organisation is valid. To the author of this thesis, the twenty three responses which state that pressure to achieve results was perceived as a barrier to information provision shows the existence of a managerial practice which is based upon action rather than thought as is suggested by the response to questions 21 and 23. From this response he concludes that as long as results were obtained then the quality of these was a matter of chance. Whether or not managers choose to realise that to achieve the best possible results ready access to information is essential or not, results, it appears are regarded as highly important, and action to obtain results is likely to be implemented even when the information on which the actions are authorised is perceived as being inadequate.

Once again, the significant influence which manager's boss can have over the process of information provision is implied by the responses to question twenty four. If authority limits are a significant barrier to the managers in the sample, then the higher the authority sanctioning information regarded as necessary by the managers responsible for obtaining desired results, the greater the accessibility of that information. Here we come up against a most interesting barrier to information provision - that of the legitimization of status by access to information mentioned by Wallach (1983).¹ If the purpose of an organisation is to achieve stated goals then the provision of information to those who are responsible for this achievement is of

paramount importance. Restricting access to available information is a dysfunctional act from this viewpoint, but the managers in the survey recognised the barriers of authority and accessibility as major impediments to their receiving information they would like for managerial purposes. The author of this thesis concludes that while a penchant for secrecy may be a national trait, it is also one of the primary means by which rank is protected, a fact which has much to do with preserving social status, and little to do with the successful achievement of organisational goals, and which is an implicit barrier in the provision of information to managers. In the future the pressure and ubiquitousness of change may make such restrictions less of a barrier, but for the present the fact that the managers in this survey have recognised them as such, is an important factor in the effort to provide them with the information they need for their managerial purposes. The value of the model on page 100 is that it can offer a strategy to remove some of the most significant barriers mentioned here, but it does not address the problem of the attitude of those people with access to information have to the act of providing it to those for whom it is important for managerial purposes. It seems to the author that information guarded for the sake of restricting access to it is a manifestation of insecurity on the part of those who indulge in it. If the object of the organisation is to achieve success, then the information which will enable it to do so is an essential resource which should be freely available if for no other reason than the dire consequences of not doing so.

APPENDIX " A "

QUESTIONNAIRE

THE PROVISION OF INFORMATION TO YOU AS A MANAGER

This questionnaire has been designed for quick and easy completion.

The results will be incorporated into an M.A. thesis. If you would like to receive a summary of the results, please ask me when you return the questionnaire.

Please return the questionnaire to me in the accompanying prepaid addressed envelope if you are unable to hand it back to me personally.

Gordon A Cairns
9 Oliver Place
Merryoaks
Elvet Moor
Durham
DH1 3QS

DO MANAGERS GET THE INFORMATION THEY NEED?

This questionnaire has been designed to get an up-to-date picture of the extent to which managers are provided with information they need, and the organisational factors which influence the quality of the information received.

It is being distributed to the following types of managerial groups

- a) Complete managerial groups from a small number of organisations
- b) Managers from different organisations
- c) Managers with one factor other than their organisation in common, eg their jobs.

DO MANAGERS GET THE INFORMATION THEY NEED?

SECTION ONE

1. THE NAME OF YOUR ORGANISATION
2. YOUR JOB TITLE
3. YOUR DEPARTMENT
4. THE LENGTH OF TIME YOU HAVE HELD YOUR PRESENT JOB
..... YEARS MONTHS
5. IF FEWER THAN THREE YEARS, - WHAT WAS YOUR PREVIOUS JOB
TITLE
6. BRIEFLY, DESCRIBE WHAT YOU DO
.....
.....
.....
7. WHICH ARE YOUR FOREMOST IMPORTANT AREAS OF
RESPONSIBILITY?
 - a)
 - b)
 - c)
 - d)

DO MANAGERS GET THE INFORMATION THEY NEED?

When completing this questionnaire, please follow these guidelines:

- a) For questions offering a scale of possible responses, please circle the number on the scale which most nearly represents your view.

For example:

Q.1 How useful is the information with which you are provided for your managerial needs?

0	1	2	3	4	5	6	7	8
<i>None of the information is useful</i>								<i>All of the information is useful</i>

- b) In the case of questions which ask for your view of your ACTUAL position and your IDEAL position, please circle the numbers on both these scales which most nearly represent your view.

For example:

	Actual	Ideal
Q.28 To what extent are you consulted about changes likely to affect your department?	0 1 2 3 4 5 6 7 8 <i>Never</i> <i>Always</i>	0 1 2 3 4 5 6 7 8 <i>Never</i> <i>Always</i>

SECTION ONEDO MANAGERS GET THE INFORMATION THEY NEED?

Q.1 To what extent does the information you receive meet your needs?

0	1	2	3	4	5	6	7	8
<i>I receive none of the information I need.</i>							<i>I receive all of the information I need .</i>	

Q.2 How much of the information with which you are provided is helpful to you as a manager?

0	1	2	3	4	5	6	7	8
<i>None of the information provided for me helps me to manage</i>							<i>All of the information provided for me helps me to manage</i>	

Q.3 How well informed are you about your managerial tasks in your organisation?

0	1	2	3	4	5	6	7	8
<i>I am not informed</i>							<i>I am fully informed</i>	

Q.4 How well informed are you about your reporting relationships within your organisation?

0	1	2	3	4	5	6	7	8
<i>I am not informed</i>							<i>I am fully informed</i>	

Q5 How well informed are you about the incentives and rewards which your organisation can offer you?

0	1	2	3	4	5	6	7	8
<i>I am not informed at all</i>							<i>I am fully informed</i>	

Q6 How well informed are you about the current performance of your organisation?

0	1	2	3	4	5	6	7	8
<i>I am not informed at all</i>							<i>I am fully informed</i>	

Q7 How well informed are you about what others expect of you in your managerial role?

0	1	2	3	4	5	6	7	8
<i>I am not informed at all</i>							<i>I am fully informed</i>	

Q8 How much of the information you receive helps you to exercise managerial control in uncertain situations?

0	1	2	3	4	5	6	7	8
<i>None of the information</i>							<i>All of the information</i>	

Q9 How informed are you about the information available in your organisation?

0	1	2	3	4	5	6	7	8
<i>I am not informed at all</i>							<i>I am fully informed</i>	

Q.10 To what extent are you provided with the information you need to help you to develop good working relationships with colleagues?

0	1	2	3	4	5	6	7	8
<i>I am provided with none of the information I need</i>							<i>I am provided with all of the information I need</i>	

SECTION TWO

DO MANAGERS GET THE INFORMATION THEY NEED?

		Actual								Desired									
Q.11	Who specifies your information needs?	0	1	2	3	4	5	6	7	8	0	1	2	3	4	5	6	7	8
		<i>I get the information others say I need</i>								<i>I specify the information I need</i>									
Q.12	Who generates the information you need?	0	1	2	3	4	5	6	7	8	0	1	2	3	4	5	6	7	8
		<i>someone else generates all the information I use</i>								<i>I myself generate all the information I use</i>									

Q.13 Please specify the three types of information you would most like to receive in addition to what you receive at present

1. _____
2. _____
3. _____

Q.14 How much do you rely upon these two sources of information for your success in your job?

4	3	2	Equally	2	3	4
<i>Totally on information provided for you by your organisation</i>						<i>Totally on information you provide for yourself</i>

DO MANAGERS GET THE INFORMATION THEY NEED?

Q.15 How frequently do you review you information needs?

(Please tick the appropriate box).

Daily	<input type="checkbox"/>
Weekly	<input type="checkbox"/>
Monthly	<input type="checkbox"/>
Quarterly	<input type="checkbox"/>
Half Yearly	<input type="checkbox"/>
Yearly	<input type="checkbox"/>
As and when it	<input type="checkbox"/>

seems sensible
to do so

If so, how many months is it since you
last reviewed your information needs?

Please tick the appropriate box

1 - 6	<input type="checkbox"/>
6 - 12	<input type="checkbox"/>
> 12	<input type="checkbox"/>

SECTION THREE

DO MANAGERS GET THE INFORMATION THEY NEED?

Q.16 How frequently does change affect you?

(Please tick one of the following)

Daily	<input type="checkbox"/>
Weekly	<input type="checkbox"/>
Monthly	<input type="checkbox"/>
Quarterly	<input type="checkbox"/>
Half Yearly	<input type="checkbox"/>
Yearly	<input type="checkbox"/>

Q.17 To what extent do you feel that you influence changes in the culture of your organisation?

0	1	2	3	4	5	6	7	8
<i>Not at all</i>								<i>Totally</i>

Q.18 To what extent are you consulted about changes likely to affect your managerial role?

0	1	2	3	4	5	6	7	8
<i>Never</i>								<i>Always</i>

Q.19 Please specify the three types and sources of the information you use most frequently as a manager.

<u>TYPE OF INFORMATION</u>	<u>SOURCE OF THE INFORMATION</u>
1. _____	1. _____
2. _____	2. _____
3. _____	3. _____

DO MANAGERS GET THE INFORMATION THEY NEED?

Q.20 What are the major advantages of using information provided for you by your organisation as opposed to that which you provide for yourself?

1. _____
2. _____
3. _____
4. _____
5. _____

Q.21 Which of the two following aspects of your managerial role do you most value?

4	3	2	Equally	2	3	4
<i>Good social relationships with others</i>				<i>Good task performance</i>		

Q.22 To what extent do you value information which helps you to develop a corporate perspective of your organisation?

0	1	2	3	4	5	6	7	8
<i>I value none of that information</i>					<i>I value all of that information</i>			

Q.23 Please specify the individuals with whom you review your information needs, and indicate the relative frequency with which you review your needs with them.

		Least Frequently	Frequently	Most Frequently
Boss		<input style="width: 50px; height: 30px;" type="text"/>	<input style="width: 50px; height: 30px;" type="text"/>	<input style="width: 50px; height: 30px;" type="text"/>
Colleagues		<input style="width: 50px; height: 30px;" type="text"/>	<input style="width: 50px; height: 30px;" type="text"/>	<input style="width: 50px; height: 30px;" type="text"/>
Information Manager		<input style="width: 50px; height: 30px;" type="text"/>	<input style="width: 50px; height: 30px;" type="text"/>	<input style="width: 50px; height: 30px;" type="text"/>
Others		<input style="width: 50px; height: 30px;" type="text"/>	<input style="width: 50px; height: 30px;" type="text"/>	<input style="width: 50px; height: 30px;" type="text"/>

SECTION FOUR

DO MANAGERS GET THE INFORMATION THEY NEED?

Q.24 Which of the following factors do you perceive as barriers preventing you from receiving the information you would like to have for your managerial purposes?

THE LIMITS OF AUTHORITY

THE COST OF INFORMATION

THE AVAILABILITY OF INFORMATION

CONFIDENTIALITY

PERSONALITY CLASHES WITH OTHERS WHO
HAVE IMPORTANT INFORMATION

LACK OF EASY ACCESS TO INFORMATION

YOUR UNFAMILIARITY WITH COMPUTERS

NOT TOLD ABOUT INFORMATION AVAILABLE

PRESSURE ON YOU TO ACHIEVE RESULTS
QUICKLY

OTHER FACTORS

PLEASE SPECIFY

THESE ON THE LINES
BELOW

THANK YOU FOR YOUR HELP

8.6 Summary

The main points to emerge from this chapter are:

1. The questionnaire set out to satisfy the curiosity of the author of this thesis by posing the question "Do managers get the information they need?"
2. In doing so it asked managers in three sample groups for responses about:
 - a) The quality of information with which they are provided.
 - b) The discrepancies if any, between information provided and that desired by them.
 - c) The influence of organisational culture and values on information provision.
 - d) The barriers to desired information provision.
3. The questionnaire's findings led its author to the following conclusions:
 - a) There is a need for a model of information provision to managers to help organisations to audit the feelings and needs of their managers about the information they need to help them achieve their aims and objectives.
 - b) Managers from different organisations, as well as different managers from the same organisation demonstrated that they have different information needs and unless organisations recognise these and cater for them the time and expense to which they go to provide their managers with information will not yield optimum business results.

- c) Many of the managers in the survey had little consultation about their information needs and, when this did occur it was largely on an *ad hoc* basis.
 - d) Managers are affected by change far more frequently than they have the opportunity to review the different information they will need from the organisation in order to be able to manage these changes effectively.
 - e) Organisations in the survey tend not to recognise the importance of engaging in an on-going dialogue with their managers about their changing information needs as an integral part of their organisation's systems.
 - f) Managers wish to participate in the process of determining information to meet their needs, but not so much in the process of providing that information.
 - g) There is a need to market, advertise and generally promote the information which an organisation has to support its managers to its managers. Organisations need a marketing strategy to accompany the information they have available in order to ensure that their managers, know of its existence and can use it. This justifies an important element in the model.
4. The principles on which the model was founded have been upheld by the findings of the survey and the need for a strategy of information provision which embraces both what managers' information needs are, and how this information can be provided, established to help those who manage these managers to cater better for their needs and to achieve maximum benefit to the organisation from their efforts.

The next chapter of this thesis offers some thoughts on the extent to which this piece of research has progressed towards a model for the effective provision of information for managerial purposes.

Chapter Nine

Conclusion

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Chapter Nine

The question of how far this thesis has progressed towards an effective model for the provision of information to managers remains to be addressed.

As a result of the reading and thinking that have taken place during the course of this research programme a model for the provision of information to managers has been produced. It is founded upon the five key variables mentioned on page 1 which were identified from reading the literature currently available in the subject area as being crucial to information provision. It has been discovered that managers can respond to questions based on those variables, as the survey showed, and also that the needs thus identified could be accommodated by the model into an organisational approach towards information provision to ensure managerial effectiveness.

The relationship between the actual and desired positions of managers on specific dimensions of information provision and generation has been discerned. And it has been discovered that even when managers are fairly satisfied overall with information provision there are certain deficiencies in some key areas which they expressed the need to have remedied. The values of managers for information provided for them has also been tested, and it has emerged that there are certain key areas of information which are highly valued by managers, and these should form the basis of any organisation's information provision.

The author is now much now aware of the difference between the concept of information "provision" and "use". He now regards "provision" as a marketing, active and interactive process; while "use" is thought of as a motivational process. The former relates to a strategy for promoting information while the latter rests in the attitude of managers towards that which is provided for them, and as such emanates from that aspect of behaviour over which each individual manager has total control. It is his/her decision to utilise provided information, and the model and information audit together

have indicated the factors which are most likely to generate that motivation from managers in the work situation. As was said in chapter one, the usefulness of the model would depend upon its capability of being employed in the working environment, and so the survey played a particularly useful role in establishing the need for, and usefulness of a model in this respect.

The small field study revealed that managers wish to be involved in the process of information provision, and that there is a need to have the information provided for them continually revised in the light of changes which a significant number of managers in the survey said faced them on a daily basis. The survey was also valuable in developing an audit which would be helpful to organisations in meeting the challenge of providing information to each individual manager with all his/her idiosyncratic set of abilities, motivations and experience. There is scope to improve the audit by making it suitable for any specific organisations needs and culture, but, as the survey in Chapter 8 shows, it already is a useful tool for determining the information needs of managers. In so doing it has moved the provision of information to managers onto an individual basis as opposed to providing information to a typical, or stereotype of manager, or to groups of managers, in both cases on the assumption that what is being provided will be what is needed. Both the model and the information audit allow an ongoing and constructive dialogue to be instigated with the purpose of encouraging information authorship and therefore ownership among managers for whom the information systems of an organisation are intended.

The costs of providing information to managers by the organisation are high in time, energy and money, as are the costs of not so doing. When dealing with an infinitely changing resource such as information the precursor to the establishment of efficient systems must be to establish the correct philosophy of information provision within an organisation. The model offered by this research is the basis of such a philosophy which will enable an organisation to manage the changes which it faces virtually daily, and to offer a strategy for an information provision system to its managers which

will enable them to face up to this challenge with confidence, and to achieve the best possible results from their endeavours.¹ The model focuses upon the mechanisms for information provision and allows an infinite number of changes to take place in them in order to provide managers with the information they need. This can occur because the model is based upon the needs of the customer ie the managers themselves, and is built around a strategy for catering for these needs which embraces both content and process of information. In this way the managers, their needs and the process by which these can be satisfied are the key elements in the provision process. What information it is best to provide, and how it is best to provide it are elements which are constant in the provision process and to neglect these in favour of information systems which can often be out of date as soon as, or even before they are introduced, is a misuse of time, energy and money for an organisation.

This research has identified the areas of the identification of information needs and information provision as important managerial action points for managers in organisation whose job is to obtain desired results.

The experience of this research has had one major benefit for its author. He is now attracted by the possibility of further investigation into information provision to managers as a basis of organisational success and as a theory of management relevant to the present and future situation of managers who will inevitably have to face changes which are significant and rapid. The role of information provision in such evolution is fundamental and the prospect of working in this area is both challenging and stimulating.

¹ page 68

BIBLIOGRAPHY

- Altman S. "Performance Monitoring Systems For Public Managers" an article in "Public Administration Review" pub. Jan/Feb 1979: pp 31-35
- Arrow K. J. "The Organization Of Economic Activity" The Analysis And Evaluation of Public Expenditure : The PPB System. Joint Economic Committee, 91st Cong., 1st Sess.: 1969: pp 59-73
- Artandi S. R. "Computers And The Post Industrial Society : Symbiosis Or Information Tyranny" an article in "The Journal Of American Society For Information Science" : September 1982: pp 302 -307
- Asch S. E. "Opinions and Social Pressure" an article in "Scientific American": Vol 193: No 5: November 1955: pp 31-35
- Balliga B. R. & Jeager A. M. "Multinational Corporations : Control Systems And Delegation Issues" an article in "The Journal of International Business Studies": Vol 15: No 2: pub. 1984: pp 25-40
- Banbury J. "Information System Design, Organisational Control And Optimality" an article in "The International Journal Of Management Science": Vol 3: No 4: August 1975: pp 449-460
- Beer S. "Platform For Change" pub. Wiley 1975
- Benton P. "The Greatest Challenge To Management" an article in "Management Today" : August 1987: pp 71-72
- Bessant J. & Lamming R. "Making I. T. Fit : The Design Of Integrated Manufacturing Systems" an article in "Design Studies": Vol 5: No 2: April 1984: pp 106-112
- Blake R. R. & Mouton J. S. "The Managerial Grid III ; The Key To Leadership Excellence" pub. Houston : Gulf Publishing 1985
- Boulding K. E. "The Ethics Of Rational Decision" an article in "Management Science" pub. 1966: Vol 12: pp 161-169
- Brown M. "The Dinosaur Strain" pub. Element Books 1988
- Campan V. S. & Bloom A. J. "Information Age Jobs : How College Students See Them" an article in "Personnel": January 1985: pp 66-71
- Canning R. G. "E.D.P. Analysis" Volume 22: No 6: June 1984: pp 83-96
- Carroll S.J. & Tosi H.L. "Management by Objectives : Applications and Research" pub. Macmillan 1973
- Chandler A. D. "Strategy And Structure" pub. Cambridge MA : MIT Press 1962

- Chenevix-Trench T. "How To Manage Information" an article in "Management Today" : July 1979: Vol 30: No 7: pp 18-21
- Collins F. & Seiler R. E. "Causes Of Erroneous Data Input" an article in "The Journal Of Systems Management": vol 30: No 7: July 1979: pp 18-21
- Cuira J. "Managing Media And Resources" an article in "Information Management": Vol 18: No 5: May 1984: pp 12-14
- DeBono E. "Letters To Thinkers" pub. Harrap 1987
- Dennison P. M. "The Management Of Change" a paper in "The Management Journal of Newcastle Polytechnic" pub. 1987
- Dew R. B. & Gee K. P. "Control Information Needs Of Middle Management" an article in "Management Accounting" : April 1972: pp 89-91
- Diprimio A. "Expert Answers 4 Key I.R.M. Questions" an article in "Bank Systems And Equipment Journal" : Vol 21: No 3: pub. March 1984: pp 74-76
- Donnelly J. H., Gibson J. L. & Ivancevich J. M. "Fundamentals Ofb Management" an article in "Business Publications" 1984
- Doz Y. & Prahalad C. K. "Patterns Of Strategic Control Within Multinational Firms" an article in "The Journal Of International Business Studies": Vol 15: No 2: pub. 1984: pp 55-72
- Drucker P. F. "The Coming Of The New Organisation" an article in "Harvard Business Review" Jan/Feb 1988: pp 45-53
- Eichorn R.E. "Office Automation . . . How It's Developing" a paper from the American Institute of Industrial Engineers: Proceedings from 1980 Fall IE Conference: pub. 1980
- Etzione A. "A Comparative Analysis Of Complex Organisations" pub. New York Free Press 1975
- Fiske S. T. & Linville P. W. "What Does The Schema Concept Buy Us?" an article in "Personality And Social Psychology Bulletin": Vol 6: No 4: December 1980: pp 543-557
- Galbraith J. R. "Designing Complex Organisations" pub. Addison-Wesley 1973
- Galbraith J. R. "Designing The Innovative Organization" an article in "Organizational Dynamics": Winter 1982: pp 3-24
- Goold M. "Twelve Management No - Nos" an article in "Management Today": October: 1987 : pp 106-110
- Gorry G. A. & Scott Martin M. S. "A Framework For Management Information Systems" an article in "Sloan Management Review": Spring 1989: Vol 30: No 3: pp 49-59

Granleese J. & Murray M. "Managerial Decision Styles : A Behavioural Gender Difference" (1990) an article yet unpublished. Copies available from J Granleese, School Of Finance and Information, Queen's University of Belfast, Belfast, BT7 1NN

Grindlay A. "The Information Systems Manager As A Statesman" an article in "Business Quarterly" : 1984: pp 6-10

Gross J. & Raynor S. "Measuring Culture : A Paradigm For The Analysis Of Social Organization" : pub. Columbia University Press 1985

Hackman J. R. "A Normative Model Of Work Team Effectiveness" a paper from The Yale School Of Organisation and Management Research Programme On Group Effectiveness : Technical Report 2: 1984

Hallett J. J. "The New 80/20 Rule : Human Resources Are Today's Competitive Factor" an article in "Personnel Administrator": Vol 30: No 3: pub. March 1985: pp 16-18

Harrison E. F. "The Managerial Decision Making Process" pub. Houghton Mifflin 1981

Heller R. "The Business Of Winning" pub. Sidgwick & Jackson 1980

Hodgson A. "Deming's Never-Ending Road To Quality" an article in "Personnel Management": July 1987: pp 40-44

Huse E.F. "Management" pub. West Publishing Company 1982

Janis I. "Group Think" pub. Houghton & Mifflin 1982

Katz R. "Organizational Socialization" an article in "Managing Professionals in Innovative Organisations" ed. Katz R. pub. Ballinger Publishing Company 1988: pp 355-369

Kepner-Tregoe Consultants "The Perceived Future Needs Of British Management" an excerpt from a survey pub. "Management Today": October 1987: pp 101-102

Kilmann R. H. "Five Steps For Closing Culture Gaps" a chapter in "Beyond The Quick Fix : Managing Five Tracks To Organisational Success" pub. San Francisco: Jersey Bass 1984: pp 351-369

Koontz H., O'Donnell C. & Weikuch H. "Essentials Of Management" pub. McGraw Hill 1982

Kotter J. P. "The General Managers" pub. Free Press 1982

Lawler E. & Drexler J. "Participative Research : The Subject as a Co-Researcher" in "Organisational Assessment" pub. Toronto Wiley 1980

Lawler E. "Control Systems In Organisations" an article in "The Handbook Of Industrial And Organisational Psychology" pub. Chicago: Rand McNally 1976: pp 78-96

Lawrence P. R. & Lorsch J. W. "Organization and Environment" pub. Harvard University Press 1967

Leitko T. A. & Peterson S. A. "Social Exchange In Research: Toward a New Deal" pub. The Journal Of Applied Behavioural Science: Vol 18: No 4: 1982: pp 447-462

Lloyd S. "The Manager As A Coach And Counsellor" a conference address given at the Holiday Inn, Seaton Burn, Northumberland for "CareerTrack International Inc. on 11 June 1990

Lodahl T. & Mitchell S. "Drift In The Development Of Innovative Organizations" an article in "The Organizational Life Cycle" ed. Kimberly J. & Miles R. pub. Jersey Bass San Francisco 1980

Louis M. "Surprise and Sense Making : What Newcomers Experience In Entering Unfamiliar Organizational Settings" an article in "Administrative Science Quarterly" : No 25 : 1980: pp 226-251

Lusk E. J. & Wolf A. E. "The Planning Dimension Of A Data Base Information System" an article in "Managerial Planning": Vol 23: No 4: Jan/Feb 1975: pp 36-40

Machin J. L. J. "The Expectations Approach" pub. McGraw Hill 1980

Marlow H. "Individual, Corporate And National : A Profile For The 80's And Beyond" pub. The Institute Of Personnel Management 1984

Marquis D. J. "The Anatomy Of Successful Innovations" an article in "Managing Advancing Technology" : Vol 1: 1969: pp 35-48

McClelland D. "The Achieving Society" pub. Princetown Van Nostrand 1961

McDonagh J. "If I End Up With More Responsibility And Less Control - Forget It" an article in "Accounting Organizations And Society": Vol 8: No 2/3: pub. 1983: pp 191-193

McGregor D. "The Human Side Of Enterprise" pub. New York McGraw-Hill 1960

McNichols T. J. "Managing Resources In The Next Decade" an article in "Strategies . . . Successes . . . Senior Executives Speak Out": ed. McLimore J. F. & Larwood L. pub. Harper Row 1988: pp 39-50

Mehra B. K. "Improvement M.I.S Credibility" an article in "The Journal Of Systems Management": Vol 30 : No 9: September 1979: pp 37-41

Miles M. "Information Management : Becoming A Specialist's Game" an article in "Computer Decisions" : Vol 16: No 14: November 1984: pp 158-162, 164, 168, 170

Miller F. W. "Here There : The Blossoming Of Personal Computers Within Corporations Has Roused Fundamental Questions For MIS Managers" an article in "Infosystems" : Vol 30: Part 4: pub. 1983: pp 28-32

Mohr L. B. "The Concept Of Organisational Goal" an article in "American Political Science Review" pub. 1973: pp 470-481

Monk J. T. & Landis K. M. "Information Control Problems Require Information Sharing Solutions" an article in "Cash Flow Magazine": Vol 7: pub. February 1986: pp 39-41

Mumford E. & Hedberg B. "The Design Of Computer Systems: Man's Vision Of Man As An Integral Part Of The System Design Process" an article in "Human Choice And Computers" ed. Mumford E. & Sackman H. pub. North Holland 1975: pp 31-59

Nader R., Green M. & Seligman J. "Who Rules The Giant Corporation?" an article in "Business And Society Review": Vol 18: 1976: pp 40-48

Nadler D. A. & Tushman M. L. "A Model For Diagnosing Organizational Behaviour" an article in "Organizational Dynamics" The American Management Association: New York : Autumn 1980: pp 35-52

Nemec J. "Computerised Information Control" an article in "The Journal Of Systems Management": Vol 33: No 7: July 1982: pp 28-31

Newton C. W. "Will D.D.P. Extend The Information Executive's Reach Or Will Loss Of Control Shrink D.P. Influence?" an article in "Data Management": Vol 19: No 1: January 1981: pp 24g-24h, 24j

Normann R. "Management For Growth" pub. Wiley New York 1977

"Office '85 : A Joint Project Conducted By Televerket In Collaboration With Asea, Volvo And Scandia": pub. 1979

Olson M. "The Logic Of Collective Action" pub. Schochen 1965

Osmolski R. "If It Was Put In The Bin It Wouldn't Be Missed" an article in "Management Accounting (UK)": Vol 57: No 5: pub. May 1979: pp 38-40

Ouchi W.G. "The Transmission Of Control Through Organizational Hierarchy" an article in "The Academy Of Management Journal" : Vol 21: No 2: pub. 1978: pp 173-192

Oxie G. H. & Shea D. M. "Ten Hot Buttons Facing Management" an article in "Infosystems": Vol 2: No 9: September 1987: pp 60-65, 99-100

Pascale R. "The Paradox Of "Corporate Culture": Reconciling Ourselves To Socialization" an article in "The California Management Review" : Vol 27: No 2: 1985: pp 26-42

Porter M. E. "Competitive Strategy : Techniques For Analysing Industries And Competition" pub. Macmillan New York 1980

Potter C. C. "What Is Culture : And Can It Be Useful For Organisational Change Agents?" an article in "Leadership & Organizational Development Journal": Vol 10: No 3: 1989: pp 17-24

Pucik V. & Katz J. H. "Information, Control, And Human Resource Management In Multinational Firms" papers and proceedings from the "Symposium On International Human Resource Management", Fontainbleau: August 20th-23rd: 1986: pp 121-132

Quinn J. B. "Innovation And Corporate Strategy : Managed Chaos" an article in "Technology In The Modern Corporation : A Strategic Perspective" ed. Horwitch M. : Vol 33: No 2: 1986: pp 178-197

Rockart J. F. & Short J. E. "I. T. In The 1990's : Managing Organizational Interdependence" an article in "Sloan Management Review": Winter 1989: Vol 30: No 2: pp 7-17

Rodgers E. M. & Kincaid D. L. "Communication Networks : Towards a Paradigm For Research" pub. Free Press 1981

Salk J. "The Anatomy Of Reality" pub. Praeger 1985

Schein E. H. "Organisational Psychology" pub. Prentice Hall 1980

Schendel D. "Managing Industry And Organizational Culture" an article in "Strategies . . . Successes . . . Senior Executives Speak Out" ed. McLimore J. F. & Larwood L. pub. Harper Row 1988: pp 7-24

Schon D. "Beyond The Stable State" pub. Noughton New York 1971

Smith S. "How To Quantify Quality" an article in "Management Today": October 1987: pp 86-88

Spector B. A. "From Boggled Down To Fired Up : Inspiring Organizational Change" an article in "Sloan Management Review": Summer 1989: Vol 30: No 4: pp 29-34

Syrett M. "Technology For A Lost Generation" an article in "The Sunday Times Business News" pub. 5 September 1987

Taylor F. W. "Scientific Management" pub Harper Row 1911

Thane D. H. "The Functions Of The General Manager" an article in "Business Quarterly (Canada)": Vol 43: No 3: pub. Autumn 1978: pp 53-61

Thompson M. & Wildavsky A. "A Cultural Theory Of Information Bias In Organisations" an article in "The Journal Of Management Studies" : No 23: May 1986: pp 273-286

Tichy N. M. & Ulrich D. L. "The Leadership Challenge - A Call For The Transformational Leader" an article in "Sloan Management Review" : pub. Fall 1984: pp 59-68

Van de Ven A. H. "Central Problems In The Management Of Innovation" an article in "Management Science": Vol 32 : No 5: May 1986: pp 590-607

Vogel A. "The Information Revolution" an article in "Best's Review" : July: 1984 : pp 88-89

Von Hippel E. "Successful Industrial Products From Customer Ideas" an article in "The Journal Of Marketing": pub. 1978 : pp 39-40

Wallach E. J. "Individuals And Organizations ; A Cultural Match" an article in "The Training And Development Journal": February 1983: pp 29-36

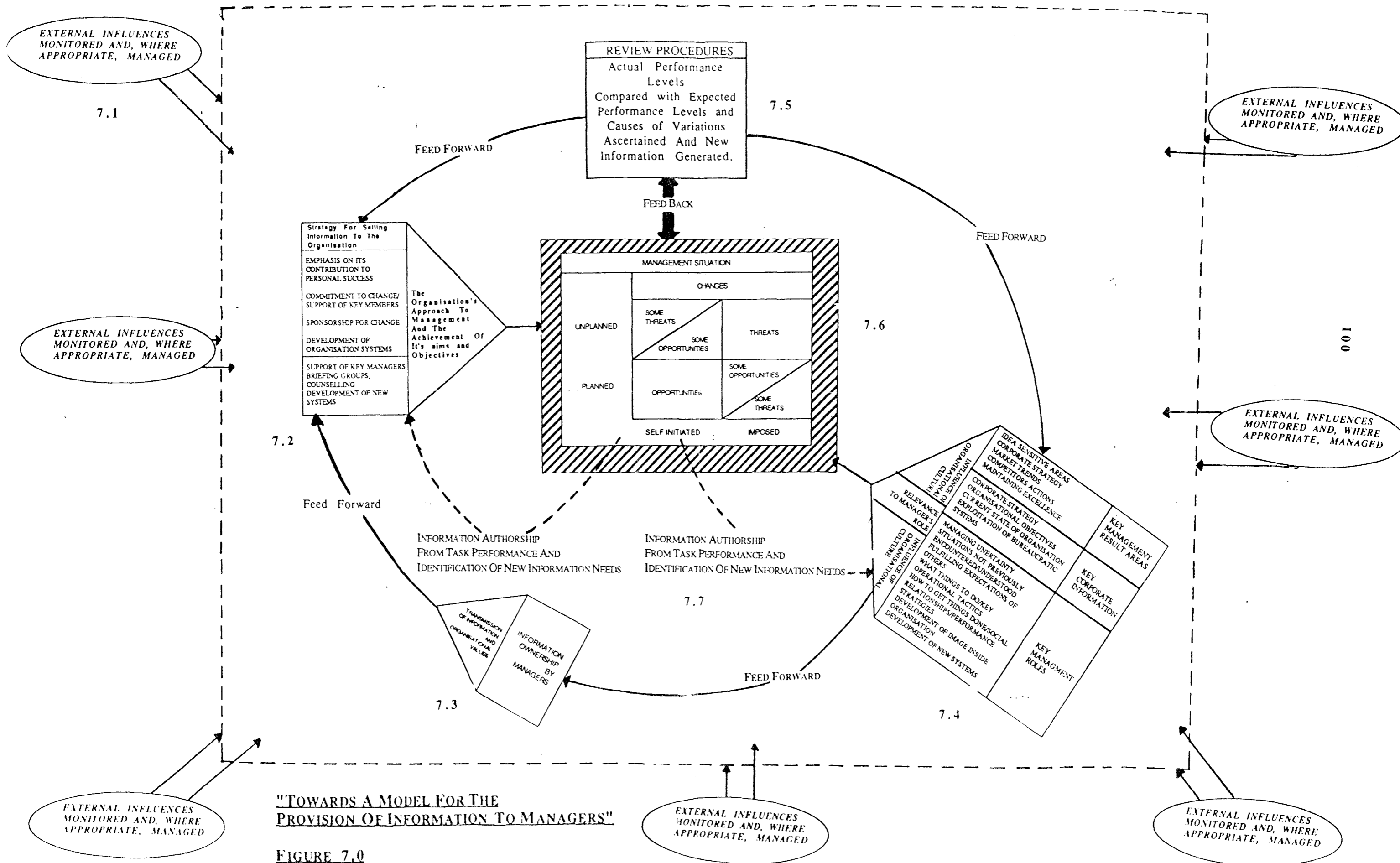
Weiss A. J. "Surviving and Succeeding in the "Political" Organization ; Controlling Your Environment" an article in "Supervisory Management": Vol 23: No 7: pub. July 1978: pp 21-28

"What Management Needs In The 1990's" an article in "Management Today": pub. October 1987: pp 101-102

Williamson O. E. "Markets and Hierarchies: Analysis and Antitrust Implications" pub. Free Press 1975

Zurkowski P. G. "Controlling The Quality Flow Of Information" an article in "Office": Vol 87: No 1: January 1978: pp 128-162





"TOWARDS A MODEL FOR THE PROVISION OF INFORMATION TO MANAGERS"

FIGURE 7.0