A STAKEHOLDER-BASED ORGANISATION PERFORMANCE MODEL

Thesis submitted to the University of Wales, Newport, for the degree of Doctor of Philosophy

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DECLARATION

This work has not previously been accepted in substance for any degree and is not being concurrently submitted in candidature for any degree.

Signed

Date: 11/9/2007

STATEMENT 1

This thesis is the result of my own investigations, except where otherwise stated. Other sources are acknowledged by footnotes giving explicit references. A bibliography is appended.

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SUMMARY

Organisations exist in a vast range of types and sizes. While it is generally known that start-ups suffer a high rate of infant mortality for various reasons, it is clear that there are many different successful approaches to achieving stability and worthwhile contribution. Even the fortunes of large companies are not immune to ebb and flow, and these phenomena are manifested in the effects they have, both on the communities in which they are placed, and on their trading partners. Therefore there is more to sustainable success than size or other traditional financial measures such as turnover, profit, return on investment etc. This thesis is inspired by the need to identify a way of characterising the contributions of organisations as a framework of performance measurement that is meaningful to all organisations regardless of type or size, and systematically relating that view of contributions to organisations' strategic and operational activities.

Business processes are used within organisations to control productive activity and therefore are at the root of all aspects of an organisation's output. There are, however, a number of reasons for processes to be disconnected from the strategic intentions of an organisation, whereupon the processes, and the activities within them, become less efficient and effective in serving the needs of the organisation than they should be. Traditional methods of performance measurement do not adequately address this problem, so a new model for the measurement and improvement of organisational performance is required.

In reviewing theories and empirical viewpoints concerning stakeholders it is found that there are several distinct topics of interest within that field. These are brought together in the form of a standardised list of stakeholder groups, which is then field tested for general applicability. A method for expressing the strategic intentions of an organisation, based on this standardised list, is then developed and is also field tested. The group structure is extended by identifying a number of factors that determine the satisfaction of stakeholders, and these are also field tested for applicability.

Using the structured analysis of stakeholders by groups, and the factors that determine their satisfaction, a model is proposed (the Performance Boundary Model) that shows stakeholders and the organisation itself as distinct but connected domains. This concept is developed, by building on established theory and the findings of the field research, into a representation or model. This model provides a structured connection between strategic intentions and measured operational performance, and these are connected into the organisation through its processes. The model thus provides structured links between organisational strategy, operational processes and objective performance measures.
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TERMINOLOGY

The term "business process" is widely used to describe processes that relate to productive activities in companies, but this thesis is concerned equally with all organisations including public sector and not-for profit bodies. Therefore the term "operational process" is used throughout the text to emphasise the comprehensive scope of application, and is used to cover all activities within an organisation, including production, design and back-office services such as financial planning.
CHAPTER 1
INTRODUCTION

There are a number of problems associated with the formulation and deployment of strategy in organisations, and these are attributed to several causes. One of these is that the method of formulation, being inadequately connected to the operational activities, fails to realistically account for the organisation's operational capabilities and limitations. Another arises when the designers and operators of the operational processes are unaware of their strategic significance, and therefore do not focus their attention on the most important strategic issues. This disconnection is therefore bidirectional, and if it is to be resolved effectively it needs to be addressed from both directions. Thus, on the one hand, the process owners' awareness of their processes' strategic significance needs to be communicated more effectively and in terms that relate to their responsibilities. On the other hand, if the organisational strategy is to be responsive to operational capabilities and prevailing circumstances, the operational performance needs to be measured in terms that can be fed back, as part of a review and improvement cycle, into the formulation of strategy. This concept of feedback and review is one of the basic tenets of management system standards – in fact it is a specific requirement for accreditation in some cases.

A number of well-known models exist which concern the effectiveness and efficiency of management, and the deployment of strategy into the operational workplace. Each of these models addresses particular issues and supports the prevention or resolution of particular problems. For example, in the field of quality there are models such as Total Quality Management, Quality Function Deployment, the European Foundation for Quality Management “Excellence” model, the basic process model represented in BS and ISO standards, and the conceptually simple Plan-Do-Check-Act improvement model originally proposed by Walter Shewhart and popularised by W. Edwards
Deming. In the field of strategic management there is the Balanced Scorecard and various models representing supply chain relationships. In relation to operational process efficiency there is the philosophy of Kaizen, and the principles of Lean.

These models have been widely adopted and, in certain circumstances, make a significant contribution in their own ways. However, they each have weaknesses in regard to resolving the strategic problem addressed by this thesis. For example, some models are predicated on financial performance, and are inclined to value an organisation in terms of its assets rather than its future productive capacity, and others focus on issues which (although important) do not comprehensively address the entire strategic needs of an organisation. These weaknesses are discussed in detail in the literature review and in relation to the requirements of an organisational model.

This thesis presents a model which offers a resolution to these difficulties. It is not intended as a comprehensive model that embodies or replaces all the others, but it approaches the problem of forming and implementing strategy from a fresh viewpoint. In this way it overcomes a number of the weakness of the other models and can be used in conjunction with them. It is founded on the analysis of stakeholders as both the basis of a comprehensive view of the effects of an organisation, and the structure within which the overall requirements and measurement standards can be defined. By this means the model presented in this thesis provides a structure and method for learning about an organisation by evaluating its relationships and their determining factors, and for making use of that knowledge to optimise its performance.

Ontologically, this model recognises the importance of subjective as well as objective values, and offers a structure in which they can be balanced within the overall performance portfolio of the organisation. Epistemologically the model recognises that positivist data is not always adequate to define the perceived performance of an organisation, and that "soft" data can also be very important. Axiologically the model questions the relative strategic values and priorities that define the intended
performance profile, and connects those strategic values to the overall analysis of performance. Systemically the model connects the strategic performance analysis to the key processes that connect the organisation to its environment, and thereby provides an analytical connection between strategy, process and performance. This provides a feedback and learning structure that not only focuses attention on required areas for improvement, but invites periodic reappraisal of the original assumptions on which the performance measures are based.

Concepts published in the stakeholder literature are collected and critically compared. They are used to construct a comprehensive view of stakeholders defined in groups, each of which is developed by association with measurable performance characteristics. This structure has been tested as part of this research programme by field research on a selection of widely differing organisations, and the research method and findings are reported in this thesis. It is shown that a standardised set of stakeholder groups can be used as the basis for a numerically defined profile of values, and that the same values directly relate to a comprehensive evaluation of an organisation’s achievements as perceived by the stakeholders.

This forms the basis for the Performance Boundary Model. In this model, stakeholders are defined separately from the organisation itself, and their strategic values are broken down into measurable performance elements and clearly defined indicators. This provides a transparent, bi-directional, analytical connection between strategic values and operational performance measures. Also the model connects the performance measures into the structure of organisational processes, so that a clear analytical connection is also established between process performance and strategic achievements. The model thus provides a means to address the problem of disconnection between strategy formulation and operational performance.

In constructing the model, particular attention is given to the need for local and strategic feedback, which are both considered important for organisational improvement and development. The design of the model therefore takes into account
additional general requirements, including organisational learning, continual improvement and modelling theory. A chapter of this thesis is devoted to identifying those requirements, and the model is subsequently tested against them.

1.1 AIMS

The general aim of this research is to develop a new model for learning about the performance of an organisation in terms of its strategic values. It starts by questioning its underlying purposes and relating them to all its potential beneficiaries. It then provides a structure for relating these purposes to the processes that govern all the operational activity. In this way the model is intended to permit the classification and communication of the requirements that underpin organisational strategy; to support a structure for continual organisational improvement with reference to those basic requirements; and to transcend superficial considerations of efficiency.

Methodologically the model questions popular ontological, epistemological and axiological assumptions about organisational performance. It is intended to balance subjective as well as objective factors into performance evaluation, and to recognise the need for a subjectivist epistemology that constructs meaning and understanding from performance measurement. It also offers a new method of axiological appraisal which guides the strategic and operational processes towards those issues that are of greatest significance to the organisation as a whole.

This research aim is not therefore simply one of presenting yet another model for managing organisational performance. It is to examine and interpret methodological concepts in relation to organisational strategy and to illustrate the result of questioning popular assumptions about the meaning and purpose of performance measurement.
1.2 OBJECTIVES

The general aim of the research is broken down into a progressive sequence of objectives which draw upon the literature and primary field research. These objectives form the basis of the research method and the interpretation of the results. The methodology underlying the pursuit of these objectives is developed in chapter 7.

1.2.1 To identify an effective paradigm, other than financial performance, for identifying the underlying values that support the strategic intentions of organisations. This is to reflect the requirements expressed in the literature that discusses the non-financial impact of organisations.

1.2.2 To field test this method of expressing organisational values for applicability across a wide variety of organisations in the private, public and not-for-profit sectors.

1.2.3 To express organisational values in terms that provide a clear and structured connection between organisational objectives and process performance requirements.

1.2.4 To present a selection of factors that should be considered when designing an organisational performance model. This needs to be based upon good modelling practise and a critical analysis of existing performance models.

1.2.5 To further develop the paradigm into a model for expressing the structural connection between strategic values, operational processes and organisational performance, thereby to govern and support effective feedback and improvement mechanisms at strategic and operational level.

1.3 CONTRIBUTIONS

The principal contributions of this research will be:
• A review of stakeholder concepts from the literature, encompassing theoretical and practical considerations, as well as related topics including Corporate Social Responsibility and Agency Theory. It will be shown that these concepts can be distilled into a clearly defined set of stakeholder group definitions, and that set is applicable across a wide variety of organisations.

• Using field research with a questionnaire, the list of stakeholder groups will be field tested for application as a structure for defining in numerical terms the strategic priorities for the outputs or effects of an organisation. Using an appropriate scale it will be shown that each organisation can be characterised by a distinctive profile of values. This construct of stakeholders, and the relative overall performance values assigned to them, provides a foundation for the appraisal of performance ontology as well as an axiological basis for prioritising processes and resources.

• Using the set of stakeholder groups, measures are proposed that represent their principal requirements for satisfaction. These are intended to clarify the strategic performance requirements in measurable terms. Additional field research on the same sample will be used to test the applicability of these measures. By this means a connection is established between organisational strategic values and performance measures. The proposed measures, expressed in general terms, do not assume a positivist data collection and analysis epistemology; they allow for an interpretivist approach that takes into account the subjective values that determine the perceptions of satisfaction.

• These stakeholder-related concepts will be used to examine the correlation between the espoused values of an organisation and the actual involvement of the organisation in developing stakeholder relationships. Field research by questionnaire will be used to indicate that a significant correlation exists in the sample.
• The requirements of an organisation performance model will be derived from the literature related to modelling, organisational learning and the need for performance measurement. The need for this will be determined by reviewing the weaknesses of existing popular models.

• It will be shown that stakeholders can be represented in the form of a domain that is distinct from the organisation itself. This will be seen to offer a viewpoint that allows the relationships between an organisation and its stakeholders to be presented as a logical model (the Performance Boundary Model). In the proposed model there is a clearly definable boundary where a transformation of values takes place. This can be seen as an axiological “map” in which process values (outputs) are related to stakeholder perceptions of value.

• The Performance Boundary Model will be developed to provide an effective and transparent analytical connection between organisational strategic values and the methods and measures used to determine operational performance. The model will be shown to provide a further connection into operational processes, thereby establishing a clear analytical link between processes, performance and strategic values, and which can support a reflective performance improvement cycle.

• The model will also be shown to illustrate a new perspective with regard to important methodological concepts. These include a subjective ontology, an interpretivist epistemology and a structured axiology connecting strategic values to performance outcomes.

1.4 OUTLINE OF THE THESIS

Chapters 2, 3, 4 and 5 review the literature. This comprises four main themes. Chapter 2 concerns the limitations of traditional financial measures as a means of
reporting organisational performance. Chapter 3 concerns stakeholders and covers several topics which define the relationships of organisations, not just with customers and investors, but with the community, the environment and other constituencies. Chapter 4 concerns organisational strategy with specific focus on stakeholder-related aspects, and the problems related to its effective enactment. Chapter 5 looks at organisation models and modelling with particular attention to performance improvement models.

Chapter 6 starts by reviewing the findings of the earlier chapters of literature review. It then presents the hypotheses, which are derived from those findings, and which govern the remainder of the thesis. Chapter 7 provides a discussion of methodology, particularly considering ontology, epistemology and axiology, both from the philosophical viewpoint and the relevance to the achievement of the research objectives.

Chapters 8 and 9 concern the field research. Chapter 8 presents and discusses the field research method. This was used to test the feasibility of using the proposed standardised set of stakeholder groups as the basis for expressing the strategic intentions of any organisation. It was also used to examine relationships between the proposed stakeholder groups and measurable factors of satisfaction. The research instrument (a questionnaire) and the method of analysis are explained and discussed in relation to the methodology of chapter 7.

Chapter 9 shows the field research data and analysis, and discusses these findings in relation to the hypotheses.

Chapter 10 looks at the connection between continual improvement and organisational learning, and combines this with the theory of organisation modelling. Taking these concepts into account, the requirements for a stakeholder based organisation performance model are derived and explained.
Chapter 11 presents a comprehensive model, built on the findings of the earlier chapters, which is founded on the relationships between an organisation and its stakeholders. The model provides a structured representation of the key factors that connect organisational strategy to measures of performance, and to the operational processes. The model is shown to address the methodological issues presented as research aims in this chapter.

Chapter 12 reviews and summarises the contributions represented by this thesis, with particular reference to the aims and objectives set out in this chapter, and offers suggestions for further research.
CHAPTER 2

LITERATURE REVIEW OF ORGANISATIONAL PERFORMANCE MEASUREMENT

This is the first of four chapters constituting the literature review. A system of measurement is sought which can be applied to an organisation as a whole, is timely, is reliable, is adaptable to suit the various and changing needs of an organisation and can be structured to provide clear links between the purposes of an organisation and its verifiable performance.

Conventional financial measures are examined, but are considered in the literature to be inadequate in several important respects. Other performance strategies are then considered but are also found wanting. This chapter concludes that a broader and more robust perspective is required – in particular, one that recognises a number of constituents other than shareholders. This provides the background for the second part of the literature review presented in chapter 3.
2.1 INTRODUCTION

This part of the literature review starts by examining the use of classical financial measures for organisational performance. Their limitations are discussed in relation to their use as part of a performance improvement strategy, their role in determining organisational strategy, and their support for Corporate Social Responsibility (CSR), which is becoming an important part of an organisation's overall profile within the community.

Other performance models are then considered, including the use of mission statements as a performance standard, but are all found to be problematic. While some of the literature relates particularly to commercial companies, the subject matter is examined with a completely open approach which could be equally applicable to the private, public or not-for-profit sectors.

2.2 LIMITATIONS OF FINANCIAL PERFORMANCE MEASURES

In the literature, success is not clearly defined in terms of absolute values. Financial factors include capitalisation, turnover, staff count and return on investment, but these are not defined as success criteria in absolute terms. A £1m turnover might be considered spectacular for a self-employed window cleaner, but a complete disaster for a multi-national corporation. There is also evidence (Dawkins and Lewis, 2003; Holt et al., 2004) that public opinion is moving towards a requirement for social responsibility in their purchasing habits, and Smith (2003) indicates how the focus on financial returns incentivises dishonest practice. Handy (2002) reports that the top 100 NASDAQ listed companies, in the first nine months of 2001, were found to have overstated their audited profits by $100bn, which calls into question the accuracy, if not the integrity, of conventional financial indicators.
Sussland (2004) shows that financial indicators do not provide the necessary information about how they are achieved (and, by implication, how they can be sustained or improved). Also, targets based on purely financial measures are restrictive (Wheeler et al., 2003), too often arbitrary, and based upon uncertain expectations of opportunity or competition. Neither are they clearly prioritised in relation to each other and, as these measures are geared to commercial organisations, it is not apparent that they apply to the public or not-for-profit sectors at all. Porter et al. (2004) reports that shareholders retain a stake in any company for only a year on average, and that the "quick fix" strategies favoured by speculators may be contrary to the enduring interests of the company (and by implication its other stakeholders).

Ansoff (1987, chapters 2 and 3) proposes that measures of profitability and returns on capital are not sufficient to support the required decisions of managers, and that there need to be objectives and measures defined in other ways. In particular he shows how capital investment theory is inadequate to define the objectives of an organisation, depending as it does on simplistic financial reductionism. He supports (chapter 1) the view of Alfred P. Sloan that financial returns are, in the long run, an essential requirement for an organisation. But he follows this with an emphasis on the concept of "long run", and how in the middle of the 20th century short-term financial decisions were increasingly found to be unsatisfactory. This then becomes the basis of an objective-oriented strategic framework which takes the longer view into account.

Oakland (1993, p164) supports this view especially with regard to return on investment (RoI), not only for its lagging nature but for its oversimplification. A further complication in the use of financial measures as performance indicators is shown by Simons (1986), in the foreword written by the Rt. Hon. Lord Brown: "the trading accounts of companies, as set forth in balance sheets and profit and loss accounts, have always necessarily involved the use of judgement, because
accounts, contrary to much popular belief, are not and cannot be entirely a statement of objective fact”.

2.3 OTHER PERFORMANCE MODELS

Kaplan and Norton (1996a, 1996b) appreciated the limitations of financial measures and developed the concept of having four sets of measures ("perspectives") which follow a chain of dependency. The financial perspective relates to survival and financial success; the customer perspective relates to customer-perceived performance, collaboration and loyalty; the internal business perspective relates to production capability, efficiency and new product performance; the innovation and learning perspective relates to product time-to-market, portfolio effectiveness, process evolution and technical innovation. The relationship between these perspectives allows an understanding of the apparent disparity that can occur when a high operational performance is accompanied by a poor financial achievement. Their model shows that financial performance is the consequence, perhaps delayed by several years, of management activity, and non-financial measures are vital indicators of future performance. An important weakness of this approach to a balanced scorecard is that it is founded on the existing structure of the organisation and therefore makes the assumption that the organisation structure is inviolate. Some aspects of organisational structure and the way they impact on organisational strategy are examined in the literature review of chapter 4. There it is found that there needs to be some consideration to those performance requirements that transcend departments and divisions within an organisation. Another weakness, discussed by van der Woerd and van den Brinck (2004) concerns the difficulty of adapting the scorecard to incorporate proper consideration of social and environmental performance aspects.

Norreklit (2000) considers the Balanced Scorecard model problematic for several reasons. It has a tendency to be driven by existing competencies rather than the
trading environment. It confuses causal relationships with logical inevitabilities; in other words, increasing margin leads to increased profits not by virtue of a cause-and-effect relationship but because of the definition of the terms used and the conventional arithmetic used to calculate them. It does not consider the time dimension, in which there can be expected to be a delay (sometimes a long one) between the visibility of leading and lagging indicators, and the intermediate state is not represented in the model; this suggests the model is a short-term, static representation and not a dynamic, long-term one as suggested by the inclusion of the learning and development perspective. The measures used may be not be truly objective, and therefore the analysis may not be valid. The four perspectives are shown as a hierarchical dependency, where there are in reality important feedback links leading to interdependency (for example the financial results determine what investment is made in development). The top-down design method of the model does not require sufficient involvement of the internal stakeholders (the people who will be expected to make it work), which could lead to compromised motivation and efficiency; as well as disregard of significant implementation factors. Also, while doing the wrong thing can be logically shown to compromise the result, doing the right thing is not a logical or causal guarantee of the right result; a trailing indicator is unlikely to be the necessary consequence of a small number of controllable leading indicators as there may be other (perhaps uncontrolled, external factors) that also affect the result. Norreklit (2000) also criticises the model for focusing on measurements, which leads to external motivation (the form of motivation that encourages people to concentrate only on those things on which they are being measured) and fails to encourage creative input at operational level. However, no alternative is proposed that overcomes the problem of controlling an organisation through measured values. The Balanced Scorecard is discussed further in chapter 5 with regard to the general principles of modelling.

Blenkinsop and Burns (1992) found that there is often a lack of connection between strategy and measurement, which leads to disappointing results when
Japanese-style performance metrics are applied in the U.K. They draw a distinction between “normative, static” systems which are constructed about standardised parameters (such as defect rates) applied internally to the separate departments, and “dynamic, iterative” systems which are constructed to support the business objectives, and are applied to processes which cross functional (departmental) boundaries. The danger of compromising organisational performance by optimising individual performance is also pointed out, which suggests that the performance of an organisation is not simply the sum of its parts. This implies that there needs to be a performance view or perspective that transcends departmental boundaries and provides a standard for overall collaborative performance.

Taking the viewpoint of Total Quality Management, Dahlgaard and Dahlgaard (2002) show a numerical method for analysing customer satisfaction using a Customer Satisfaction Index, or CSI. This is simply the sum of the products of customer satisfaction and importance for each element of satisfaction, where these parameters are evaluated by questionnaire using Likert scales. This suggests a means of prioritising action for improvement, which can act as a guide for management. Additionally, they propose that there are four basic elements of satisfaction: the company image, the customer expectation, the product and the human interactions. This model only addresses customers, it does not clearly identify service elements, it assumes that the supplier is not a service provider, and it assumes that the supplier is a commercial company. These are serious weaknesses if a model is to be developed which applies to the performance measurement of organisations generally. Nevertheless, it suggests that a relationship may be quantified and analysed by dividing it into a small number of generic topics, and the result used as a management guide for improvement.

ISO9001:2000 (2000) as a management standard evolved from the British standard BS5750. This was originally developed in the 1980s as a departure from product-related standards in an attempt to apply standards to the performance of
management. The principles of BS5750 were adopted by the International Standards Organisation (ISO) and were published in 1994 as ISO9001:1994, but they followed the original procedure-based principles. A major revision in the ensuing years led to the publication of ISO9001:2000, which is founded on process (output-related) principles. Hoyle (2004) reviews the transition of many organisations to this standard and finds that, while they all had objectives and they all had processes (both of these being required by the standard), there was inadequate connection between the two. He also expresses concern that, because customers are mentioned in the standard, there is inadequate attention to other stakeholders, even though the standard intends to satisfy a broader range of stakeholders.

Heskett et al. (1994) consider the relationship between employee satisfaction and customer-related performance, and regard each to be dependent on the other. They propose a ten point audit which focuses on the organisation's performance in relation to the expectations of customers, and the awareness of those expectations within the organisation. Atkinson et al. (1997) offer a compatible approach, which emphasises the importance of having measurement systems in place which specifically support the primary (externally oriented) and secondary (internally-oriented) objectives of the organisation by providing the basis for informed decisions.

The nature and use of models in the support of management is further discussed in the literature review of chapter 5.

2.4 MISSION STATEMENTS

It might be supposed that the satisfaction of a declared mission statement could be the criterion for success. If mission statements indicate the self-proclaimed criteria for success, then the great variety of them (Foster, 1993) indicates that the criteria for success vary widely, they are seldom defined in simple monetary terms and are
often not quantified at all, so they do not generally provide a clear measure of the required level of achievement.

Bartkus et al. (2004), in a wide-ranging comparative study, conclude that mission statements do not represent high quality management tools. While he did not study the methods of preparation, he found that the process of preparing them may be more significant than the statements themselves. Sidhu (2003) finds that there is some correlation between having a mission statement and being successful (in terms of growth), but is unable to define whether there is a causal link or some other independent variable at work. Thus it seems that, while there is some indication that organisations which define their overall purpose are more likely to be successful, the content of the mission statements does not seem to be influential. Also, while a mission statement can provide an indication of the values of an organisation, other means are required to define and communicate a clear understanding of the success criteria and the strategic and tactical foci (deBono, 1986).

2.5 CONCLUSIONS FROM THE LITERATURE ON PERFORMANCE MEASUREMENT.

If the performance of an organisation is to be measured in terms that are compatible with and supportive of strategic decisions then it needs a system of measurement with particular attributes. It must be applicable to the organisation as a whole, be timely, be reliable, be adaptable to suit the various and changing needs of the organisation, and can be made part of an improvement programme which connects with the operational processes.

From the literature it is indicated that financial measures do not meet these attributes. They lack the means to communicate performance requirements which are applicable to (and measurable by) operational processes; they are essentially
monistic, or at least reductionist, where a broader pluralistic structure is required; and they do not provide the necessary decision support for managers. Other models for performance measurement such as TQM address a limited range of beneficiaries (e.g. specifically customers), and do not attempt to comprehensively define who all the beneficiaries are.

It is apparent that neither financial results nor a general statement of mission satisfy the required attributes. The former provides a very precise system of measurements, but does not seem to be measuring the right things at the right time. Financial measures can be considered epistemologically weak as they tend to focus on positivist measures without encouraging subjectivity to introduce meaning or context to the analysis. And they can be considered ontologically weak as they relate to a “reality” that is both indirect (and questionably relevant to the overall purposes of the organisation) and incomplete. Methodological concepts are further discussed in chapter 7.

The latter, so long as it truly reflects the fundamental purposes of the organisation and is not a public relations exercise, is potentially more valid as a basis for performance measurement, as it more closely represents the nature of the organisation’s purpose and the stated aims. It is also potentially more reliable as, in principle, it places no restriction on the balance of positivist and interpretivist measures that support the performance evaluation. The problem is that mission statements don’t (in the usual manner of expression) provide clear and comprehensive indications of measurable parameters, and therefore cannot constitute a sound basis for reliable data collection and analysis.

These issues are further studied in the ensuing chapter, in which stakeholder-related concepts are examined as the basis for defining organisational purposes and relationships. Further conclusions arising from the literature review as a whole, as well as the research implications, are discussed at the end of chapter 5.
CHAPTER 3
LITERATURE REVIEW OF STAKEHOLDER CONCEPTS

This is the second of four chapters constituting the literature review. It follows the review of performance measurement in which it was found that, for different reasons, traditional financial measures and mission statements failed to provide a sound basis for organisational performance measurement.

The pursuit of a system of measurement that is both ontologically and epistemologically sound is continued through a study of stakeholder concepts in the literature. It is found that formal stakeholder theory, with its normative approach to defining organisational responsibilities, lacks the necessary substance to be of value as a performance methodology. But the stakeholder literature is found to encompass a variety of topics that are relevant to understanding how an organisation impacts on a number of constituencies. In considering both the instrumental (“do good to do well”) and the philanthropic (“do well to do good”) viewpoints, there is strong support for stakeholders as legitimate claimants on an organisation, even though there are differing views on who those stakeholders are, and the extent of their legitimate claims.

In relation to any organisation, it is therefore found that the recognition of significant stakeholders, and the evaluation of their required relationships, is discretionary (except where legal or nomothetic requirements are imposed). This then becomes the realm of organisational strategy, in which the purposes and objectives of the organisation are defined in terms that meet the expectations of its principals and provide effective control of the organisation. This provides the background for the third part of the literature review presented in chapter 4.
3.1 INTRODUCTION

This part of the literature review examines the stakeholder perspective and how this may be related to the strategy of an organisation and the conduct of its affairs.

While there are many published theories and ideas concerning stakeholders, ranging from UK Government advice to disputed normative theories and disparate stakeholder-related studies, there is no generally accepted theory as such. Briefly considering a few stakeholder-related topics: some authors discuss the historical development of employee welfare; the environment is currently a hot political topic; and quality systems focus on customers as stakeholders. In regard to these and other topics, the potential influence of different organisations varies enormously, as does the potential impact of public opinion on them. So regardless of any generalised theories each organisation has to determine its own priorities according to its own performance objectives and those factors that have greatest impact. Therefore there is no established normative foundation on which to build meaningful axiological standards (as, for example, with accounting practice or macro economic theory). It is not the purpose of this thesis to develop stakeholder theory for its own sake or to produce another disputed stakeholder theory; the concept of stakeholders is being used as a vehicle to identify those issues that bear upon the meaningful measurement of organisational performance. It has been possible, however, to identify a collection of topics that have proved to be of interest in different ways to different authors in the contexts of their various organisations. Therefore, for the purposes of this thesis, stakeholder “theory” takes the form of a number of components that can be seen through the work of other authors to be potentially significant to the relationships of an organisation; the lack of an established all-encompassing theory, whether current or historical, is not important here. What is important here is that the relevant components of the various ideas and theories are collected, they are given due consideration, and they are used in the development of relevant performance modelling constructs. By taking this approach the concepts developed in this thesis remain open for
discussion, and the resulting conceptual model is not restricted or biased towards
the expression of those issues that are currently fashionable.

Bowie (2002) provides some background into the origins of stakeholder “theory”,
supporting the view that it is, among other things, instrumental and normative. In
other words it is a means to an end, and it sets a standard for acceptable activity.
However, the literature reviewed in this chapter indicates that neither of these
assertions are valid. Firstly, the debate as to whether a company should “do well to
do good” or “do good to do well” is unresolved. Secondly, other than islands of
legislation (such as employment law and the recent Waste Electrical Equipment
directive), which are in any case nomothetic rather than normative; there is no
generally accepted standard – each organisation is free to decide for itself what is
acceptable. This is not to say that there is any lack of opinion on what
organisations should be allowed to do. There are many pressure groups with high
ideals on issues such as animal welfare and the environment, but their views do not
constitute norms (i.e. an organisation that disregards their views is not necessarily
considered to be unacceptable to a significant part of the population).

Unlike many terms in the English language that can be traced back to a particular
origin (perhaps as far back as the ancient Greeks), the roots of the term
“stakeholder” are nebulous and ill-defined. For example, the UK Government
enacted legislation in the 1990s to define “Stakeholder Pensions”, specifically to
enforce contributory pension schemes for employees. Also, in the 1990s there was
a popular movement in the developed countries to react against the progressive
destruction of natural habitat, with a view to protecting natural resources not only
for animals but for future generations of human beings. Somewhere in this period
the term “stakeholder” became accepted as a generic description of the various
issues involved, but as it was used by different people to describe different things,
the popular usage did not clearly define whether the stakeholders were animals, the
environment for its own sake or people (living or yet to be born). Thus, as so many
different things are encompassed by the current usage of this term, it is not helpful

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to trace and analyse its first usage as an indication of its true, current meaning and implications.

With such nebulous applications it might seem that “stakeholder” is such a vague term as to be of little conceptual value. However, it describes a generic concept encompassing a number of disparate but interdependent constituencies, all of which are vulnerable to the activity of an organisation (deliberate or accidental). Therefore, for the purposes of this thesis, the term “stakeholder” is defined as “a semantic vehicle to carry the concept of totality in the influence of a human agency such as an organisation”. To say more than that would seem to restrict or over-specify its applicability.

The literature regarding stakeholders therefore extends over a number of significant topics, each of which is separately identified and explored here. The topic of inclusion brings together a selection of views on who or what should be considered a stakeholder. CSR covers the social, environmental and community effects of organisational behaviour. Conflicting priorities are recognised as a problem where the available resources have to be deployed efficiently for the optimum overall effect, indicating that a pluralistic approach is required. Ambivalence arises in situations where a given stakeholder may be represented by several stakeholder groups, each with different priorities. Latency requires the organisation to recognise the needs of stakeholders who are not directly in contact with the organisation, and whose needs are made known through intermediaries. Agency and stewardship relate to the dependence of stakeholders on others to effectively represent them and to act in their best interests, originally defining the relationship between shareholders and company directors. Finally, measurement considers the issue of measuring the performance of an organisation through its stakeholder relationships.
While some of the literature relates particularly to commercial companies, the literature is examined with a completely open approach which could be equally applicable to the private, public or not-for-profit sectors.

3.2 THE COMMERCIAL PERSPECTIVE

This section of the review is concerned with the relationship between stakeholders and business objectives or measures.

For the determination of organisational strategy, deFeo and Janssen (2001) provide guidelines in the form of a ten-step programme of "strategic deployment", of which the first three steps are the determination of a vision, a mission, and key strategies. The final step is operational measurement, which implies feedback and review. They emphasise the need for the strategy to be determined by the requirements of stakeholders, so it is not unreasonable to suppose that stakeholders, however they might be defined, represent all the beneficiaries of an organisation, and therefore the standards and measures of success by which it is to be judged. This suggests that an appropriate definition and analysis of stakeholders and their requirements may be a possible basis for a broadly applicable framework of measures which can be applied to any organisation, overcoming the limitations represented by financial and customer-centred standards.

Wheeler et al. (2003) link the creation of value to stakeholders. They point out that business value cannot adequately be described in simple economic terms, and that value may be defined differently by different people and at different times. They also describe the stakeholder environment of an organisation as a "community of interest", which comprises interacting but distinct interest groups. They propose three levels of support for an interest group: the basic level is minimal compliance with societal norms, and seeking only to avoid penalties; the second level seeks to foster a culture of good relations; the third requires active collaboration to
maximise the mutual creation of value. This is a useful viewpoint because it indicates how an organisation’s internal processes might be determined in relation to the opportunities offered by stakeholder relationships, rather than simply seeking to satisfy the minimum contractual or legal requirements.

Sirgy (2002) develops a model for performance measurement of a manufacturing company, based on identifying all stakeholders and pursuing the goal of relationship quality through functional performance. He discusses the literature concerning the taxonomy of stakeholders (e.g. “internal”, “lateral” and “external”) but this adds nothing to an understanding of their requirements, and confuses things by designating internal structures as beneficiaries rather than functionaries. The proposed performance metric therefore seems to be aimed at supporting internal structures, and apportioning credit or blame to individuals rather than to improve the organisation's overall performance.

Being particularly concerned with the automotive industry, for which production is extensively automated, Howard et al. (2003) concern themselves with automated communications as a means of reducing order fulfilment times, and the importance of compatible business models and stock management systems. Their concept of stakeholders seems to be confined to the supply chain, but their view supports the view of Wheeler et al. (2003) that the level of process integration is an important factor in the stakeholder relationship.

Snider et al. (2003) offer some grounded research into the perceived needs of some stakeholder groups. In principle this is useful because this approach can provide a foundation for the measurement of achievement of stakeholder satisfaction and therefore success. However, their research is limited in several ways: it is confined to commercial corporations, it does not address all stakeholder groups, and it is based only on the analysis of statements made in their web sites. These statements are of an inspirational nature, rather than being quantifiable, so the research does not help much in defining stakeholder expectations in broad or measurable terms.
Having seen that there is a relationship between the performance of an organisation and its stakeholders, and this extends beyond the customer, it is clear that this perspective merits further study. The stakeholder literature can be seen as a number of threads which, while they interact to form an overall picture, are more clearly understood if they are considered separately. The principal threads covered in the literature are separated into distinct topics in the following sections.

3.3 INCLUSION

This section of the review is concerned with ideas on who or what should be considered as a stakeholder.

The strategic significance of stakeholders is discussed by Atkinson et al. (1997). Defining stakeholders as “an individual or group, inside or outside the company, that has a stake in or can influence the organization’s performance” (p 27), they recognise stakeholders as the following groups (pp 35 and 36): customers, employees, suppliers (and investors), owners (which includes shareholders) and the community. Kaler (2002) attempts to simplify the definition of stakeholder, by saying that it includes anybody to whom the organisation owes a duty, other than the public at large. This does not take into account the statutory authorities whose job is to represent the interests of the community, so the definition is not as clear as at first it seems.

Post et al. (2002) link stakeholders with organisational wealth, and propose that the organisation would benefit most from being a node in a network of interrelated stakeholders. While this recognises that stakeholders may be indirectly influential it is based on the assumption that the organisation under consideration is powerful enough to substantially control the network, which is unrealistic except for the largest organisations. They consider the role of competitors and suggest that while they are not stakeholders in the sense that they have made an investment in the
organisation, they are stakeholders in the industry or market in which they compete, and therefore share common interests which may merit mutual consideration. They identify specific groups of stakeholders: employees; investors and lenders; customers and users; unions; regulatory authorities; partners and alliances; communities and citizens; private organisations, supply chain associates; and governments (in their capacity as supporters or investors, rather than for legal enforcement). These are classified into three broad groups: resources, industry structure, and social-political arena. They propose that stakeholders should have a stake, in the sense that something is put at risk in return for benefits, and that an understanding of stakeholders is a critical source of competitive advantage. While the latter is not disputed in the literature, the former is not supported, especially by those advocating attention to environment and community.

Smith (2003) indicates that there is no clear definition of stakeholders and considers that, while the satisfaction of stakeholders is an important factor in the overall financial results, the linkage between stakeholders and the “bottom line” is often very tenuous. In this sense the viewpoint of stakeholder theorists, which is that stakeholders should be the intended beneficiaries for their own sake, and that of the shareholder theorists, which is that no efforts or resources should be diverted from financial gain, may converge in a sort of enlightened opportunism.

Phillips et al. (2003) claim that the instrumental perception of stakeholders, which is their use as means to achieve organisational goals, is undisputed. They also show that, while excessive concentration on the interests of shareholders is unhealthy, a claim to a broader interest in stakeholders could still be used as a disguise for self-interested opportunism. They also point out some of the expectations of managers as stakeholders, viz. remuneration, power, job security and status, although these are universal among all employees.

None of the arguments indicate that statutory authorities or other enforcing agencies should be excluded from the pantheon of stakeholders, but Heugens and
van Oosterhout (2002) specifically exclude them on the grounds that they consider stakeholders to be only those which have a mutually voluntary association based on the prospect of mutual advantage (or containment of disadvantage). This is basically incompatible with those that advocate support for environment and community, and with Corporate Social Responsibility (CSR), which is reviewed in section 3.4. Also, Carson (2003) argues that, regardless of accepted stakeholder theory, and in the light of high-profile company collapses, the need to satisfy legal obligations has to be a strategic parameter for an organisation, and this has to be consistent with a reward structure which does not encourage illegal or improper financial processes.

Lewis et al. (2003) consider in particular the communication requirements between an organisation and its stakeholders. Their study is concerned with managing change, but it focuses on communicating with stakeholders after the change has been determined. They discuss several facets, including the use of communication as a motivational process as well as the distribution of communication according to the potential advantage or sanction offered by each group. However, the authors disregard the possibility of consulting with stakeholders in order to determine the need for change, and thereby perhaps miss an important purpose for stakeholder communication which could underpin the methods and assigned priorities. They list regulators, customers, media, government and competitors as stakeholders, which extends the list offered by other authors.

There is clearly no consensus on who or what should be a stakeholder. However, so long as any group (e.g. statutory authorities, or community) are considered by some to be usefully included in the list then it makes sense, when preparing a comprehensive list, to include them all. The established understanding of stakeholders could therefore be greatly improved by the construction of such a list, and to discover, when such a list is prepared, whether it is realistic or whether there will be an unmanageable proliferation. This is addressed by the field research of chapters 8 and 9.
3.4 CORPORATE SOCIAL RESPONSIBILITY (CSR)

This section of the review presents a variety of views on CSR, and how it relates to stakeholders.

Cannon (1994) provides a historical summary of CSR, indicating that it evolved from legislation in the 19th century, required to combat the social consequences of unfettered pursuit of industrial wealth. The concept of social welfare was then developed in the late 19th century by people such as William Booth, founders of philanthropic enterprises such as the Salvation Army. In the meantime, Robert Owen and George Cadbury explored the benefits of a humanitarian industrialism, the latter devoting his later years to social philanthropy. Clarkson (1995) finds that CSR lacks any agreed formal structure, either in relation to the issues that it encompasses, the applicable measures, or the bodies to whom responsibility is owed. A number of stakeholder-related issues are listed, with the implication that CSR is no more than a limited view of stakeholders. The UK Government’s view (Department of Trade and Industry, 2004) is that CSR is the business contribution to the country’s sustainable development goals. It concerns how business takes account of its economic, social and environmental impacts in the way it operates, by maximising the benefits and minimising the downsides. “Specifically, we see CSR as the voluntary actions that business can take, over and above compliance with minimum legal requirements, to address both its own competitive interests and the interests of wider society.” This advice is clearly business-oriented, although there is no apparent reason why the principles should not apply to other sectors. It is also a rather vague statement, implying attention to environmental and community costs, without offering any advice on measuring the performance.

In the light of evidence that there is a positive correlation between between CSP (Corporate Social Performance) and CFP (Corporate Financial Performance) Orlitsky (2001) discovers through an analysis of earlier published material that the correlation is not due to firm size, although these finding were not confirmed by
specific field research of his own. The positive connection between CSR and CFP is reported by Simpson and Kohers (2002) for the banking industry, although this only related to one aspect - investment in the community. However, Salzmann et al. (2005) reports the possible connection between CSR and financial performance, referring to a broad range of theoretical constructs from the literature. They find that there is no clear causal link, and that there many complicating factors which render the analysis difficult. The net result of these viewpoints is therefore inconclusive.

Jenkins (2004) reviews the literature supporting the business case for CSR and discusses the self-interest motives of an organisation for taking CSR initiatives. These include attracting better employees, attracting more loyal investors, and the correlation between financial performance and CSR activity. He is primarily concerned with the differences between large and small companies, and points out the differing motivations as well as the apparent effects of scale. Nevertheless, in their different ways, he finds that all companies perceive benefits from pursuing CSR strategies. His review, however, is confined to companies and does not consider public or not-for-profit organisations.

DeTienne and Lewis (2005) examine the case of Nike, which had suffered adverse publicity related to exploitation of its Asian production workers. The issue of how an organisation reports its ethical behaviour, and how this can become tainted with misleading or exaggerated claims, is discussed. In this case the CSR disclosures were not necessarily related to beneficial actions by the company. They conclude that the problem remains with the stakeholder in interpreting the company disclosures when deciding on what relationship they are prepared to undertake.

The field research of Knox et al. (2005) using leading FTSE companies indicates that the motivation for adopting a CSR programme in companies was to enhance brand reputation or employee motivation. The survey method used does not distinguish claim from reality in respect of social outcomes, so there is no
independent assessment of any claims that were made for social benefits. However they believe that there is a significant correlation between the resources devoted to this purpose and the results, albeit only available for large companies. Overall, they conclude that the identification of “social” stakeholders lacks consistency in larger companies, and is absent in smaller companies. This requires that companies need to be more systematic in identifying stakeholders, and engage more strongly with them to be efficient in having the desired effects. Knox and Maklan (2004) looks at the evaluation of CSR performance, and find empirical evidence that both the measures and the accountability are generally inadequate to support CSR as a serious organisational objective.

CSR has been a debating topic for a number of years, but there is still no clear and accepted view on what it really is. The UK Government statement on the subject is vague, and tends towards the philanthropic, while some authors see it as instrumental to the pursuit of their self-interest. Despite the Governmental input there is no legislative or normative standard for compliance, and neither, it would seem, is there any immediate prospect of there being one. Therefore, from the perspective of organisational strategy these distinctions need not prevent each organisation from determining for itself (on whatever basis it considers appropriate) its own social priorities.

Porter and Kramer (2006) consider the standardisation of CSR as a common performance measure, and how that could be used as a basis for identifying opportunities for competitive advantage. They identify a number of problems, some of which are illustrated by the different approaches adopted by share indexes, such as the Dow Jones Sustainability Index and the FTSE4Good index. In assessing the CSR performance of companies they find that the data lack reliability for several reasons. For example, different companies measure different things in different ways; companies that know they perform badly don’t participate or distort their figures; and the available samples are insufficient to be statistically significant. The data also lacks validity because inappropriate surrogates are used.
for data that are difficult to access. Overall they support the argument that it is necessary to “do well to do good”, as the expertise and other resources of a successful company can make a big difference if they are responsibly used. However, there remains a lack of clear definition of CSR, and there is no sound basis for defining or measuring CSR performance.

### 3.5 CONFLICTING PRIORITIES

This section of the review concerns the problems associated with recognising multiple allegiances.

Ansoff (1987, chapter 3) believes that companies have in the 20th century developed social responsibility, and that it is the responsibility of a company to balance the claims of various interested groups. He includes shareholders, employees, customers and the community as legitimate claimants, but points out that there is no normative method for specifying the required balance. While this suggests that there should be a connection between stakeholders (as necessary beneficiaries of an organisation) and the formulation of objectives, it does not provide specific guidance on how the objectives can be determined. For this reason he discards stakeholder theory as a useful guide to the management of objectives, and warns that the measurement of performance against stakeholder-related objectives would be excessively complicated and expensive to implement. It has to be said that, with more recent developments in management information systems, these issues of cost and complexity are possibly no longer significant.

Humber (2002) offers a criticism of the Normative Stakeholder Theory (NST) proposed by Freeman (1984). Freeman’s publication is an important, if disputed, contribution as it defined for the first time a set of norms or standards for the definition and analysis of stakeholder relationships. The criticism is in several parts: the selection of legitimate stakeholders is unspecific, and can be interpreted in so many ways it is of little practical value; the means or criteria for balancing or
prioritising the stakeholders is not explained (all are supposed to be equal, but this is unrealistic in practice); and the use of strictly enforced nomothetic standards (e.g., the law) does not allow for the required flexibility in dealing with complex ethical situations.

Orts and Strudler (2002) point out the need to balance the needs of stakeholders (making the reasonable assumption that all needs cannot be simultaneously and perfectly satisfied). In doing so, they indicate that, if the law (as represented by statutory authorities) is considered as a stakeholder, then this is an absolute requirement which should not be balanced against others. On this basis, they argue that the law is a "given" which is outside the considerations of stakeholders. However, as they offer no advice on what values should be used to balance the interests of other stakeholders or how a value-based decision can be justified under the pressure of conflicting opinion, this does not noticeably simplify the problem.

The problem of addressing the conflicting interests of several stakeholders is also addressed in the "EFQM Excellence Model" (European Foundation for Quality Management, 1992). This well-known model is published as a self-assessment tool for organisations to determine their progress towards "excellence", based on nine defined criteria. Under the heading of "customer focus", it states the requirement to balance and satisfy the needs of stakeholders. In this model, the criteria for assessing the organisation's strategy is based on the need to address the present and future needs of all the stakeholders; employees, partners (customers and suppliers) and society are featured in the model as particular instances of stakeholders. While this model is no less comprehensive as a strategic approach than ISO9004:2000 (2000) it is less prescriptive in terms of enumerating the stakeholders, and provides little guidance in identifying and reconciling their potentially conflicting needs and expectations. The EFQM model is discussed further in chapter 5 in relation to the general principles of modelling.
Conti (2002) quotes from the prestigious Malcolm Baldridge Award, which lists customers, employees, stockholders, suppliers, partners, the public and the community as stakeholders. He asks whether the business community perceives the full range of stakeholders and responds to it. He also divides stakeholders into two groups, internal and external, where internal stakeholders are employees, directors and shareholders, and they carry the greatest power and responsibility for the organisation. He suggests that “society” is represented by the local community, public authorities, educational institutions, research centres, trade associations and consumer associations, but offers no clear feature which binds them into a single group. For example, there is no explanation of why consumer associations cannot be regarded as representatives of customers as stakeholders.

Sussland (2004) suggests that stakeholders contribute resources, and then benefit from the value produced. While we might question the requirement for all stakeholders to contribute resources, it is accepted that they should receive benefits which lead to satisfaction of one sort or another. He further suggests that the resulting satisfaction should be measured and optimised across the spectrum of stakeholders in order that the organisation gains the greatest competitive benefit from its stakeholder relationships. This implies that the components of satisfaction need to be somehow measured in relation to the cost of the resources required, and the organisation’s processes managed to achieve the best balance overall.

In the context of health practitioners, Elms et al. (2002) discuss the problems arising in a health service where capitation fees are payable regardless of the medical requirements. Practitioners have to balance stakeholder interests, in particular the commercial pressures of their practice, against the requirements of patients. The problem of prioritisation is pointed out as a serious limitation of accepted stakeholder theory. There may be a tendency to concentrate on normative values (those which can be formally specified, such as average patient interview time) at the possible expense of more discretionary values, such as how much time each patient should be allotted according to their apparent need or description of
symptoms. They suggest "hypernorms" which somehow identify fundamental values, but offer no clear guidance for determining them.

Marrewijk (2004) examines the changing values of organisations as they progress through their life cycle and the accompanying survival strategies. He proposes that these strategies occur in a fixed order (survival; security; energy and power; order; success; community, synergy and holistic life system), and each builds on the foregoing ones. These core value systems are discussed in detail, showing how the priorities change in relation to different stakeholder groups, although there is little to indicate what takes place during the transitions. This research shows that, for any organisation, value systems have to change substantially as it develops, and any normative standard which defines what priorities an organisation should have, would have to recognise and be complicated by these factors.

Dawkins and Lewis (2003) discuss the results of field research conducted by MORI. The field research supports the view that stakeholder interests may conflict, and that an organisation has to balance those interests. They also found that the stakeholder interests need to be established for each organisation by consultation, rather than by accepting normative indicators. The need for each organisation to set its own relative priorities for different stakeholders is supported as part of a much wider discussion of benchmarking CSR performance by Graafland et al. (2004).

The pluralistic nature of stakeholder evaluation remains unresolved. It is recognised that there is a need to deal with conflicting priorities, and that an excessive attention to one stakeholder group can be expected to act to the detriment of another, but there is no indication of how an absolute or comparative scale of values can be constructed for use in a strategic optimisation process. There is a suggestion that this might be a good idea, at least in a limited context, but it remains undeveloped. Therefore, in the absence of any normative values, or any substantial theory that will enable an efficient balance to be constructed, it remains
a matter of judgement for each organisation to determine for itself the relative priorities or values of the different stakeholder groups.

3.6 AMBIVALENCE

This section of the review discusses the possibility that a stakeholder may have multiple relationships with an organisation.

In the context of this review, ambivalence concerns the conflicts faced by a particular stakeholder (whether a person or an organisation) through having several facets to their relationships with the organisation concerned. By being, in effect, concurrently a member of more than one stakeholder group a stakeholder may have to reconcile such conflicts between their own interests. The possible ambivalent relationship between competitors is illustrated by Williams (2004) who considers the competitive relationships between Microsoft (the market leader in computer operating systems), Novell (comprehensively displaced by Microsoft in the corporate marketplace) and RedHat (a distributor of an increasingly popular alternative operating system architecture). He quotes the Novell Vice President "There is only one obvious enemy. With Red Hat we can share some technologies. It is in our interests to work together."

Stone (2002) also focuses on the environment, pointing out that while individuals may share an objective, their preferred means of achieving it may differ. He identifies four primary "value positions": environment, society, economics and policy, and distinguishes the personal and professional viewpoints which can be experienced by the same people. Thus, a person's job may require them to demand one thing, but their personal involvement (e.g. as a local resident, affected by the company's operations) may require something different. This is an interesting point, as a person may often find themselves taking opposing views according to which interests they represent at any time.
Polonsky et al (2002) also point out the problems of stakeholder theory in identifying the nature and legitimate interests of stakeholders. They suggest a number of factors which determine the relationship between stakeholders and the organisation, and which can be used to guide marketing, but they are not entirely clear about how they are measured, and offer no substantial evidence for their validity. Recognising the need to consider those who do not have a voluntary relationship, they classify all stakeholders into five groups: allied, corporate, neutral, competitive and threatening. This does not seem to allow for the ambivalent relationship of some stakeholders (e.g. a competitor may share an interest in protecting the industry or the local market), so it is not clear that their proposed distinctions serve any useful purpose. However it does admit the influence of those who seek to damage the organisation and the need to defend against them.

On the understanding that customers are not the only people having a legitimate interest in the activities of an organisation, Friedman and Miles (2002) present a model of stakeholder relationships which categorises the influence and importance they have to the organisation. But they offer no advice on correlating it with the perception of value or organisational objectives. Wolfe and Putler (2002) recommend stakeholder management as a process of aligning the organisation to its environment in order to increase the probability of success. They show that simply classifying stakeholders into groups related to their primary roles can be misleading, as individuals may at times have more in common with members of other role-groups than with members of their own. For example, people may be driven by two distinct interests: self-interest (e.g. related to equity) and symbolic pre-dispositions (e.g. related to political or environmental concerns). The tension between these may render them atypical of their role-groups in certain circumstances, and indicates that, while distinct stakeholder groups may be identified, individual people may be in more than one group, resulting in composite behaviour. This relates to the observations of Stone (2002), discussed earlier.
This shows that there are potential limitations inherent in classifying stakeholders into groups. Some stakeholders share interests with several groups, and may even have a balance of interests that are contrary to their most obvious classification. However, there is no suggestion that stakeholder groups cannot be used as an effective analytical tool if they encompass all the possible interests of different stakeholders, so long as it is recognised that there may not be a simple relationship between any particular stakeholder and a group.

3.7 LATENCY

This section of the review considers the relevance of stakeholders that are indirectly represented in their relationships with the organisation.

Phillips (2003) considers the problem of latency, where a stakeholder is connected only indirectly with the organisation. He argues that latency broadens the concept of legitimacy so far as to confuse the whole issue, suggesting that those not directly in contact with the organisation should not be considered as stakeholders. This conflicts with the findings of Alexander (2003), who identifies a number of important customer-interfaced roles which are connected only indirectly to the supplier organisation. This could perhaps be rationalised by defining the customer as including these subdivisions, but Alexander points out that unless they are separately identified, their needs may not be satisfied and this would ultimately reflect on the perceived performance of the supplier.

Jones (2004) identifies, in relation to animal cruelty, the problem of indirect consequences, which is shown as a form of latency in inputs, where others have only considered it in relation to outputs. He points out that companies which claim not to have tested their products on animals continue to use ingredients which have been so tested. He also points out how difficult it can be to completely avoid indirect consequences, as even the water supplies are tested on animals. He does
not, however, discuss the degree of risk or possible extent of damage to the animals used in such tests. For example, it is known that some animals are used to test drugs in ways that lead to their death, while others are used to test water supplies, which would be expected to carry a very low risk of mortality. In considering the importance of animal welfare in determining the choice of raw materials or suppliers, it would seem remiss not to consider these factors.

Taking one particular category of stakeholder, Alexander (2003) addresses the issue of identifying who is the customer, which is a particular problem for large development contracts. He discusses in some detail an example relating to a large project (the development of a new aircraft), and points out the need to be thorough in identifying the roles of various interested parties, including: the user or operator; the maintainer; the purchaser's agent or buyer; the purchaser's management; the government (for political contracts); and those involved in the development. In considering the nature of the customer, Cox (2003) explains the strategy of Unilever in identifying the distinct requirements of their customers (distributors) and consumers (end users) and using this knowledge in the design and packaging of their products. Both of these provide a compelling argument for including latent stakeholders.

Earlier work by Clarkson (1995) shows an attempt to stratify stakeholder groups into primary (those that can be considered an essential part of the organisation) and secondary (those that are non-essential). However, when attempting to draw a line to divide these two strata, the division can be seen as more a matter of degree, or perhaps reaction time horizon (how long it takes for the consequences of an action to become visible), than a clear analytical boundary based on a substantial step in significance that can be expected to be the same across a wide variety of organisations. For example, he proposes that the environment is classed as a secondary group, but it is not difficult to think of cases where, for example, poor treatment of the environment may eventually result in serious or even fatal consequences for the organisation, either through litigation or loss of reputation.
This is an example of an issue that can be expected to vary between organisations to such an extent that a generalised classification is likely to be unhelpful.

It is clear from the literature that it is necessary to allow for the needs of stakeholders that are not in direct contact with the organisation. While it may be possible for their interests to be adequately represented through intermediaries, there may be conflicting interests. For example it can be imagined how a distributor that earns income from supporting products in service may wish to encourage a manufacturer to use “lifed” components that need replacement at intervals, even though that may not be in the best interests of the user either in terms of lifetime cost or continuity of service. How an organisation determines the interests of latent stakeholders is not at issue here because it varies so much according to the nature of the products and the relationships in the supply/customer chain, but if the concept of stakeholder groups is to be used as a means of identifying the strategic and operational priorities of an organisation, then they must all be included. There is also no convincing argument in the literature for stratifying stakeholder groups in any way that requires latent stakeholders to be considered differently for analytical purposes.

3.8 AGENCY AND STEWARDSHIP THEORIES

This section of the review looks at two different aspects of fiducial responsibility.

Agency theory is founded on the premises that those who own a company (the shareholders) have no direct control over its activities, and are therefore unable to directly ensure that they are properly rewarded for their investment. They therefore depend on the company directors to represent their best interests. This relationship, being between a principal or owner and an agent, is the foundation of agency theory.
Davis et al. (1997) presents agency theory in the context of principals (e.g. owners) and agents (e.g. managers) whose interests may diverge, but who have a mutual interest in maximising benefit through the organisation with least expenditure. They propose that the theory is concerned with ensuring the agent acts in the best interests of the principal, who is dependent on him and therefore needs to be protected through monitoring and controls. The argument assumes that the interests of the agent are contrary to those of the principal, and that agency theory is not applicable to other stakeholder relationships.

Fama (1980) proposes that a firm is no more than a set of contracts which relate different factors, and those factors are governed by a free market. Thus, providers of capital and labour as individuals served by those contracts can freely migrate to other firms. This leads to the conclusion that an organisation is disciplined only by competing organisations, in the sense that they compete for the same resources. This analysis only applies to commercial organisations, and is focused on the relationship between two particular stakeholders (shareholders and directors), but it raises the question of what role an organisation serves in relation to stakeholders, and the potential volatility of the stakeholder relationships.

Eisenhardt (1989) provides a broad review of the literature concerning agency theory, which she presents as a way of managing the principal/agent relationship as a contract. This relationship is shown to apply to other examples involving different parties than owners and managers, which is significant in the context of stakeholder analysis. She explores a particular aspect which is the choice of contract type, between behaviour-oriented or outcome-oriented (is the agent to be measured by what he does, or by what he achieves?); thus some may be rewarded by salaries and others by commissions. This choice is determined by the parties' attitude toward risk and uncertainty of outcome, so if the principal is risk-averse or feels that the outcome is uncertain he will opt for an outcome-oriented relationship. Availability, or lack of it, of information to the principal also features in this choice. If the principal is in doubt as to the activities or achievements of the
agent he may wish to reduce the risk. In this context, information systems can operate to provide confidence in the level of disclosure, and can then become a factor in the appraisal of risk and the choice of contract. She does not, however, mention track record as a significant factor in the choice of contract, even though this is commonly used to assess risk in business relationships. Neither does she mention the learning process by which agents are expected somehow to improve their capabilities, rather than simply to carry on responding in ways that might no longer be appropriate.

The ability of an organisation, through its agents, to learn and improve is considered important by Argyris and Schon (1985), where it is termed "double loop learning". This distinguishes the development of problem-solving capability within an established framework of operation (single-loop learning) from the ability to change the framework itself (double-loop learning). Similar considerations are addressed by Senge (1990, 1993) where it is termed "adaptive learning". This is founded on the correct analysis of the causes of problems or restraints on improvement, and identifying how to counteract the self-sustaining feedback loops that obstruct improvement.

Daily et al. (2003) review stewardship theory, and conclude that it applies where the stewards (directors) have common interests with the shareholders. This might be financial, such as providing them with share options, or personal, such as gaining a reputation related to the success of the company. They, and other authors, do not state what is perhaps the most important inducement of all – shareholders have the power to remove directors – or the particular responsibility of directors which makes them criminally liable for impropriety, a restraint which does not apply to shareholders as such, and whose liability only extends as far as the value of their shares. Neither do they mention collusion, such as insider trading, which is illegal. It is pointed out that problems arise when the inducements offered to the directors are not entirely compatible with the long-term prospects of the organisation.
Davis et al. (1997) consider stewardship theory as an alternative to agency theory. This is on the presumption that the agent has a pro-organisational motivation which could be achieved through facilitation and empowerment instead of through control. At first sight the agency and stewardship theories would appear to be mutually exclusive as one is founded on trust and empowerment while the other is founded on divergent interests and the need for control. The authors propose that either of these alternative theories can be effectively implemented, as long as the required relationship between each principal and each agent/steward is consistent with both parties. Problems arise when one requires an agency (control) relationship when the other requires a stewardship (motivation) relationship.

Agency and stewardship theories concern the relationships between parties acting through the intermediary of the organisation. They are broadly distinguished by one being a relationship of control and the other of trust. However, while one party (the principal) can be considered as a true stakeholder (for which the organisation has to recognise some sort of responsibility for satisfaction), the other (the agent) is acting as a resource deployed by the organisation. It can be presumed that the agents do so for the sake of some sort of reward, albeit not necessarily financial, and as such should themselves be considered as stakeholders. Therefore, as this literature review is concerned with stakeholders as beneficiaries rather than resources, it must be recognised that agents or stewards, even though their role suggests that they are resources, need to be considered also as stakeholders. However there is no indication in the agency/stewardship literature that this requires an additional group of stakeholders beyond those already considered as employees or directors.
3.9 MEASUREMENT

If an organisation recognises that it is required to provide satisfaction, it is important to define how that satisfaction is to be measured.

The widely adopted international standard for management quality, ISO9004:2000 (2000) makes frequent mention of "interested parties", specifying the need to establish effective relationships with them, to measure and analyse the performance of the organisation as it affects them, and to use those measures as part of a continual improvement feedback cycle. The standard does not define a set of stakeholder groups, so this requirement is left open to interpretation by the implementing organisations. While financial results are part of the overall organisational performance measurement, it is clear in the standard that there is a requirement for a much broader range of measures which relate to operational efficiency as well as stakeholder-perceived performance. However, this also is left open for interpretation according to the nature of the organisation. An implication of the standard, and the way it requires reporting of performance against organisational objectives to top management, is that the performance improvement process reviews not only the operational activity but also the effectiveness of the organisation's strategy, which might be expected to change from time to time.

In respect of measuring performance, Sussland (2004) points out the need for a two-way relationship with stakeholders which responds to performance measures determined by direct feedback rather than by extension of the assumed virtues of the product or service features. This is an important point as it challenges the assumption that doing something well necessarily achieves the required result. Dawkins and Lewis (2003) indicates that an organisation has to act out its claims, if not to lose reputation, so it is not enough to claim support for social or environmental welfare without being seen to do something about it. These arguments, in their different ways, support the need to collect, analyse and respond
to feedback from the stakeholders, and to ensure that the feedback relates to the
issues that are important to the stakeholders.

Total Quality Management (TQM) is primarily aimed at customer satisfaction
(Oakland, 1993, preface and chapter 1), but there is no apparent reason why the
same principles cannot be applied to other stakeholders. TQM recognises that
internal processes are the key to achievement, and these require to be subject to
continual improvement based on internal (e.g. process) and external (e.g.
benchmark) performance measures. While there are many well-tried tools for
analysing performance data, they depend on reliable and relevant sources
(Oakland, 1993, chapter 7), which implies that standards of performance for an
organisation need to be determined by direct reference to all the stakeholder
groups.

Malvey et al. (2002) look at a way of evaluating the relationship between an
organisation and its stakeholders, and attempts to relate that to organisational
performance. They propose six steps in an overall stakeholder management
process: identify the stakeholders; focus on those that are most important; diagnose
the essential relationships; formulate a strategy, implement the strategy by
allocating responsibilities; and use a report card to measure performance. They
suggest that performance is measured in several dimensions (which are generally
bi-directional), for which they suggest: information exchange; representation of
values and goals; communication of cultural values; and collaborative linkages.
Each of these can have several measurable factors.

Wheeler et al (2003) propose three levels of commitment between an organisation
and a network of interested parties. The first simply seeks to avoid penalties; the
second seeks to foster a culture of good relations (this is described in philanthropic
terms without indicating what incentive there is for pursuing it); and the third
requires the organisation to be instrumental in seeking collaboration with
associates to maximise the overall creation of value. This concept is broadly
supported by Clarkson (1995) who proposes that the organisation's relationship with stakeholder issues falls into any of four categories, described as the RDAP scale: reactive, defensive, accommodative or proactive. Each rating corresponds with an enacted strategy (although it is not stated whether this is entirely deliberate) and evidence of performance. The boundary between reactive and defensive, as they both indicate a deliberately unconstructive posture and a marginal or poor performance, does not seem to be of great analytical or practical value, so this seems also to result in a three-point scale. A related issue, also raised by Clarkson (1995) concerns the way in which the stakeholder groups and the satisfiers are represented as constructs for analysis. He proposes four: description, performance data, evaluation and analysis, but makes no mention of how they might relate to enablers, such as operating processes.

Meyer and Schwager (2007) point out a number of problems arising from Customer Relationship Management (CRM) programmes that focus on competitive product marketing. The concept of customer experience is defined as "the internal subjective response customers have to any direct or indirect contact with the company". This is intended to recognise, for example, the importance of post-sale support and the damage that can be done by inappropriate use of call centres. Emphasis is drawn to the customers' perceptions of value, rather than simply the price/specification/delivery factors. They recommend that a number of different techniques are used for data collection, from sales trend analysis to internet response forms, and the analysis of some things on a frequent basis.

3.10 CONCLUSIONS FROM THE LITERATURE ON STAKEHOLDERS

There are many different views about what stakeholders are, and how they relate to the activities of an organisation. In some cases it is considered that a broader view of stakeholders than merely shareholders is required to enable a sustainable organisation; in other cases it is felt that it is the philanthropic responsibility of a successful organisation to benefit stakeholders other than those essential to its
survival. Thus, while stakeholder benefits may be considered instrumental to the achievement of an organisation’s required performance, they are not necessarily so. And any benefits that are considered to be instrumental are not necessarily immediate as they may be related to longer-term reputation, and could therefore be considered speculative. Neither is there a consensus on what constitutes a stakeholder, and without such a definition there can be no basis for a normative theory of required relationships.

The literature shows that measures of stakeholder satisfaction can be an important factor in determining organisational performance, even though the significant stakeholders vary from one organisation to another. It is also recognised that stakeholder satisfaction can be a complex thing to measure: it needs to take into account a variety of factors that vary from one constituency to another; and it needs to recognise subjective factors that can only be assessed through stakeholder feedback.

It is also found that measurement of performance should be part of a feedback or improvement cycle. This requires that there is some basis for comparison between the measured indicators of satisfaction at operational level, and the strategic requirements which determine the corresponding target performance measures and expectations. Therefore, whether the instrumental or philanthropic motive prevails in any particular case, there needs to be some method of defining the organisation’s expectations of its stakeholder relationships and having in place some system for evaluating outcomes. Thus, the concept of stakeholders as beneficiaries can provide a link between organisational strategy and operational processes (processes being defined by outcomes rather than activities).

This connection with organisational strategy is pursued in the next chapter, in which strategic concepts are examined particularly where they relate to stakeholders. Further conclusions arising from the literature review as a whole, as well as the research implications, are discussed at the end of chapter 5.
This is the third of four chapters constituting the literature review. It follows the literature review of stakeholders, in which it was found that measures of stakeholder satisfaction can be an important factor in determining organisational performance. However it was also found that there is no clear normative standard for establishing performance requirements or metrics in relation to stakeholders.

Consider first the instrumental view, where stakeholder satisfaction is a prerequisite to achieving the required organisational performance. Here, the organisation’s strategic aims can only be achieved if the strategy recognises and supports stakeholder expectations. Consider then the philanthropic view, where it is considered to be a duty of the organisation to take a responsible position. Here, it would be necessary to enumerate the stakeholder expectations in order to determine the strategy required to support them. While the relative priority of different stakeholder groups could be expected to vary between these views, they both support the principle that there needs to be a strong connection between strategy and stakeholders.

This chapter pursues this problem, and attempts to determine the connection between strategic intentions and organisational performance. It is also concerned with whether and how the formulation of strategy may be linked to stakeholder perceptions of performance. It is primarily concerned with strategic intentions rather than implementation methods or tactics, and is therefore not intended to be a rigorous analysis of strategy as a subject in its own right.
It is found that in the formulation and deployment of strategy, there needs to be an effective two-way link between these elements, depending on effective communication, feedback and responsiveness. Also, there needs to be a strong relationship between organisational activity and required achievement, which depends on a clear definition of value. These issues are found to connect with stakeholders as beneficiaries, either in the strategic process itself or in its formal prerequisites.
4.1 INTRODUCTION

This part of the literature review examines strategic issues, and in particular the relationships between strategic intentions and operational performance. Problems are identified in communication, where strategy may be formed without due regard to the capabilities of the operational resources, and the strategic intentions may not be made clear at operational level. While process-based and department-based structures are discussed in the literature, the key to effective deployment lies in prioritising stakeholder performance rather than the support of internal structures.

While some of the literature relates particularly to commercial companies, the literature is examined with a completely open approach which could be equally applicable to the private, public or not-for-profit sectors.

4.2 STRATEGY AND TACTICS

deBono (1986) distinguishes strategy from tactics. Strategy is described as a general-purpose approach to dealing with situations, which characterises an individual and forms a framework for responses to circumstances or situations. Tactics are described as the approach to particular situations, and which adapt or extend the principles of the general-purpose strategy. In an organisational context this is supported by examples taken from a wide range of industries. This definition of strategy assumes a level of prescience or stability, as there is no advantage in applying a strategy that does not recognise the circumstances that occur, nor in having a strategy to deal with circumstances that do not arise. Tactics, however, can be responsive so long as the strategy is not restrictive.

Ansoff (1987, p27) offers a different viewpoint, based on management decisions and the underlying strategy required to support them, but in relation specifically to resources. He proposes three distinct classes of management decisions: strategic, being concerned with the overall requirement for resources; administrative, being
concerned with the management of resources; and operating, being concerned with the utilisation of resources.

Through field research, Andersen (2004) finds that in turbulent environments decisions concerning new business activities, product developments and policy changes made by middle managers can impart a necessary agility to an organisation. However, this needs to operate within a structured framework. That structure must have been the result of some decision process, so while he does not use the same terminology, Andersen supports the connection between strategy and tactics proposed by deBono. Cousins (1999) finds that "it is vitally important when considering the implementation of any new strategy that the internal infrastructure is firmly in place", by which he means people, systems and processes. This implies that the successful outcome of strategic change depends on having an organisation in place that is capable of implementing it. This also implies support for connected layers of strategic decisions.

Mintzberg (1978) defines strategy as "a pattern in a stream of decisions", which does not distinguish it from tactics, and as a plan which may be thought out in advance or may be emergent (adapted in response to unforeseen changes). While he apparently favours emergent strategies, the two methods of formulation are presented as alternatives, as if a strategy should not be thought out in advance and then revised or adapted on a continual basis. Support for emergent strategy is broadly in agreement with the management system strategies promoted by ISO9001:2000 (2000) and ISO9004:2000(2000). These require a continual feedback and improvement process, which implies continual review of strategy as well as operations.

4.3 FORMULATION AND DEPLOYMENT OF STRATEGY

Strategy, according to Kaplan and Norton (2004, p4 et seq.) in the context of the "mobilization and alignment of intangible assets", describes how an organisation
"intends to create value for its shareholders, customers and citizens". Statistics prepared by Bain and Company are quoted, indicating that fewer than ten percent of the surveyed companies achieved their strategic targets. This situation is attributed to failure in connecting the formulation of strategy to its implementation. The authors claim a higher success rate for companies that implemented the Balanced Scorecard, but it is not clear whether some other factor was responsible. For example, an organisation that is capable of implementing a Balanced Scorecard might be expected to possess a better than average management skill set. The problem of causality between variables in statistical data is one that has to be considered carefully, and cannot be inferred simply from an association,

Frigo (2003) points out the integral relationship between strategy and execution. He warns that quality awards and continual improvement programmes can still lead to poor overall performance if they are in support of an inappropriate strategy. This emphasises the need for operational processes to be founded on a correct appreciation of the requirements of the organisation as a whole, and the need for the strategy to be correctly formulated to meet the intended purposes of the organisation. Ansoff (1987, p23) defines the overall problem of the business of a firm is “to configure and direct the resource conversion process in such a way as to optimise the attainment of the objectives”. This reinforces the view that it is not enough to formulate strategy – it has to be effectively implemented.

deFeo and Janssen (2001) provide guidelines for determining strategy and the mechanisms required to support it in a structured programme of “strategic deployment”. They offer a ten step programme based on: a vision, a mission, key strategies, strategic (measurable) goals, cultural values, communicated policies, top management leadership, deployment of measurable goals, use of Key Performance Indicators (KPIs), and performance reviews using scorecards. They emphasise the need for the first step (mission) to be determined by the
Mintzberg (1990b) questions the assumption that operational data, which is required to determine strategy in recognition of the organisation's strengths and weaknesses, is reliably transmitted to the strategists if strategy is formulated as an entirely separate process from implementation. Coupled with variations in the environment, this may render poorly informed strategy itself the prime cause of strategic failure. In suggesting that "emergent" strategy derived from organisational learning may be more effective, Mintzberg does not consider the long-term effects of strategic decisions. In other words, however less than perfect it may be, it may be preferable to make something work than to keep changing it. He does, however, suggest that emergent strategy is more appropriate in times of greater uncertainty or turbulence, and analytical strategy more appropriate in times of relative stability. This is supported by Anderson (2004).

Mintzberg et al. (2005, p122) addresses the issue of reliability of the information from which strategic decisions are made. He compares "hard" information, characterised by numbers, with "soft" information, characterised by impressions. He argues that "hard" information is frequently unreliable but is used as a surrogate for the truth because the decision-makers are physically isolated from the processes, and are unable to form for themselves an accurate view of what is really going on. "Soft" information responds to impressions, which contain some indication of reliability. These views are compatible with the epistemological considerations discussed in chapter 7, where interpretivist contributions are necessary to put positivist knowledge into context and to determine whether it is relevant.

Lynch (2006, chapter 1) describes corporate strategy as "the identification of the purpose of the organisation and the plans and actions to achieve that purpose". The core areas are later enumerated: strategic analysis (considering the mission and
objectives); strategy development (considering the resources, including external relationships); and strategy implementation (a strategy that cannot be implemented is of no value). This supports the views of deBono (1986) and Ansoff (1987), discussed in the previous section, although tactics are here considered as a part of strategy rather than a separate topic in its own right. One of the stated elements of strategy is linkages to the environment, but this is described in terms of stakeholders as resources rather than beneficiaries. But when considered alongside deFeo and Janssen (2001), this approach depends on a pre-determined mission which in turn depends on an appraisal of the nature and needs of stakeholders. Therefore, while stakeholders are not specifically mentioned as required beneficiaries, their needs are assumed to have been evaluated as part of the prerequisites to the strategy formulation process. An interesting omission in the defined approach is that, while the feasibility of implementation of strategy is emphasised, there is no indication of how this might be ensured, either through local feedback in the formulation of strategy, or through organisational performance appraisal and feedback. Also, when considering public organisations, they emphasise the political and funding aspects but make no mention of the fundamental purpose of a public organisation (and therefore its strategy), which is to serve the community in the prescribed area of responsibility. It is then unclear how the strategic process establishes the constituencies and their entitlements in order to ensure the required delivery performance.

Nadler and Tushman (1999) provide a list of eight strategic core competencies, which they believe to be widely applicable. These relate to: the speed of response to external changes, focus on those operations that create the most value, rapid internal response to required change, flexibility in meeting market requirements, responsive formulation of strategy and adaptable product strategy. These core competencies are stated in terms of large companies, although there is no apparent reason why the same principles could not apply to organisations of any size.
Beer and Eisenstat (2000) studied 150 business units in 12 companies, and identified six particular reasons for the failure of companies to implement strategy. Top-down or laissez faire management style (one-way or no-way communication) leads to poor motivation and understanding of their expectations among junior managers. Unclear strategy and conflicting priorities lead to management time and energy being wasted on arguing over competing resources. Ineffective senior management, implying that they each pursue their career objectives without cooperating fully, leaves their junior managers isolated from effective support. Poor vertical communication prevents junior managers from gaining necessary support for difficult problems. Poor co-ordination across functions leads to problems similar to those of conflicting priorities. Ineffective senior management skills arise from lack of commitment to management training or coaching, and obstructs effective change leadership. These reasons for failure are partly a result of poor top-down communication, and partly a result of inadequate performance-driven feedback and review.

Nohria et al. (2003) present an analysis of 160 successful USA companies in the period 1986 – 1996. They discovered that they all outperformed their competitors in several management activities, and in particular their implementation of strategy. This superiority was found to be based on the following: clarity; consistent communication to customers, employees and shareholders; a value proposition relevant to targeted customers; and a realistic appreciation of the company capabilities. This reinforces the necessary role of feedback from the operational processes, and adds a requirement for effective communication with stakeholders in which their requirements are connected to the management strategy.

Christensen (1997) finds that strategic thinking is not a core competence of managers or one that they practice repeatedly, with the effect that obsolete strategies which reflect ignorance or out-of-date biases are often employed. He also finds that the processes of strategic formulation may be isolated from the
development of products and processes, and disconnected from the "realities of the marketplace".

Akao (1991) presents Hoshin Kanri as an approach to strategic deployment, in which the focus is primarily on continual improvement through careful analysis of the nature and causes of problems. This makes use of the "Plan - Do - Check - Act" (PDCA) cycle, but starting with the check phase. It requires that targets at operational level need to be realistic in relation to earlier achievements (which imply a proven capability), not simply as an apportionment of organisation requirements. This suggests that organisation targets need to be set at the sum of realistic operational targets, but in such a way that they encouraging further improvement or continual development.

The foregoing indicates that there are inherent risks associated with adopting a fixed strategy, not the least of which are connected with a necessarily incomplete knowledge of the issues involved, and the need to respond to changing circumstances. There is strong support for the need for some adaptive mechanism which causes the strategy formulation activity to be iteratively responsive to feedback from operational performance. This problem seems to be conceptually similar to the moving target tracking problem in weapons systems design, for which there are analytical solutions, but none of the management authors have proposed an analytical model for the adaptive improvement of strategy.

4.4 RELATING ACTIVITY TO ACHIEVEMENT

Hines et al. (2000, chapter 5), in presenting their VALSAT value stream improvement tool, emphasise the importance of understanding the customers' real needs, which are not necessarily stated overtly. This is not unlike the competitive strategy of Porter (1985), who suggests getting behind the product interface to do business at management level. Hines et al. present a mapping method which represents the customers' requirements (elements of satisfaction) as rows and the
product and service level features as columns, and allows the relationships to be analysed. This seems to support the later work of Hatten and Rosenthal (1999) who systematically segregate and correlate considerations of capability and competence, as mentioned in the topic of internal structure. Another chart is used to analyse the compatibility between products and service levels, to see whether they conflict. The idea is to bring the best possible focus on the things that really matter to customers, thus reducing wasted time and effort for all concerned. This article is reproduced in Hines et al. (2000).

The problem of relating capabilities (what you do) and capacities (the needs you satisfy) is addressed by Quality Function Deployment (QFD), which in the form of the “House of Quality” provides a systematic way of presenting, analysing and prioritising their relationships (Hauser and Clausing, 1988; Oakland, 1993). However, according to Zairi and Youssef (1995) it has been applied mainly in the design of products rather than in the management of supporting services. It is also evidently only applied to the representation of product design requirements for customers, and has not been extended to substantially address the broader requirements of stakeholders generally. While some stakeholder groups (e.g. community) may be relatively unaffected directly by product designs, nevertheless it should be possible to construct a set of factors that affect their satisfaction (or dissatisfaction) with the organisation. In principle it should be possible to develop this as a house of quality relating such factors to organisational activities. However, in reconciling a number of “houses of quality” into a composite performance management structure which balances all the stakeholder groups could prove unfeasibly complicated.

Tvorik and McGivern (1997) discuss the relationship between capabilities and competitive advantage, and the differing benefits of mechanistic and organic structuring in relation to particular markets and competitive environments. They propose that it is necessary to identify the determinants of a firm’s performance, and align them with distinctive competencies, which implies that it is the task of
management to determine, by observing the environment and the existing capabilities of the organisation, an appropriate structure, not just for the organisation’s resources but for its measures of performance.

4.5 INTERNAL STRUCTURE

Imai (1986) points out that cross-functional and process-based structuring had been an established pattern in the most successful Japanese companies for the preceding 30 years, but was still being resisted by the individual-as-competitor culture of the West. However, in defence of functional structures in organisations, Hatten and Rosenthal (1999) point out that any lack of focus on customer requirements is not so much due to structural limitations as to old-fashioned commitment to departmental objectives. In other words, customer-related performance needs to be based on an awareness and commitment to the values of the customers. They use this viewpoint to explain why business process engineering (Hammer, 1990 and 2001, and Hammer and Champey, 2001) was often less than successful: it approached organisational structure mechanistically and failed to deploy the knowledge and creativity of the people which could otherwise provide the flexibility needed to satisfy customers.

Womack and Jones (1994, 1996) advocate a cross-functional management structure in order to overcome inefficiencies associated with compartmentalised departments. However, they also address the problem of losing specialist skills if functional departments are abandoned altogether, and of isolating people from a clear and motivating career path. Hatten and Rosenthal (1999) agree that for an organisation to learn and apply that learning competitively it has to retain functional departments as centres of excellence which underpin process-structured value streams. From this it seems that, aside from the determination of overall strategy, there is a need for managers to address, and perhaps specialise in, the separate issues of technical excellence and process efficiency, either of which may represent a factor leading to competitive advantage. It also complements the views
of Prahalad and Hamel (1990) who suggested that, for long term prosperity and competitive advantage, core competencies need to be identified, separated from the product lines, and protected as valuable assets of the organisation.

4.6 CONCLUSIONS FROM THE LITERATURE ON STRATEGY

Strategy can be considered as either a two-stage process or two separate processes. Either way it is necessary to distinguish general strategy from implementation or tactics. But having made that clarification, it is important that the two elements are co-ordinated. Thus, on the one hand the general strategy must be aware of and responsive to the resources and limitations of the organisations, and on the other hand the implementation must be aware of and responsive to the general strategy.

This can also be represented as the link between strategy formulation and deployment, which is required to establish effective communication, feedback and responsiveness to the need for realignment. In this regard there needs to be a strong relationship between operational activity and required achievement, of which the latter depends on a clear definition of value in the context of the organisation and its overall purpose. These issues are found to connect with stakeholders as beneficiaries, either in the strategic process itself or in its formal prerequisites.

The strategy formulation process also needs to focus on the creation of value by the organisation. This requires that the nature of value is clearly defined, and that the implementation of strategy focuses the available resources accordingly (including stakeholders where they are considered as resources rather than beneficiaries). There is a danger that if the purpose of strategy is to support short-term financial measures, then when the principles are applied to non-commercial organisations there is a vacuum in place of the organisation's value objectives. Therefore, stakeholders as beneficiaries may be considered in the strategic process but, if not, they need to be considered as part of the mission, which is a
prerequisite for strategy formulation. In this light, effective strategy, one way or another, forms part of a system that needs to express stakeholder-related performance as organisational targets.

Further conclusions arising from the literature review as a whole, as well as the research implications, are discussed at the end of chapter 5.
CHAPTER 5

LITERATURE REVIEW OF MODELS AND MODELLING

This is the last of four chapters constituting the literature review. It starts a new thread, which concerns the nature of models and modelling, and which is the second principal theme of this thesis, as represented in the title.

The review starts by looking at the definition of models and the accepted model types. Then the methods of modelling and the purposes of models are examined, followed by some of the issues related to validation. Popular management models (the Balanced Scorecard, the EFQM Excellence Model and Quality Function Deployment) are then examined in relation to modelling concepts. Key concepts related to these topics are then collected and summarised in order to provide a sound theoretical basis for the development of a stakeholder-related model. The chapter concludes with an overall review of the literature, which refers back to chapters 2-4, and research implications.

In comparing and connecting the ideas expressed in the literature it is found that existing popular models are not only limited in their ability to measure non-financial aspects of organisational performance, but do not meet the theoretical requirements of a rigorous modelling system. It is shown that a stakeholder-based model offers a meaningful and flexible framework for the effective measurement of organisational process performance, and the necessary theoretical concepts underlying its development are specified.
5.1 INTRODUCTION

This thesis aims to present an organisational performance model that is founded on the principle of using stakeholders as the basis of performance measurement. Issues related to performance measurement, and stakeholders have been examined in the literature reviews of chapters 2-4, so this chapter addresses the principal remaining area, which concerns the theory and practice of modelling.

The review is divided into three key areas related to the theory of models and modelling. Firstly, a number of definitions of models and types of models are examined and compared to gain some insight into how models are defined. Secondly, the methods and purposes of models are so closely interconnected that it was not considered helpful to separate them, so they are presented as a combined review. A number of issues are examined in order to establish relevant concepts and priorities which should be considered when developing a new model. Thirdly, as validation is considered to be sufficiently important to be considered as a topic in its own right, it is considered in relation to comparable concepts in the methodology of research. This looks forward to chapter 7 of this thesis.

5.2 DEFINITIONS AND TYPES OF MODELS

Asch and Kaye (1996, p15) provide perhaps the shortest definition of a model, and the least constraining, as “a representation of reality”. But others try to be more specific. Thus, Gillan (1999, chapter 2) contends that “Models are simplified representations of reality”, while Curtis, Kellner and Over (1992) elaborate on the same basic principle with “an abstract representation of reality that excludes much of the world’s infinite detail”. Meanwhile Oakshott (1997, chapter 2) drawing attention to the systematic relevance that a model may have to an organisation, defines a model as “a simplified representation of a system where a system refers to any collection of objects or processes that interact in some way”. While these basic definitions set out a fundamental axiom, none of them indicate what form a
model might take, or how it might be devised. Wilson (2001) offers a more abstract view: “models (of any kind) are not descriptions of the real world - they are descriptions of ways of thinking about the real world”.

Some other definitions, related to organisations or management, attempt to combine form and function. Knopfel et al. (2005) offer “a model is an abstraction of an existing or planned system which comprises only those aspects which are relevant to its purpose”. This, without being specific as to the purpose, at least recognises that there should be one. Pidd (1999) defines a model of management systems in a way that more specifically defines its purpose, as “an external and explicit representation of part of reality as seen by the people who wish to use that model to understand, to change, to manage and to control that part of reality in some way or other”. Wortmann et al. (2001) provide another definition which is more specific in regard to its usage: “models, as descriptions of a product or enterprise, are used to support decision-making on the design, production or implementation, maintenance and change of a product, an enterprise, or its information systems”. Koubarakis and Plexousakis (1999), however, mention the purposes of the organisation and bring in the concept of using a model for communication, rather than just for calculation by defining an enterprise model as “a description of the main constituents, purpose, processes etc. of an organisation and how they relate to each other A model can be used to develop understanding and provide a means of communicating it.”

As regards types of models, Oakshott (1997) classifies them into either physical or symbolic. The latter are further classified into several possibilities. They may be visual but non-mathematical (such as graphs, circuit diagrams and maps), or may be mathematical (containing precise numerical and/or logical relationships). Depending on whether time is a significant independent variable, a model may be static (representing a stable or unchanging situation), or dynamic (representing the constructs that relate to change). A model may also be discrete (where any variable is considered in steps or as snapshots), or continuous (where any intermediate state
can be represented). Finally, there is the option of a deterministic model (where the parameters are analytic and can be precisely calculated) or stochastic (where the variables are statistical, and governed by probabilities). Where a model is stochastic, or where the analytic complexity is too great in a deterministic model, simulation can be used. This involves generating data sets using random or pseudo-random values (e.g. the Monte Carlo method: Oakshott 1997, p126), and is used for modelling such things as traffic flows and queuing systems. Evans (2003 p115) considers the relative merits of simulation and analysis: analysis should get the most reliable output, but can be intractable, so simulation using data samples should then be used.

Asch and Kaye (1996) classify models as either physical or abstract, the latter being synonymous with “symbolic” as used by Oakshott(1997). They then define three possible options. Simulation, being a “what-if” model showing how a system would behave under given situations; optimising, used in complex situations; and forecasting, used to project analysis into the future. The use of the word “simulation” here is intended to apply to analytic models and is not the term generally adopted by modellers - the terms symbolic, mathematical or descriptive are more widely adopted for this category. The use of the term “optimising” in this context is intended to apply to non-deterministic or stochastic models where the situation needs to use simulation techniques; so this category would be better described as simulation. The third category, forecasting, is more related to the purpose than the form of the model.

Gillan (1999) offers a different perspective, classifying models as either structural, using sketches or scale replicas, or process, showing the behaviour of a system. Here, the term “structural” includes the physical and symbolic categories used by Oakshott (1997), but separates out processes as a form of dynamic. He offers another dimension to models which is related to the stages of development. Thus, a model would initially be “generic”, where it is symbolic and unquantified; it
becomes a "particular" model when data is applied. In regard to generic models, a "paradigm" is described as an example of a model that has withstood challenges and is accepted as accurate, such as the laws of physics. This two-stage concept is supported by Wilson (2001), who considers that there are two parts to a model: structure (an encapsulation or simplification of some aspects of reality that represents significant parameters or constructs physically or conceptually) and analysis (where sample data is manipulated to provide a link between reality and the model constructs).

5.3 METHODS AND PURPOSES

A business process model, according to Busby and Williams (1993), is concerned with the processes of an organisation rather than the detailed activities. This implies that business process models are strictly teleological, and cannot be designed without a clear understanding of the required outcomes, or at least the ontology of the required outcomes. Thus, if the performance of an organisation is to be modelled, it is first necessary to be clear about what is meant by "performance". Subjectivity can be an important issue. This arises partly from the modeller's pre-conceived view on what should or should not be represented in the model, and partly from the possibly subjective resolution of conflicting input. The danger is that if the model depends on constructs that are subjectively valued, the perceived validity of the model can be compromised and its objectives not met either as a learning process or as a decision support system. It is pointed out that "the more obvious the conclusions to be drawn the more likely it is that something will be done about any problems", which supports the comprehensibility requirement of Willemain (1994). They also point out that there is no constant aiming point, so no matter how well the organisation optimises its activities at any time, it has to continually change. This implies that the measures and measurement methods also have to be continually re-evaluated.
In relation to modelling methods, Knopfel et al. (2005) offer three options for iterative development. Firstly they consider a model as a form of organisational learning tool, where the model is initially known to be incomplete and based on what is known, and is then refined iteratively by exposure to knowledgeable people. By this means the model improves as an explicit representation of expert knowledge, and by experimentation and verification also develops the knowledge of the experts. Then they consider a model as a communication or teaching tool for modelling technique or application, where diagrams are used to explain the required concepts; the model, as a teaching aid, is then improved by iteration in response to feedback on comprehensibility. Finally they consider decision support, where models are used to represent concepts in a dialectic process, for example in deciding how to represent the modelled system.

According to Morris (1966), modelling requires a clear conceptual structure of the situation to be modelled, and the modelling method may take several different forms. A simple model may be used as the initial form, which is then enriched or elaborated laterally to cope with real-life complications; pre-existing logical structures or analytical techniques can be used as the basis for an analogy, which can then be elaborated; an experimental, iterative method uses an initially simple model which is developed vertically by a trial and learning process in which the accuracy of the model is refined. He warns that a model based on over-simplified assumptions may be tractable but is also likely to be inefficient; while over-elaborate assumptions lead to an intractable model. There are several characteristics of models that he regards as important, in particular: transparency of deduction (which relates to the confidence in the outputs), robustness to cope with variations, and ease of refinement.

The iterative development strategy is supported by Blockley (1999) in which reflective practice is considered as a modelling strategy. A feedback loop is described, encompassing four elements: “world” (used in the sense of the total relevant environment), perception, reflection, and action (which leads back to
“world”). In this context, the process of reflection may be simply reactive or it may be a conscious exercise in problem-solving with subtle and conflicting constraints. Reflection also needs to consider the position of the operator – how much the result may depend on the individual.

While the management standard ISO9001:2000 (2000), the environmental management standard ISO14001:2004 (2004) and the information security standard ISO27001:2005 (2005) do not claim to be models (being more in the form of agenda), they have certain characteristics of symbolic models, namely a formal, abstract structure representing key features of an organisation, and the ability to support decisions and communication. However, they add a new dimension, which is that they include within themselves a feedback and review mechanism, supported by formal audits, which ensures that the model is applied effectively and keeps pace with the need for organisational change. This mechanism is autonomic rather than externally applied, and is presented in the introductory sections of the standards as a fundamentally important part of the concept of these standards. Therefore, while iteration has been considered in the literature as an important part of a model development, it can be seen that autonomic review and continual improvement is a feasible and potentially important feature of a management model.

5.4 REQUIREMENTS

In the context of telecoms systems, Evans (2003, p111 et seq.) offers some insights into why models are of value as an alternative to other problem-solving methods.

- Size – where it is impractical to build a live system in the required scale for trial.
- Speed – where a live system may be impractical to monitor at the required data rate.
- Novelty – the proposed system has not been concept-proved, and the required monitoring tools are not yet available.
• Detail – internal processes may not be accessible.
• Critical – live measurement may be intrusive and add unacceptable risk, or may lead to insecurity.
• Speculative – conditions can be modelled that are rare but significant in real life.
• Time-frame – this can be condensed, shortening the product/process development time.

Colquhoun, Baines and Crossley (1996), in relation to preparing organisational models for implementing Business Process Reengineering (BPR), find that several requirements are particularly important. The model must be relevant to its intended purpose; the intended participants need to be involved in its design so their operational needs are represented; it must be simple enough to use for communication between modellers and participants; and it must be capable of representing complex (realistic) information, and able to offer predictive analysis.

Ackoff (1981) defines an organisational modelling problem as “a situation in which three conditions are satisfied: first, a decision-making individual or group has alternative courses of action available; second, the choice they make can have a significant effect on them; and third, the decision-maker or makers have some doubt as to which alternative should be selected”. For a model that supports continual organisational improvement this implies that the outputs of the model are used to determine process changes; for a model that supports strategic awareness it implies that discontinuities between strategy and performance are identified so that they can be corrected. In the context of planning, the requirement to satisfy stakeholders is mentioned, but there is no guidance on what the stakeholders are, or how to identify their needs as constructs within a model.
5.5 VALIDATION

In the context of Operational Research, Willemain (1994) considers that model validation is an oft-neglected part of model design. Particular attention is drawn to usability and comprehensibility of the model outputs as significant factors. He does not discuss in detail what is meant by usability or how it might be tested, so the issue of validation is not much clarified.

Evans (2003) considers validation as ensuring that the modelled operation is correctly represented. This relates to the constructs, variables and relationships, where the modeller is exhorted to take care to ensure the simplifications are valid and the underlying assumptions are valid. This specifically represents construct validity, as discussed in the research methodology of chapter 7, and does not address the issues of content or predictive validity. In other words, the problem of analysing the model reflectively is not addressed.

Checkland (1995) considers standard scientific practice as an exemplar of model validation, pointing to the mapping of the model to reality, and the usefulness of the model as a surrogate for reality. Analogously, he considers the need to publicly (i.e. repeatably) demonstrate the accuracy of that mapping by running it on test data (e.g. historical figures) before adoption as an organisational tool. But this can be infeasible in "soft systems" (those involving the behaviour of people) because of the variety of unknowns. Therefore they are more concerned with the learning process represented by the model, and support an iterative development cycle similar to that described by Blockley (1999). The concept of validation in soft systems therefore applies not so much to the reality represented by the model, but whether the model provides an effective vehicle for learning about the stated epistemological and ontological issues. However, this seems to avoid the issue of reflection in regard to content or predictive validity.
Morris (1966), in the context of teaching modelling, supports the evolutionary process, and indicates that it can progress iteratively using alternating inductive and deductive methods. Thus, validity tests coupled with creative input can be described as an inductive method; and reappraisal of the underlying theory to develop the modelling assumptions can form the deductive method. The latter tests the theory to ensure that it is tractable and that the modelling requirements have not become unmanageable (i.e. whether the model can be made to work). The inductive process leads progressively towards a more complicated model, while the deductive process leads to simplification, or at least a limit to the complexity. Where existing models, or components thereof, are used in the design of a new model, this is not unlike the techniques used commonly by mathematicians, where an equation is rearranged so that it can be resolved in parts using established methods (Riley et al., 2000, chapter 1). The issue here is that organisational models are not defined in formal, algebraic notation, so it becomes more of a necessity to discuss the relevance of established modelling constructs and be convinced that they are applicable.

These various definitions provide different but not incompatible insights into the nature and criteria for the evaluation of models. Taken together, the key points can be presented in two groups. Firstly, the purpose of a model can be defined in terms of:

- Decision support
- Simplification and clarification
- Communication
- Predictive capability

Secondly, the attributes of a model can be defined in terms of:

- Scope and clarity of application
- Trustworthiness (transparency of operation)
5.6 POPULAR MANAGEMENT MODELS

There are several popular management models in use, of which the Balanced Scorecard and the EFQM Excellence Model are relevant to this thesis. These models are designed for different purposes, and cannot therefore be directly compared with each other to determine which is "best". However they can be separately evaluated against the above criteria in the context of representing organisational performance. Other models, including Michael Porter's Value Chain (Porter, 1985) are focussed on particular operational issues, as are Kaizen (Imai, 1986 and 1997) and Lean (Womack and Jones, 1994 and 1996). While Quality Function Deployment (QFD) (Oakland, 1993) is aimed at a comparatively narrow field of operational issues, there are nevertheless structural considerations in the design of the model that could be considered in a broader modelling context. Therefore only three models are discussed in detail here.

5.6.1 The Balanced Scorecard

The Balanced Scorecard (Kaplan and Norton 1992,1996a,1996b) "provides executives with a comprehensive framework that translates a company's strategic objectives into a coherent set of performance measures". The scope of the model is predicated on internal financial measures such as cash flow, and is then further developed by defining customer requirements. Both of these are limiting and fail, for example, to consider with similar priority issues related to environment, community, staff, suppliers and other stakeholders. When the model is implemented using strategic mapping (a process in which the financial objectives
are sublimated into customer objectives, and then into process requirements, and finally into development requirements), everything is focussed on financial achievements, which does not overcome the problems related to financial short-termism that were discussed in chapter 2.

The model is partially transparent in that the components are clearly related, but the relationships between them are not (as a requirement of the model) quantified. This leaves an opening for subjective influences that would lead to priority evaluations that are not clearly justified in the model; this weakness in transparency may lead to decisions that remain the objects of dispute and lack of required commitment. In relation to inclusiveness, the model is intended to be implemented by senior executives, whose knowledge of the operational processes and capabilities of the human and other resources will necessarily be limited. This model does not therefore overcome the potential disconnection between strategy formulation and operational activity, which is discussed in chapter 4. The clarity of presentation of a strategic map can be something of a problem, with a complex maze of interconnections, but with care the presentation can be rearranged comprehensibly, and perhaps divided into a series of diagrams. However, in dealing with real-life complications, the model is not easily scalable. In other words if the model is to be extended to take into account additional factors, it is not as simple as adding things to a list – they have to be linked in to the structure, and introduce greater complications. Also, the problem of connecting individual targets with organisational objectives is shown by McAdam and O’Neill (1999) in a case study in which the Balanced Scorecard and the EFQM models are used to implement TQM.

There is a real danger that for the model to be comprehensible and manageable, it has to be simplified to such an extent that it becomes crippled, especially when relating it to the details of the operational processes on which the whole performance structure necessarily depends. Van der Woerd and van den Brink (2004) find that a maximum of five topics for each of the four perspectives is a
manageable maximum, and this can present “a major challenge” in deciding which to select.

In relation to the potential for improvement or refinement, the amount of effort needed to construct the model is such that it can not reasonably be attempted more than a few times in a year, and (by discussion with training providers) in many cases is only conducted annually. The model does not provide for an autonomic review and continual improvement cycle so, if the organisational objectives or operating constraints should change, there appears to be no provision for this to be identified and resolved within the implementation of the model. While a decision could be taken to reconstruct the model at any time, this lack of inbuilt recursion can be seen to show a potential weakness in responding to changing circumstances and opportunities. Experience indicates that this may result in ad-hoc changes taking place which cause the implemented structure to diverge from the model, leading to confusion and dispute. Cullen et al (2003) point out the need for the model to form part of a continual review process, but conclude with the observation that more work is required to find a way of applying the model in the context of higher education. The review of the model by Norreklit (2000), discussed in chapter 2, also indicates that the model is limited in respect of feedback, robustness and inclusiveness.

It is to be expected that the authors and their supporters will make the most of successful case histories, but there is no reliable survey and analysis of the rates of success and failure in implementing the model. Such a survey may not be easy, as those who have failed to implement the model satisfactorily may not be inclined to advertise the fact. An indication could be obtained by surveying all the organisations that have been represented on training courses, and to determine their outcomes after five years. However the training bodies may be reluctant to expose the results if they are not favourable, they may not have collected the required post-training data, and they may not wish to reveal their customer list for
independent survey. These considerations can be expected to compromise the reliability of the data and distort the analysis.

5.6.2 The EFQM Excellence Model

The EFQM Excellence Model (European Foundation for Quality Management, 1992) "is a practical tool to help organisations [establish an appropriate management system] by measuring where they are on the path to Excellence; helping them understand the gaps; and then stimulating solutions". The model comprises nine measurement criteria. Of these, five (leadership, people, policy and strategy, partnerships and resources, and processes) are classed as enablers as they cover what an organisation does. The other four (people results, customer results, society results and key performance results) are classed as results as they cover what an organisation achieves.

If the model is rotated anti-clockwise, putting key performance results at the top, it takes on a similar appearance to the strategic mapping of the Balanced Scorecard. However, it specifically requires attention to stakeholders other than customers (people and society are required results criteria, although partnerships are only given as enablers) and, while financial measures do feature prominently in the recommended sub-criteria, it does not specify that the key performance results are necessarily entirely financial. Garvare and Isaksson (2001) offer an adapted version of the model, which includes sustainability criteria, but while, for internal assessment purposes this might be feasible, it is not a design feature of the model architecture that the nine core criteria (or sub-criteria) are intended to be changed.

In terms of scope the model addresses the issue of relating strategic requirements to operational processes and performance through the intermediary of stakeholders. In terms of transparency, the model assigns percentage scores to the nine criteria, which are further divided into 32 sub-criteria. This clarifies the manner in which the overall score is calculated, which would seem to overcome the apparently monistic (single-valued) overall performance metric. However,
within the sub-criteria the breakdown of measures and indicators is not clearly quantified so, given a relevant set of measures in any of these, the perception of performance could still lack clarity over values and priorities.

The presentation of the model is straightforward and clear. Each of the nine criteria is accompanied by a list of measures and indicators and are scored accordingly to arrive at a total. However, in the examples offered in the official publication the measures and indicators are presented as separate lists without any clear structural connection. For the evaluation of performance to be clearly related to the indicators, it would be necessary to establish a quantified relationship between these elements.

The description of the model does not require that it is constructed with the active involvement of all those affected, although this is implied in the deployment element of the RADAR (Results, Approach, Deployment, Assessment and Review) implementation logic (European Foundation for Quality Management, 1992). It might be assumed also that the assessment and review elements imply participation at operational level, but in a command-and-control culture the model could be implemented without necessarily involving people at that level. While involvement and empowerment are shown as measures in the people criterion, this is concerned with operational performance and is not necessarily related to the development of the model itself.

The model, consisting of comparatively simple lists of measures and indicators, is easily extended to cope with new or changing requirements. It is therefore readily scalable without the complications that occur when a model attempts to incorporate interactions between components. However, in the light of a lack of quantified relationships between sub-criteria, measures and indicators, this scalability has been achieved by sidestepping important considerations.
In relation to improvement and refinement the model is presented as a system of performance assessment that is conducted at occasional intervals, perhaps annually. Therefore, while it can be useful as a consistent framework for the evaluation of progress towards Excellence, it is not intended as a system of performance measurement that responds rapidly to changing strategic or operational requirements. In this respect this model suffers similar limitations to the Balanced Scorecard. Also, it is not intended primarily as a system for measuring organisational performance against short and long term criteria, but as a framework for measuring organisational methods and structures. This view is supported by McAdam and O’Neill (1999).

It is conceivable that while a good score could be obtained for the implementation of the model, the system may still be unresponsive to change or the measures may be misunderstood or misapplied. Then the performance of the organisation may not match that of the model (Kaplan and Norton 1996b, pp150-151). It brings to mind the apocryphal statement by a surgeon: “the operation was a great success, but the patient died”.

5.6.3 QFD

In terms of scope the most obvious limitation is indicated in the adopted by-line “the voice of the customer”, but the model makes it clear that this is what it is for, and therefore it should not be vulnerable to misapplication. As regards transparency, the “house of quality”, which is the core of the model, focuses on a clear and quantified tabular representation of customers’ requirements and the internal processes that are intended to meet them. While the examples in the literature are focussed on product design attributes, there is no apparent restriction on the use of the model to represent service and support aspects of customer relationships (Gerst, 2004).

The table of relationships is quantified, although the model does not specifically demand any particular scale of values; a crude scale of high-medium-low can be
used, or a finer gradation if appropriate. The model also includes column and row arithmetic to permit the computation of overall scores and the assessment of the importance of the product-process relationships; this is an important feature as it is intended to be used to focus organisational energies on the most important issues. In this sense, the model is very clear in its representation and the interpretation of the results. The arithmetic methodology is, however, very limited, being confined to the sum of factored elements. This does not, for example, allow for non-linear relationships, "must have at all cost" restrictions, or for representing rates of improvement (where it is required to make some progress towards improving a product feature without necessarily requiring perfect compliance). These considerations are not of great importance in the limited scope of the model, but if the same model were to be applied to the broader context of a range of stakeholder values, then these limitations would render it untenable in its present form. For example, if there were a requirement to establish an environmental performance by recycling waste materials, this model is not designed to represent the need to get as close as is economically feasible to a specified target, and to accept that a compromise is permissible, within defined limits. Therefore, while the model illustrates a useful strategy for computation of values, it is not designed to be applied to areas where the mathematical relationships need to be more complicated, or where requirements are represented by improvement factors.

The model is intended as a once-only method of interpreting design characteristics before committing the design and production processes. While evaluation and improvement of the modelling technique is not an inbuilt feature of the modelling method, QFD is not intended as a strategic evaluation mechanism, and it would be unfair to criticise it on the basis of improvement potential or autonomic review. Scalability can, however, be a problem, as the size of the core table is theoretically bounded only by the product of the number of features and the number of processes, and this can be considerable. This is overcome by having a hierarchical structure of tables, in which a top-level table expresses generalised requirements while other tables express details of enabling areas (Gerst, 2004; Hauser and
Clausing, 1988). However, this can lead to lack of clarity when the overall optimum design targets depend on compromises that transcend boundaries between subsidiary tables and the avoidance or mitigation of this weakness is not discussed adequately in the literature. Such transcendental compromises may be associated, for example, with financial or other shared resource limitations.

Another weakness, in the context of applying the precepts of this model to a broader range of organisational issues, is the apparent assumption that the indicators representing validation of the design and verification of the products are obvious from the expression of the design features in the model (e.g. “car doors must close easily”). The relationships between requirements, measures and indicators are not so obvious in the broader organisational performance context, which means that, if clarity and transparency are to be preserved, they need to be specified in detail. The EFQM Excellence model provides some useful guidance in this respect.

A particularly important feature of QFD is the requirement to refer back to the customer when determining the features and values to be represented in the model. In more general terms this feature encourages the establishment of a clear and transparent relationship between internal processes and priorities, and externally determined requirements. As a general methodology it therefore illustrates an effective alternative to that of determining performance requirements on the basis of assumed values derived from internal measures.

5.7 CONCLUSIONS FROM THE LITERATURE ON MODELS

The two popular models that connect overall organisational values with operational performance (the Balanced Scorecard and the EFQM Excellence Model) are both flawed in relation to the criteria for evaluating models for this purpose. The EFQM Excellence Model comes closer, but suffers several important weaknesses: it is not sufficiently responsive, it is not sufficiently transparent, it is
aimed to measure the performance of management rather than that of the organisation, and it does not require participation at operational level in the design of the model.

Several other models exist which correlate or tabulate the relationships between customer requirements and operational capabilities, of which perhaps the most extensive and widely used is Quality Function Deployment (QFD). This has been further developed in the form of a continual improvement loop as Hoshin Kanri. But these models tend to be focused on products and customers and do not in their present form constitute a model that can encompass a broader variety of stakeholders, or a means of representing overall organisational values. Nevertheless, this review has discovered some important features of QFD that could be usefully adopted in other models.

The literature therefore indicates that there is a need for a more suitable model to represent the determination and deployment of organisational strategic values. The two most popular models, the Balanced Scorecard and the EFQM Excellence Model are both eventually focussed on financial results, and therefore represent an attempt to correct the deficiencies of a traditional financial performance model by extending it. An alternative approach should be considered, one that starts again from first principles and derives the financial “perspective” as part of a much broader foundation of relationships and associated performance requirements. The literature shows that such a model could be based on a more transparently comprehensive evaluation of organisational relationships derived from stakeholder requirements This approach would also need to take into account the criteria for evaluating organisational models; this review has provided some guidance on those criteria and how they apply to existing popular models.
In developing a new model, there are several theoretical aspects that need to be addressed. In particular it is necessary to be clear about what sort of model it is – for example, whether it is to be conceptual or mathematical, static or dynamic, discrete or continuous, deterministic or stochastic. The purpose of the model needs to be made clear, in terms of the role it is intended to perform in the management of an organisation. And it is necessary to consider the validity of the model (issues related to content, construct and predictive validity, as applicable according to its intended use).

These aspects need to be addressed as part of the theoretical design of the model, and to this end they are explored in more detail in the methodology of chapter 7 (section 7.7.4). At that point the approach adopted by this research is discussed, categorised and presented; this then forms the foundation of the model conceptual development presented in chapters 10 and 11.
This chapter starts by summarising key points taken from the literature reviews of chapters 2-5, drawing together the various threads from the literature. It is proposed that a more effective organisational performance model can be defined which combines the principles of stakeholders and general modelling principles. Research implications of the literature review are discussed, offering a basis for the hypotheses presented in this chapter and context for the subsequent chapters of this thesis.

The conclusions and research implications of the literature review indicate that it would be desirable to define and measure the performance of organisations using a scorecard based on stakeholder groups and their relationships. However, this requires that a manageable set of stakeholder groups can be defined which represents all the interested parties for a wide variety of different organisations. It is also required that such a set of stakeholder groups can be used to define the interests or expectations of stakeholders, which can then be used as the basis for a comprehensive measure of the performance of an organisation.

If the stakeholder-based framework is to be used as part of an overall performance measurement and improvement cycle, it has to allow organisational strategy to be expressed in terms that clearly relate to operational performance measures. It is shown in the research implications of the literature review that it is desirable to construct a stakeholder-based model which can represent and analyse the relationships between strategic requirements, operational processes and operational performance measures.
These issues are discussed and presented in the form of hypotheses. The hypotheses are framed in terms that can be tested by field research and developed as a performance model which represents the connection between organisational strategy, organisational performance and operational processes. The field research is presented in chapters 8 and 9, and the development of a performance model is pursued in chapters 10 and 11.
6.1 INTRODUCTION

Five hypotheses are presented in this chapter. They develop the concepts reviewed in chapters 2-5, and for which research implications were presented. Each hypothesis is stated and explained in a separate section of this chapter, with reference to the research objectives presented in chapter 1. Their research implications are reviewed at the end.

6.2 OVERALL CONCLUSIONS FROM THE LITERATURE

Strategy takes time to implement, not only in the development of products and services, but in the development of processes. These are necessary steps in the route to satisfying stakeholders, and therefore to the eventual achievement of “bottom line” results. This is a reason why monitoring financial results provides such a poor predictive performance. However, a management model which monitors all the stakeholders as part of a structured analytical process could provide a predictive capability through the early and systematic identification of problems and opportunities, and thus support a pre-emptive and creative agility at all levels.

If the performance of an organisation is to be measured in terms that are compatible with and supportive of strategic decisions then it needs a system of measurement which can be applied to the organisation as a whole, is timely, is reliable, is adaptable to suit the various and changing needs of the organisation, and can be made part of an improvement programme which connects with the operational processes. It is apparent that neither financial results nor a general statement of mission satisfy these needs. The former provides a very precise system of measurements, but does not seem to be measuring the right things at the right time; while the latter potentially offers a relevant selection of values to measure, but doesn’t (in the usual manner of their expression) provide a sound basis for the measurements. In a manner of
speaking, one focuses on reliability at the expense of validity, while the other may be
valid but offers no support for reliability.

Classifying stakeholders into groups offers a way of characterising their interests, and
this can lead to a much broader scorecard for measuring effective organisational
performance. While there is no accepted normative standard on how a comprehensive
set of groups can be constructed, there is a broad range of views from which an initial
set can be put together. Taking all these views into account, such a scorecard should
be able to transcend the boundaries of private, public and not-for-profit sectors, and
thereby offer a structure for performance measurement that can be standardised
across all organisations. However, in constructing a list of groups there are some
other issues that need to be accounted for, as follows.

It has to be recognised that individual stakeholders might be represented by several
groups, possibly with conflicting interests, and this might complicate certain
analytical processes such as data collection and analysis of satisfaction surveys. There
is also some disagreement over what groups should be included (e.g. statutory
authorities and latent stakeholders), but so long as the list is not unmanageably long it
should be possible to include these so that the scorecard is able to represent all the
stakeholder groups that may be significant for any organisation. In recognition of the
controversial aspects of standardising stakeholder memberships, such a list would
have to be presented as a set of options rather than as mandatory elements.

For each stakeholder group the perceptions of value need to be identified so that the
scorecard can be realistically constructed to represent for any organisation those
issues which are of real importance. The particular needs of each group need to be
defined in terms that can be used to guide the collection of performance data and their
meaningful analysis. Taking into account CSR and the social and environmental
issues that it raises, there is again no comprehensive standard or legislation but each
organisation should consider the risks which are related to its particular processes.
This implies that each organisation should be free to apply its own judgement in
A Stakeholder-based Organisation Performance Model

Chapter 6

Hypotheses

respect of social and environmental performance, as well as any expectations in regard to profit, relationships with suppliers and all the other issues that have to be balanced to produce the optimum overall performance. In determining this balance it has to be recognised that there is generally a penalty for giving undue priority to one aspect where it may be at the expense of another.

There is also a danger in attempting to add up all the performance measures into one composite figure, as this may disguise weaknesses that will have an impact in the longer term. This suggests that the scorecard needs to be of a pluralistic nature in which a number of separate measures need to be kept within acceptable limits as well as in balance overall. Also, in considering performance measurement, this will be of value only if it can be compared with a strategic standard set by the organisation and that comparison analysed as part of a feedback process. This feedback loop requires that the performance measures are specified in compatible terms with the strategic requirements or expectations, otherwise there would be no valid basis for comparison.

Organisational strategy may be stratified to distinguish the general approach of the organisation to the conduct of its affairs from the details (or tactics) used to deal with operational matters. Whatever names are used it is accepted that there is a dependency between these layers: the overall strategy needs to be responsive to the operational circumstances and limitations, and the operational strategy needs to be consistent with the overall strategy.

There are a number of reasons for the failure of strategies, but chief among them is the lack of effective communication between the mechanisms used to determine strategy and the operational processes that determine the outputs of the organisation. There are examples in the literature of how weaknesses in vertical communication lead to failure in supporting this dependency, and eventually to strategic failure of the affected organisation. This is manifested in two ways. In one way, operational performance and the issues that are found to be significant at operational level are not taken into account when formulating strategy, and are not effectively reviewed to
validate the strategy once deployed. This may be compounded by the tendency to reduce the available information to numbers and statistics, thereby losing important indicators of validity. In the other way, strategy is not communicated to the operational activities in ways that permit its enactment, so the operational processes are either restricted or misdirected.

There is some debate about whether it is best to have a process-based internal structure or a departmental structure. While the former has been found to work in Japan, there are successful organisations elsewhere that still use the latter, or a mixture of the two in which core capabilities are protected and developed in specialist departments while production is managed by cross-functional teams. However, it is more important that the organisation, whichever structure it uses, is attentive to the needs of the customers and does not focus on the requirements of its internal structures for their own sake. Some attempts to develop highly efficient internal processes have been unsuccessful because they have lost sight of this principle.

The literature review on modelling indicates that existing performance models suffer from significant limitations. Being based on either financial prerequisites or customer-related quality, or process efficiency, they lack a truly comprehensive perspective related to the performance of the organisation. Neither are they fully explained in terms of the theoretical foundations of modelling, especially in relation to validity. The literature review also identifies a number of conceptual issues related to the classification and related purposes of models; these are not explored in detail in this chapter, but are deferred for rigorous development in the methodology of chapter 7. This chapter only goes so far as to propose the feasibility of a model based on the principles outlined, and thereby to stimulate the development of a methodology to address the modelling concepts.
6.3 RESEARCH IMPLICATIONS OF THE LITERATURE REVIEW

Whatever the shortfalls of financial indicators, they do at least convey the impression that they are precise. If an alternative method of defining and measuring organisational performance is to be considered without making undue sacrifices in precision, it needs to be founded on a set of constructs which can be clearly defined, and accurately and reliably measured. This implies that if stakeholders are to be used as a framework for measuring organisational performance, then that framework has to be developed by firstly identifying a comprehensive list of stakeholder groups and then identifying the significant characteristics of those groups which can define their relationships in measurable terms.

It remains to be seen whether it is realistic to prepare such a list or whether there will necessarily be such proliferation that it is rendered unmanageably bulky or complex. If it is possible for such a list to be constructed such that it can be meaningfully interpreted by a broad range of organisations, then it could also serve as a framework for comparison, but this also is not proved in the literature. Finally, if a stakeholder-based structure is to be used as a means of defining strategic performance requirements in such terms that they can be reliably correlated with performance measures and the causal factors (particularly operational processes), then a model is required that provides the necessary analytical constructs and defines the relationships between them. These research implications are addressed in chapter 6, where they are explored and presented in the form of hypotheses, and in subsequent chapters where the hypotheses are tested and the consequences explored.

Supposing that it is possible to define stakeholder groups and to establish relationships between them and their classified expectations, it remains to be determined whether they can form the basis of a performance model. Such a model would need to be defined so that there is a clear structural relationship between stakeholders and organisational performance measures. It would need to comply with established theoretical considerations of modelling (which includes clarity of purpose...
and validity), and would need to represent an improvement over existing popular models.

The foregoing summary of research implications in effect describes a sequence of proposals or assumptions. This starts with the possibility of representing stakeholders in a structure, and ends with a theoretical model that represents the performance characteristics of an organisation. These assumptions remain to be validated by research, so they are represented in the following section as research hypotheses. In each case they are described in greater detail and in terms that provide a clear basis for validation.

6.4 THE HYPOTHESES

6.4.1 Standardised stakeholder groups

The literature review of chapters 2-5 indicates that the limitations of financial measures of organisational performance may be overcome by using stakeholders and their relationships as a more comprehensive and responsive system of measurement. A number of stakeholder groups have been identified in the literature, where such groups represent not so much individual stakeholders as distinct sets of characteristics for which requirements for satisfaction can be determined.

It remains to be established that these ideas can be collected and refined into a comprehensive, formally defined list of stakeholder groups which can be applied to a wide range of organisations. Such a list would represent all those who have a legitimate interest in an organisation and, through one group or another, represent their entire legitimate interests in that organisation. While the groups need to be clearly and distinctly defined, individual stakeholders may, through their varied requirements, be represented by more than one group. This can become a particular problem if a stakeholder representing more than one group has a conflict of interests (this was discussed in chapter 3 section 3.5); it is necessary to resolve this by specifying these interests in relation to the relevant groups and carefully
distinguishing stakeholder groups from stakeholders as individuals. It is then up to the
dividual, not the organisation, to determine the appropriate balance and response
according to their perceived overall priorities as an individual. Also, there may be
stakeholders who have no direct contact with the organisation, but whose needs are to
be satisfied if the organisation is to achieve its intended purpose; these so-called
latent stakeholders must also be represented in the group structure.

From this, the first hypothesis is derived:

**Hypothesis 1.**

*A standardised list of stakeholder groups can be defined and meaningfully
interpreted and applied to all organisations.*

This hypothesis relates to objectives 1.2.1 and 1.2.2 of chapter 1.

**6.4.2 Stakeholder group prioritisation**

The requirements of the different stakeholder groups represent simultaneous demands
on the resources of the organisation. These resources can be assumed to be limited as
all resources require some sort of investment in their provision, and there would be
stakeholders who have a financial interest that would not wish to see it prejudiced.

Therefore, as the organisation is required to provide the best possible overall
performance in relation to the stakeholder groups, it can be expected that
compromises will have to be made. This is discussed in section 3.5 of chapter 3 in
relation to conflicting priorities. There is no indication in the literature that there is a
normative solution to this problem, and it can reasonably be expected that different
organisations would wish to balance the priorities between different stakeholder
groups according to their own particular, defined strategic purposes, consistent with
their vision and general expression of mission. It might also be expected that such a
balance would vary in time according to the achieved performance and circumstances, perhaps as part of a continual improvement programme.

Such a prioritisation of stakeholder requirements would allow an organisation complete freedom of purpose and activity, while providing an enduring framework within which the performance of the organisation could be defined, measured and controlled. If the priorities for each organisation can be numerically defined within a common framework it becomes possible to compare organisations. Stakeholder-related profiling would therefore allow an organisation to compare its strategic priorities with others in its operational sector, or any other defined population, while being free to adopt the tactics and operational methods best suited to its own circumstances.

Referring back to the point made in relation to hypothesis 1 regarding conflicting interests within individual stakeholders, by clearly delineating the stakeholder groups and allowing individuals to balance their own priorities, the organisation will be able to take an aggregate view. This would be, in effect, the sum of component interests expressed by a representative sample of stakeholders, and could be used to review the organisation’s priorities for optimum stakeholder satisfaction.

This leads to the second hypothesis:

**Hypothesis 2.**

Any organisation can define its strategic priorities as a profile in numerical terms related to these stakeholder groups, and be compared with others on a statistical basis.

This hypothesis relates to objective 1.2.3 of chapter 1.
6.4.3 Stakeholder group involvement

The literature on the subject of Lean indicates that the efficiency of an organisation can be substantially improved if it takes a pro-active view of its relationships in the supply chain. By having a clear understanding of productivity issues on both sides of a supply relationship, opportunities can be found to streamline transactions as they affect the supply of goods as well as supporting information. In principle there seems to be no reason why this cannot be applied to all stakeholder relationships, so it would appear to be worthwhile for organisations to promote a positive correlation between their perception of the importance of a stakeholder group and their involvement in seeking an efficient transactional relationship.

The concept of developing relationships on a completely generalised basis, drawing on the principles established for customers, leads to the third hypothesis:

Hypothesis 3.

An organisation can be expected to be more involved in seeking efficient relationships with the stakeholder groups that it perceives as being more important.

This hypothesis relates to objective 1.2.3 of chapter 1.

6.4.4 Stakeholder-related performance measures

If the performance of the organisation as a whole is to be assessed from the satisfaction of the stakeholders, then it is necessary to evaluate the perception of satisfaction of each stakeholder group, and to combine those perceptions in some way to form an overall assessment. This concept is established in relation to customer requirements in the literature related to QFD (section 5.6.3 of chapter 5) and TQM.
(section 2.3 of chapter 2), and this begs the question of whether and how similar principles can be applied on a general basis to all stakeholders. It is not suggested that the result will be a simple number, as that will suffer a similar limitation to that of financial measures, which is that its provenance is obscured. It may also be necessary to balance the interests of different stakeholder groups where they conflict in some way as process outputs (this is discussed in section 3.5 of chapter 3); separating the measures within each group would allow them to be prioritised more flexibly so that an optimum balance between the interests of the groups can be resolved instead of being forced into an exclusive choice.

However, if there is an expression of strategic focus in terms of stakeholder groups (hypothesis 2), then, if the values and related measures identified for each group are defined in analysable terms, the strategic focus becomes more than an expression of intent: it becomes a profile that can be used for comparison with measured performance. The overall evaluation of the performance of an organisation is then partly an appraisal of the strategic profile, and whether it is found to be appropriate to the nature and environment of the organisation, and partly a calculation of how closely the achieved profile matches the strategic profile. The former, even allowing for benchmarking, is more a matter of judgement than arithmetic, perhaps based on market analysis or simply the "gut feeling" of the top management, and is therefore "soft"; the latter is potentially more numeric, using formal calculations that can provide precise comparisons, and in that sense it is "hard". This does not mean that one is more important than the other – it is as important to "do the right thing" as to "do the thing right".

In relation to each stakeholder group there may be a number of different performance aspects that are required to be satisfied, and the stakeholders' overall perception of the performance of the organisation will in some way be a combined expression of their evaluation of these performance aspects. It is not to be assumed either that there is a similar number of significant performance aspects in connection with each stakeholder group, or that they have equal significance. In a similar way to strategic
profiling and performance assessment at stakeholder group level, strategic priorities and performance measures could be defined for each stakeholder group, based upon the definition of measurable performance aspects. If these performance aspects are suitably defined, they should be directly measurable, and would therefore provide a foundation for fact-based analysis.

The overall analysis of the performance of an organisation would then follow a closed loop:

- Define a strategic profile in terms of a standardised set of stakeholder groups. This forms the basis for a "soft" assessment of strategic performance, and would be subject to review in terms of suitability.
- Define a set of value profiles in terms of measurable perceived performance aspects for each stakeholder group.
- Measure the actual achievements in terms of the defined value profile of performance aspects.
- Combine these measurements to provide for each stakeholder group a set of performance assessments. These assessments could be expressed not just in terms of performance "scores" but as variations from the value profiles, and weighted according to their significance.
- Combine the stakeholder group performance assessments to provide an overall performance assessment. This assessment would be related to the overall strategic profile, and expressed, as before, not just in terms of performance "scores" but as weighted variations from the required profile. This would constitute a numerically rigorous analysis, and constitute a "hard" performance assessment.

This logical development depends on the fourth hypothesis:
Hypothesis 4.

For each stakeholder group a standardised list of satisfiers can be defined in terms that permit meaningful data collection and organisational review.

This hypothesis relates to objective 1.2.3 of chapter 1.

6.4.5 Defining an organisation - stakeholder boundary

Having proposed a model in which the stakeholders are defined as separate entities from the organisation, this implies that there is some sort of boundary which encircles and separates the organisation. This boundary may be considered as the transformation between the resources and activities of the organisation on one side, and the value perceived by the stakeholders on the other. Conceptually, this is suggested by the established methods of QFD (section 5.6.3 of chapter 5). It has nothing to do with the physical boundary represented by deliverables, although the deliverables and their manner of delivery act as a stimulus for the creation of perceived satisfaction.

This transformation is very important as it is possible to expend significant resources in providing things that are of little or no value to the stakeholders. In such a case measuring performance by output will not lead to an accurate evaluation of organisational performance, and would lead to wastage that diminishes the resources available to create satisfaction by other means. This implies that the organisation’s processes, which lead to defined outputs, need to be evaluated and reviewed not just in terms of deliverables, but in relation to an assessment of the perceived value of the deliverables and any associated factors related to the act of delivery, as discussed in relation to hypothesis 3.
This leads to the fifth hypothesis:

**Hypothesis 5.**

It is possible to define a model in which the organisation is a separate entity to the stakeholder groups, such that the boundary represents a transformation between process outputs and stakeholder values.

This hypothesis relates to objectives 1.2.4 and 1.2.5 of chapter 1.

### 6.4.6 Deployment of stakeholder-related values

The capacity of an organisation to satisfy any stakeholder group depends on the co-ordinated efforts of different parts of the organisation. Some people within the organisation will be directly interfacing with members of a stakeholder group or groups, while others will not. Also, the literature review of chapter 4 shows that there are many ways that the strategy of an organisation can become disconnected from the operational processes. Thus, the achievement of the organisational strategic performance requirements can become compromised by poor co-ordination both laterally and vertically.

The discussion in the literature related to internal structure does not convincingly indicate that a process-related structure will necessarily perform significantly better than a departmental structure. The key to best performance seems to lie in the way in which the people and supporting infrastructure collaborate to focus on the required outputs instead of local departmental indicators, which is represented in the published management standards as process management. The management standards also require a method of continual review in which the process outputs are checked against the strategic objectives.
The problem then is one of: defining and communicating performance requirements in terms of strategic objectives; defining those in ways that can be related to process output; and in measuring process outputs in such terms that they can be related to the strategic performance requirements. This, clearly, constitutes the basis of a performance review cycle.

Following from hypotheses 1-3 above, if the performance requirements of an organisation can be expressed in terms of satisfying stakeholder requirements, and the measures of performance can be used to form a continual review cycle, it then remains to determine an association between those requirements and measures, and cross-functional process structures which determine the value-adding operational characteristics of the organisation. The essential difference between this and other viewpoints of processes is that the stakeholder-related viewpoint is concerned with perceived value rather than product (or service) output. Quality Function Deployment (section 5.6.3 of chapter 3) provides a model which maps the associations between customer requirements and activities in various departments, but it does not provide the required vertical connection between the formulation of strategic objectives and operational measurements. This was revealed in the literature review of chapter 4 to be a common weakness of organisations.

The sixth hypothesis proposes a strategy for providing that connection.

**Hypothesis 6**

Based on stakeholder analysis, a model can be constructed that provides an effective analytical connection between organisational strategy and operational performance measurement.

This hypothesis relates to objective 1.2.5 of chapter 1.
6.5 CONCLUSIONS

The literature review of chapters 2-5 revealed that a stakeholder perspective could enable a more relevant structure for measuring and improving organisational performance than the established financial methods. However the literature does not provide sufficient information to establish such a framework. This chapter has addressed this limitation by developing five hypotheses based on the stakeholder literature. These hypotheses have extended the published concepts so that they form the basis for a system of representing the strategic objectives of an organisation in such terms that they can be related to operational performance measurements.

The foregoing discussion supporting the hypotheses indicates that the concept of a stakeholder-related scorecard can be logically extended to form the constructs of an analytical model. Such a model would represent the relationships between strategy, processes and performance.

6.6 RESEARCH IMPLICATIONS

The research implications are in two parts. One relates to the first four hypotheses, in which it is necessary to demonstrate that they are tenable. The other relates to the last two hypotheses and the development of an analytical model.

The first four hypotheses require to be tested through original field research. The method used for data collection, the research instrument and the method of analysis is described in chapter 8. The results and analysis of the field research are presented in chapter 9, with a discussion of the limitations related to the research method and the available sample. An analytical model that supports the last two hypotheses is presented and explained in chapters 10 and 11, together with a discussion of issues that may arise during implementation.

Peter C. Grossi
CHAPTER 7

METHODOLOGY

The topic of methodology is concerned primarily with the theoretical foundation for the overall research programme. It is complemented by additional theoretical analysis presented in chapter 8 with reference to the field research methods. This chapter is broken down for clarity into a number of sections. Sections 7.2 to 7.6 deal with the theoretical concepts that are used to describe the research assumptions (ontology, epistemology and axiology), followed by reliability, validity and research types. Each topic includes a brief discussion of the philosophical background and the interpretation offered by business research authors.

Ontology is concerned with the nature of reality, and this chapter compares the principles of the objective and subjective standpoints with a brief mention of pragmatism. Epistemology challenges assumptions about what we think we know, and compares the principles of positivism and subjectivism. Axiology concerns the perception and assignment of value. This has already been extensively discussed as one of the fundamental concerns in relation to stakeholders in the literature reviews of chapters 3 and 4, and is therefore not discussed again in great depth in this chapter. The section on research types considers the application and relative merits of the principal inference mechanisms (induction and deduction), and the classification of research types (exploratory, descriptive, analytical and predictive).

The research objectives, as presented in chapter 1, are discussed in section 7.7 with reference to these concepts. In each case the methodological foundation is established, and this forms the basis for the detailed methods presented in chapter 8 for the field research. Objectives 1.2.4 and 1.2.5 are specifically related to the development of a model, so the methodology for these objectives is developed with additional reference to the concepts presented in the literature review of chapter 5.
Chapter 7 Methodology

7.1 INTRODUCTION

Having established the basis for the research of this thesis by examining the literature and forming hypotheses, it is now necessary to define the theoretical framework that governs the remainder of the research.

This chapter starts by addressing the basic concepts of ontology, epistemology and axiology, and associated topics because these define the fundamental concepts of reality, knowledge and values. After that, the following section is concerned with types of research, considering the concept of inference and the principles of induction and deduction; these are discussed in relation to the possible types of research programme that could have been adopted. These theoretical and philosophical concepts are set out initially so that they can be later called upon to define the underlying principles of the research assumptions of this thesis.

The application of these concepts to this research is discussed after this groundwork has been presented because all these concepts are interconnected. While, for example, an objective ontology may often be associated with a positivist epistemology and an analytical or predictive type of research, this is not a required association. Each dimension of methodology needs to be considered with others in mind so as to form a consistent whole in relation to the research questions and the available opportunities to address them.

This is followed by an analysis of how it applies to this thesis, specifically with reference to the aims and objectives of this research, as presented in chapter 1. By relating the theoretical principles of methodology to the objectives of this research they are presented as the theoretical basis both for this research programme and for the design of the performance model presented in chapter 11.
Chapter 7

Methodology

7.2 ONTOLOGY

"Branch of metaphysics dealing with the nature of being" (The Concise Oxford English Dictionary, 2006).

From the perspective of management research Saunders et al. (2007, p108) and Hussey and Hussey (1997, p49) consider ontology to be the study of the nature of reality, whether it is directly observable, or whether it can only be observed and understood through interpretation by the researcher or respondents. They agree that reality can be defined in terms of subjectivism or objectivism, but Saunders et al. (2007) adds a third possibility which they call pragmatism. These are discussed in more detail below.

Encyclopaedia Britannica Online (2007) provides a more comprehensive view of this topic. The term was coined in the late 17th century, and is related to metaphysics, which is one of the four main fields of philosophy pursued by the ancient Greeks. Traditionally science has been part of ontological philosophy, and it was only in the 20th century that the philosophy of science became independent. Thus, scientific enquiry is no longer necessarily confined to the study of the nature of being.

7.2.1 Objectivism

"The tendency to emphasise what is external to or independent of the mind" (The Concise Oxford English Dictionary, 2006).

According to Encyclopaedia Britannica Online (2007) objectivism is philosophically founded on the study of an item of art or literature for the sake of the art form rather than for the value of the sentiment that it expresses. This can be interpreted to describe an interest in the structure of something rather than its symbolism or meaning. This is contrasted with existentialism, where the individual is considered to be an indivisible part of their environment and cannot be meaningfully studied in
parts or in isolation; existentialists believe that objectivists fragment, oversimplify and trivialise, and completely miss the point of what they observe. Objectivism is therefore described as physicalist, concerned only with verifiable physical observations without inferring or being influenced by considerations of meaning.

Saunders et al. (2007) and Hussey and Hussey (1997) agree that objectivism isolates the research subjects from the social entities or data. Thus managers act according to rules that isolate their personalities and personalised interpretations from their decisions.

7.2.2 Subjectivism

"Doctrine that knowledge is merely subjective and that there is no external or objective truth" (The Concise Oxford English Dictionary, 2006).

According to Encyclopaedia Britannica Online (2007) subjectivism is related to existentialism, being concerned with meaning rather than just form. Prominent 20th century scientists and philosophers supported the view that there is no easy inductive connection between observation and theory - there needs to be some creative or inspirational process that conceives the theory that accounts for the observations. However, physical laws, testable by repeated, independent observation, are not the same as subjectivist theories which are less certain and more speculative in nature. Thus, subjectivism attempts to add meaning to observations, but in doing so enters a more speculative and less easily verified domain of reality.

Saunders et al. (2007) and Hussey and Hussey (1997) agree that subjectivism considers that people act according to their perceptions, and these vary from reality. For a given situation these perceptions vary between individuals as well as in time (as people change the way they perceive something). To understand someone's actions it is necessary to understand the person's perceptions, so subjectivity can be an important ontological perspective, especially when dealing with issues that relate to personal judgement. This may apply not only to the understanding of managers'
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actions, but to the understanding of the way organisations need to respond to the perceptions of people in their environment (e.g. customers, community and other stakeholders).

7.2.3 Pragmatism

“A pragmatic attitude of policy” where pragmatic is defined: “deals with things in a way that is based on practical rather than theoretical considerations” (The Concise Oxford English Dictionary, 2006).

According to Encyclopaedia Britannica Online (2007) pragmatism is philosophically derived from the ancient Greek concept of action, and it traditionally concerns only the usefulness of ideas, rather than their meaning. This was developed in the early part of the 20th century to mean the evaluation of ideas simply in terms of their utility, without reference to doctrine or morality. It is concerned principally, if not entirely, with getting results. In the societal context pragmatism became morally discredited when it was used as the justification for politically expedient actions that had dubious ethical values. In law, pragmatism relates to a judgement that, instead of turning on precedent, is determined by balance of consequences. Pragmatism is therefore generally more concerned with expediency than reality. In relation to the polarised views of objectivism and subjectivism it can be seen not so much as a workable middle ground, but more as an inferior alternative that evades the question of reality altogether.

This conflicts with the concept of pragmatism presented by Saunders et al. (2007), where pragmatism adopts elements of both objectivism and subjectivism according to the research question. Different researchers may answer the same question different ways, so this can be seen to relate to axiology, or the researcher’s perception of the value or worth of different data collection methods and the relevance of that data to the research questions. There seems to be no reason why a research programme should not use both subjective and objective viewpoints in order to expose the
relevant issues, but by describing the mixture as pragmatism instead of keeping the two components clearly defined would appear to compromise clarity.

7.3 EPISTEMOLOGY

"The theory of knowledge, esp. with regard to its methods, and validation" (The Concise Oxford English Dictionary, 2006).

Saunders et al. (2007, p102) and Hussey and Hussey (1997, p49) agree that epistemology is the study of what constitute acceptable and valid knowledge for research. This concerns the relationship between the researcher and the subject being researched, and can be either positivist (only using objectively measurable and verifiable facts) or phenomenological (more concerned with beliefs or less clearly defined concepts, and particularly where the researcher influences the data in some way). In relation to business research Hussey and Hussey (1997, p54) describe the choice of epistemology as the "research paradigm".

According to Encyclopaedia Britannica Online (2007), epistemology is concerned with the nature, origin and limits of human knowledge. The history of epistemology dates back to the ancient, pre-Socratic Greek philosophers, who became concerned with why commonly accepted beliefs were unreliable. The study of the underlying mechanisms for personal convictions then became one of the four main fields of philosophy. It was proposed that because of the complexity of the world it has to be understood by constructing manageable conceptual models; these models vary in complexity and accuracy and are vulnerable to the limitations of the individual as well as anomalies (inconsistencies or gaps) in the available information.

The study of epistemology considers the meaning of analytic statements, in comparison with synthetic statements. The former are in effect a restatement of the original information; thus, increasing sales means increasing turnover, simply because of the meaning of the terms used. But to state that an increase in sales means
an increase in profits is synthetic because there is some other assumption involved (i.e. in relation to costs). These are not unrelated to the concepts of necessary propositions (always true, by definition) and contingent propositions (sometimes true, subject to other, identified if not quantified constraints).

In relation to the generation of new knowledge, tautological propositions add no new knowledge, as they can be reduced (by the application of logic) to simple restatements of the initial information. Thus, they are generally necessary and analytic. On the other hand, a significant proposition is one that adds new knowledge and is not reducible to a restatement of the initial information. It can thus be argued that, while only tautological propositions can be shown to be true, they do not add to new knowledge. But, while contingent propositions are not necessarily true, they do represent new knowledge.

In this sense, a programme of research such as this can contribute to new knowledge in either of two ways. It can demonstrate through the application of mathematics or logic that a belief previously considered to be synthetic is in fact analytic, or the other way about; or it can make a synthetic proposition based on an interpretation of available data in the context of a plausible theory. The latter cannot necessarily be proved to be true, as it may be based on incomplete data, controversial aspects of the theory, or statistics. But so long as the underlying assumptions are clear the proposition can still be of theoretical and practical value.

7.3.1 Positivism

"Recognising only that which can be scientifically verified or which is capable of logical or mathematical proof" (The Concise Oxford English Dictionary, 2006).

According to Encyclopaedia Britannica Online (2007), positivism is philosophically based on the work of Auguste Comte (1798 – 1857), and confines knowledge to the data of experience. Positivism is conceptually intended to dispel the human tendency to attribute incomprehensible experiences to either the actions of divine powers
(theology) or the manifestations of primal forces (e.g. depersonalised theology). Intellectual positivism thus takes the position that if you need to explain an experience with either of these two causes, then you have no valid explanation. In this philosophy theories intended to explain experience cannot be considered as valid or invalid, but simply as more or less useful, unless they can be confirmed by direct observation.

The epistemological concept of pragmatism (not to be confused with the ontological concept proposed by Saunders et al. (2007)) is a development of positivism that allows the validity of a theory that accurately accounts for observations, even where there may be no analytical support. Logical Positivism (aka Logical Empiricism) removes personal experience from the basis of knowledge, and requires all knowledge to be based on public experimental verification; thus, something isn’t true unless it can be verified by an independent witness.

Saunders et al. (2007, p102) offer a variant of positivism called realism, which can be divided into two types. Direct realism assumes that observation = truth; it is uncontaminated by any form of interpretation, but it can be misleading when the observer is subject to a limited perspective. Critical realism applies where observations need to be interpreted to find the truth; it recognises that the observations may be subject to limited perspective, but the interpretation may contaminate or compromise the integrity of the basic data. The latter, in effect questions the validity of the observations, rather than taking them entirely at face value. This is quite a different thing from interpretivism, discussed below.

Hussey and Hussey (1997, p54) presents the attributes of a positivist research paradigm, which are presented as tendencies rather than absolutes. The data is inclined to be quantitative, collected from a large (statistically significant) sample, specific and precise. For reasons explained later in this chapter it is inclined to have a high reliability and low validity. A positivist approach generally starts with a theory, constructs hypotheses, and seeks to test them.
7.3.2 Interpretivism or phenomenology

"The science of phenomena as distinct from that of the nature of being. An approach that concentrates on the study of consciousness and the objects of direct experience" (The Concise Oxford English Dictionary, 2006).

According to Encyclopaedia Britannica Online (2007), phenomenology is concerned with the intentionality of a person in relation to the apparent reality of their experience. Thus, it attempts to comprehend the human intervention between physical reality and the expression of perceived knowledge, and it is concerned as much with why someone believes something as it is with the belief itself. Phenomenology is therefore concerned not only with determining reality through the coloured lens of someone’s perceptions, but with the underlying forces that motivate people into seeking knowledge and embodying it into their model of reality. Phenomenology is also referred to as transcendental subjectivism.

This appears to be in contrast with the natural sciences that seek to determine knowledge by objective and systematic measurement and the application of mathematics and logic. However, from a philosophical viewpoint it attempts to challenge the underlying assumptions of the natural sciences by questioning the values that guide the scientific method. The breadth and depth of scientific knowledge is determined by people’s intentionality, i.e. what they find interesting and of value. Therefore scientific knowledge is coloured by intentionality. From this perspective it becomes as difficult to isolate phenomenology from axiology, as it is to isolate phenomenology from ontology.

Saunders et al. (2007) prefer to use the word “interpretivism”. It is considered to allow for the researched situation to be a combination of observable reality and subjective interpretation; e.g. the behaviour of people faced with a given situation. The reality is observed through a lens of interpretation either by the researcher or by the respondent and the nature of the interpretation is of interest as well as the
underlying reality. To make sense of this the researcher has to understand the perspective of the research subjects; he also needs to be empathetic in order that the respondents’ perceptions are accurately represented in the data. This epistemology can be useful in understanding how a given situation can lead to different responses or behaviour when different people are involved.

Hussey and Hussey (1997, p54) presents the attributes of a phenomenological research paradigm, and these are presented for comparison with positivism as tendencies rather than absolutes. The data is inclined to be qualitative, collected from a small (statistically insignificant) sample, subjective and rich in unstructured detail. The phenomenological approach is generally used when it is required to investigate a situation in order to construct an informed theory. For reasons explained later in this chapter it is inclined to have a low reliability and high validity.

7.4 AXIOLOGY

“The theory of values, esp. as they apply to ethics and aesthetics” (The Concise Oxford English Dictionary, 2006).

According to Encyclopaedia Britannica Online (2007), axiology was conceived in the 18th century to encompass the study of the economic worth or exchange value of something. In the 19th century it became more generalised to include morality, art etc. It then became bifurcated into considerations of instrumental (value as a means, or as part of a whole) and intrinsic (value as an end, and as a whole in itself). The philosophy admits that some things can have value in both areas. The concept of value suggests subjectivity, as objectivism does not apply any sort of interpretation to its findings. However, the process of determining value can be studied objectively.

Saunders et al. (2007, p110) and Hussey and Hussey (1997, p49) agree that axiology is concerned with judgements about value, and how the researcher’s perceptions of
value determine what is considered relevant or significant. The researcher's view of values should be made clear as one of the assumptions that affect the quality of the research and the interpretation of the findings.

7.5 RESEARCH TYPE

Saunders et al. (2007, p117) and Hussey and Hussey (1997, p10) agree that research can be categorised by method of inference and type of research. The two options for method of inference are: inductive (where a theory is constructed from data, or evidence of the particular are applied to the general) and deductive (where a theory is tested by reference to data, or a general proposition is applied to particular cases). In addition, there are several types of research programmes: exploratory, descriptive, analytical or predictive. The following expands on these concepts.

7.5.1 Inference

"Forming of conclusion from premises" (The Concise Oxford English Dictionary, 2006).

According to Encyclopaedia Britannica Online (2007), induction and deduction are two of the four principal components of inference, in which conclusions are drawn from given information using a process of reasoning. The third component of inference is the use of probability to state the likelihood of a given reality, and the fourth component uses statistics to describe the likelihood that a given object is in a given set.

In management research, while some propositions can be induced or deduced it is often necessary to use statistics in which the proposition is considered in relation to its reliability or probability. Thus, while the research approach is commonly presented in terms of induction and deduction, it should really be discussed in relation
to the broader concept of inference, which allows for all four of the processes commonly used.

7.5.2 Induction

"Inferring of general law from particular instances" (The Concise Oxford English Dictionary, 2006).

According to Encyclopaedia Britannica Online (2007), it is a logical method of reasoning from a part to a whole, from the particular to the general, or from the individual to the universal. Traditionally there was a distinction between induction and deduction drawn by logicians, but in the 20th century these became subsumed into the concept of deduction. Thus, all logic is now taken to mean deductive logic. However, in relation to methodology in the natural sciences the distinction still remains. Induction is one of the principal components of inference.

According to Saunders et al. (2007, p117) induction is concerned with understanding the relevance or meaning of a theory i.e. having a feel for the context. It is more likely to use qualitative data, and it is related to whether or why something is happening rather than attempting to define precise relationships or causality. Induction tends to be biased towards qualitative data, flexible data collection methods, smaller samples, interpretivist epistemology and is more influenced by the researcher's approach and underlying context.

7.5.3 Deduction

"Inference from general to particular" (The Concise Oxford English Dictionary, 2006).

According to Encyclopaedia Britannica Online (2007), it is logically a rigorous proof or derivation of one statement (the conclusion) from one or more statements (the premises). Deduction is one of the principal components of inference. A particular
form of deduction is the syllogism, in which there are two premises and a conclusion, thus: “if A and B, then C”; the conclusion is so stated that it is true by definition of the terms, so it can be described as epistemologically analytic. Some regard deduction to be a synonym for inference, thus including induction.

According to Saunders et al. (2007, p117) deduction starts with a theory and then tests it. It follows a sequence:

- hypothesis
- operationalise (define the variables and method of measurement)
- test
- analyse and indicate support or need for change to the hypotheses
- modify the theory or hypothesis as required
- repeat as required.

Deductive research tends to be biased towards quantitative data, more highly structured, with larger samples that are subject to statistical validity tests, and is inclined to be epistemologically positivist and factual.

### 7.5.4 Exploratory research

The purpose of this type of research is to look for patterns and to use induction to generate ideas and theories. Generally, the objective is to set a foundation for further research by offering theories and possibly hypotheses. Data collection techniques used for exploratory research include case studies and historical analysis, but others may be used. The data may be qualitative or quantitative, but is usually rich in detail because it is required to collect as much data surrounding the problem area as possible, and it is not yet entirely certain what the significant variable are.

### 7.5.5 Descriptive research

The purpose of this type of research is to describe a phenomenon as accurately and completely as possible. The research question is usually very specific, and the
required data tends to be quantitative. In some respects it is like exploratory research, but goes into more detail and draws precise conclusions using statistical analysis.

7.5.6 Analytical research

Also known as explanatory research. The purpose of this research is to discover how or why a phenomenon occurs, building on previous detailed knowledge of the characteristics of the phenomenon being studied. It is therefore concerned with causality, which requires particular care in defining and controlling where possible the dependent and independent variables.

7.5.7 Predictive research

The purpose of this research is to forecast future occurrences of a phenomenon, or its likelihood under certain circumstances. It may take data collected in one set of circumstances (e.g. a particular geographical area), develop a theory that indicates the applicability of that data to other circumstances (e.g. a different geographical area), and deduce the likelihood of the phenomenon occurring there.

7.6 RELIABILITY AND VALIDITY

While both of these are considered important, Hussey and Hussey (1997, p57) points out that there may be a trade-off between reliability and validity. To pursue high reliability it may be necessary to use a positivist epistemology to the extent that opportunities are missed to discover unforeseen factors, and construct validity is sacrificed. One solution to this (p74) offers the technique of triangulation, in which more than one method is used to cross-check the findings. The following considers these issues in more detail.
7.6.1 Reliability

According to Saunders et al. (2007, p149) reliability is concerned with repeatability by different observers, and with transparency of interpretation of the data. Threats to reliability include subject/participant error or bias, or observer error. Reliability can be tested (p366) by several means, including: test/retest (possibly at different times or with different interviewers), Cronbach alpha statistic and alternative form questionnaires (consistency between answers to different questions). Hussey and Hussey (1997, p173) offers also the split-halves method (the sample is divided randomly into two parts and the separate analyses compared). When using questionnaires for data collection it is important to ensure that the questions are posed consistently to all respondents, and that they are clear and unambiguous.

7.6.2 Validity

According to Saunders et al. (2007, p149) validity is the relevance of the research findings to the research question. Threats to validity include timing and obsolescence of data, subjects affected by the test process, untypical point or time of measurement, changes in subjects during data collection (a particular problem with longitudinal studies), changes in the environment, causal ambiguity, external validity, generalisability to population, false assumptions, and logical weakness between data, analysis and conclusions.

Three types of validity are considered (p366) in relation to data collection. Content-related validity is the coverage of the required subject area, and should take into account not only the data necessary to cover the required area of study, but any confusion that may be caused by collecting irrelevant data. Criterion-related validity (aka predictive validity) concerns whether these data accurately reflect future behaviour, which is a serious consideration for predictive research. Construct validity is related to how the data relate to the analytical constructs, especially where the
required data are unavailable and have to be inferred from available indirect or surrogate data.

### 7.7 APPLICABILITY TO THE RESEARCH OBJECTIVES

The following considers separately the objectives set out in chapter 1 section 1.2.

#### 7.7.1 Objective 1.2.1

"To identify an effective paradigm, other than financial performance, for identifying the underlying values that support the strategic intentions of organisations. This is to reflect the requirements expressed in the literature that discusses the non-financial impact of organisations."

The objective is to identify possibilities, rather than (at this stage) to consider detailed or quantified relationships. The requirement is therefore essentially exploratory, using inductive inference to provide the basis for some hypotheses that can be tested. In the literature review of chapter 2 it is found that there are significant weaknesses in the use of only financial measures in determining organisational performance, the alternative possibilities are then explored in the literature review of chapter 3. This reveals a foundation of knowledge concerning stakeholders that seems to offer promise. Ontologically there are insufficient grounds at this point to attempt to define the possibilities as an objective "reality"; in other words this is a proposed perspective rather than an absolute truth, which means that it is essentially subjective in nature.

Epistemologically, the available data is expressed in different ways by different people, each concerned with a particular type of organisation, set of circumstances or theory. This makes it rich in detail, much of which may not be relevant to this objective. Therefore it is necessary to interpret and combine the textual, unstructured data from these disparate viewpoints to compose some sort of structure. The problem
is not made easier by the tendency for a given idea to be expressed using different synonyms, so a simple text analysis is not considered to be a useful approach. Thus, the research paradigm considered most appropriate for this objective is interpretivist.

The reliability of this objective is necessarily limited by the nature of the data, and it is to be expected that different people will interpret the data in different ways. Therefore the proposed values resulting from this part of the research have to be considered as a particular interpretation rather than as the only interpretation. The context validity is related to the variety of different viewpoints that are expressed, and the range of related subject areas that are explored; for this reason the literature review of chapter 3 covers a number of subjects that are related to stakeholders, even where the term “stakeholder” is not actually used. Construct validity is concerned in this area with the interpretation of the expressions used by different people, and the correct association of those terms with the constructs derived from the textual analysis. This is vulnerable to the same weakness as reliability, in that different researchers could define different constructs and associate the data accordingly. The result of the research for this objective has to be considered as one of several valid possibilities. This objective does not attempt to be predictive, so criterion validity is not relevant here.

7.7.2 Objective 1.2.2

“To field test this method of expressing organisational values for applicability across a wide variety of organisations in the private, public and not-for-profit sectors.”

This objective builds on the exploratory objective 1.2.1. It proposes a set of stakeholders and examines in more detail, and for a variety of organisations, the relationships between this set and organisations’ strategic intentions. Because an attempt is made to classify and quantify these relationships, this objective needs to be supported by a descriptive type of research.
There are two parts to this objective. One concerns the proposed list of stakeholder groups, verifying that it is complete and unambiguous. The other is concerned with the relationships between the proposed stakeholder groups and the organisation, and whether those relationships can be comparatively quantified. In both cases the inference method needs to be deductive as it is setting out to establish whether (or to what extent) the proposed generalised hypothesis is applicable to specific cases.

Ontologically, the objective attempts to use quantified data for analysis, but the data depends on the personal interpretations by the respondents of the desired relationships between their organisations and the stakeholder environment. The perceptions of respondents who have senior (board level) positions within the organisations can be considered to be prime drivers of key organisational strategic decisions. Therefore, as organisations do not already have a detailed strategic analysis of stakeholder relationships in the terms proposed by this thesis, it is necessary to deduce those strategic drivers by analysing perceptions expressed by board level representatives. For these reasons this part of the research necessarily depends on a subjective ontology. In other words, it is proposed for the purposes of this research that it is not possible to define stakeholder relationships according to an absolute system of right and wrong, but only in terms of the perceptions of key people who control the organisations.

Epistemologically the two parts to this objective are separately significant. The first, which concerns validating the proposed list of stakeholder groups, is necessarily phenomenological as it has to invite the respondents to comment on the completeness and clarity of the proposed list. This then has to be accompanied by an inductive analysis, because the response may potentially require the structure to be reconstituted and the theory re-evaluated. The second part, which concerns the quantification of relationships, is more structured because it depends on a specific list of stakeholder groups (as previously determined from the literature review and the early part of the field research) and can be referred to a formalised scale for evaluation. It is often the case that positivist data is more structured than for
phenomenological data, but in this situation this relationship does not obviously hold. While the data is potentially highly structured, it depends on the perceptions and opinions of the organisation representatives, as well as the manner in which the survey is conducted and the data are collected. Therefore this must be regarded as phenomenological and the method of data collection clearly specified.

The reliability of this objective is limited by the size of the available sample, so it is not possible to draw statistical conclusions that can represent the entire population of organisations. However, as this objective is setting out only to establish whether the relationships can be understood and quantified, it can be satisfied with a small sample, so long as that sample contains representatives from organisations spanning the very small to the very large. Significant risks to reliability could arise from unclear or ambiguous questions, or presenting a different approach to different respondents, so these risks are considered and countered in the data collection method. The possibility of misinterpreting or misrepresenting the data is minimised by formally structuring the data and using numerical scales instead of depending on semantics.

Content validity is again limited by the available sample size, and this has to be recognised and any conclusions accompanied by an appropriate warning. While the results of this field research cannot be interpreted to represent the entire population, they are still valid as a foundation for justifying the further exploration of quantified stakeholder relationships. In this case, construct validity is comparatively straightforward as the key constructs (stakeholders and a numerical scale for comparison) are clearly defined for the purposes of this research. As this objective does not involve prediction, criterion validity is not relevant.

7.7.3 Objective 1.2.3

"To express organisational values in terms that provide a clear and structured connection between organisational objectives and process performance requirements."

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Methodology

The previous objectives indicate that it is possible for an organisation to represent its desired stakeholder relationships on a comparative scale. For those relationships to be achieved they need to be represented as objectives in the organisational strategy and in the implementation of that strategy. The literature review of chapter 4 indicates that, while this connection is often problematic, it is nevertheless very important. Evidence of the implementation of strategy lies in the measurable achievements of the organisation, and these are manifested as outputs of the various processes. Thus there is a logical connection between stakeholder relationships as drivers of strategy, and process outputs that return satisfaction to the stakeholders.

The element in this logical sequence that is to be proved is that of relating stakeholder satisfaction to organisational process outputs. Financial measures are ontologically objective and epistemologically positivist, being designed to provide a consistent collection method and data representation regardless of who collects the data. Their strength therefore lies in their reliability. The weakness, as discovered in the literature review of chapter 2, lies in their validity because the information, while being nomothetically compliant does not paint the required picture and in good time to support important decisions.

Stakeholder satisfaction, being a more generalised structure of representation, is potentially more relevant, but it is less clearly defined in terms of simple constructs, and is subjective. This objective thus demands an answer to the question: what makes stakeholders satisfied? The methodology for this objective is founded on the concept that for each stakeholder group a standardised list of satisfiers can be defined, and those satisfiers represent the relationship between two things. On the one hand they need to represent those things that the stakeholders perceive as satisfying. On the other hand they need to represent outputs from organisational processes.

The basic construct adopted for this research takes the perspective of the stakeholder, from a position outside the organisation, looking in. It also recognises that different
things are more or less important to different people, so each stakeholder group needs to be represented by its own list of indicators, even though those lists may contain shared elements. Pursuit of this objective starts by proposing a set of satisfiers for each stakeholder group, and tests those lists for applicability and completeness. No attempt is made in this research to quantify organisations' priorities at this level. It is intended to establish whether the construct of stakeholder satisfiers is supported, and what constitutes a set of satisfiers that could form the basis for further, quantitative research. For these reasons this objective needs to be supported by exploratory research.

Ontologically, the objective relates to structured data (lists) but those data represent the opinions of the respondents and therefore have to be classed as subjective. Given the opportunity to survey a much larger sample it might be possible to establish a set of generic satisfiers that could be accepted as norms and considered as objective, but that is not within the scope of this research. Epistemologically this objective is phenomenological as it has to invite the respondents to comment on the completeness and clarity of the proposed lists. This then has to be accompanied by an inductive analysis, because the response may potentially require the structure to be reconstituted and the theory re-evaluated.

The reliability of this objective is limited by the size of the available sample, so it is not possible to draw statistical conclusions that can represent the entire population of organisations. However, as this objective is setting out only to establish whether the stakeholder groups can be characterised by generic satisfiers, it can be satisfied with a small sample. Significant risks to reliability could arise from unclear or ambiguous questions, or presenting a different approach to different respondents, so these risks are considered and countered in the data collection method. The possibility of misinterpreting or misrepresenting the data is minimised by formally structuring the data instead of depending on semantics.
Content validity is again limited by the available sample size, and this has to be recognised and any conclusions accompanied by an appropriate warning. While the results of this field research cannot be interpreted to represent the entire population, they are still valid as a foundation for justifying the further exploration of stakeholder group-related generic satisfiers. In this case, construct validity is comparatively straightforward as the key constructs (stakeholders and generic satisfiers) are clearly defined for the purposes of this research. As this objective does not involve prediction, criterion validity is not relevant.

7.7.4 Objectives 1.2.4 and 1.2.5

"To present a selection of factors that should be considered when designing an organisational performance model. This needs to be based upon good modelling practise and a critical analysis of existing performance models". And "To further develop the paradigm into a model for expressing the structural connection between processes and organisational performance, thereby to govern and support effective feedback and improvement mechanisms at operational level."

These build on the concepts of representing operational performance in terms of process outputs, and using stakeholders to connect these to organisational values. They represent two stages in a theoretical development that can be used as the basis for the detailed design and implementation of a stakeholder-based organisational performance model. Methodologically they are considered together, and discussed in relation to the modelling concepts presented in the literature review of chapter 5 as well as those presented earlier in this chapter.

There are a number of definitions of a model, each related to the range of constructs that the model is intended to represent. In this case, the definition offered by Knopfel et al. (2005) is adopted: “a model is an abstraction of an existing or planned system which comprises only those aspects which are relevant to its purpose”. Thus, the model to be developed is not intended to represent every aspect of an organisation, down to its detailed procedures and resources. It is intended to represent only those
things stated or implied in the objective, notably: stakeholder-related organisational values, output processes, performance measures and their relationships.

Given the choice of either a physical or symbolic (aka analytic) type of model, the former would entail constructing an entire organisation, complete with resources, in order to conduct experiments or demonstrations. This is considered to be unrealistic, even on a small scale, principally because it would be too expensive and involve too many people for research of this nature. It would also have to be an example of a particular type of organisation and would then not be considered generic. Therefore the type of model being considered is variously described as symbolic or analytic, but the term “symbolic” will be used here.

Within that type, there are variations related to the possible purposes of the model, so these need to be clarified. It is not intended to develop a simulation model in the sense of being able to calculate optimised values for control variables using analytical or stochastic techniques. Such models are best suited for the representation of production processes (such as linear programming in product ingredient optimisation), or production control (such as queue management and resource scheduling).

The proposed model is intended to mathematically rather than visually represent the relationships between the constructs. Thus, the overall measured performance is to be compared with the intended strategic performance profile, and any variations referred to the appropriate operational processes (and their owners) for more detailed analysis. Given this, it should be possible to compare the performance with notional, alternative strategic performance profiles in order to determine the processes that may need to be reviewed. It should also be possible to anticipate proposed changes to processes in terms of their outputs to investigate the extent of the effects on stakeholder-related performance. Thus, the model is intended to have a “what-if” capability, and only in that sense can be considered as predictive.
Models can also be static or dynamic. The models discussed in the literature review of chapter 5 are static insofar as they deal with data sets that represent snapshots in time. Those snapshots may be historical or predictive. So although charts can be drawn that show progressive changes in the variables, the methods generally use neither interpolation nor extrapolation to calculate intermediate or projected results. For the proposed performance model it is not a requirement to embody dynamic capability, so the model is to be considered static, representing snapshots in time that may be charted if required to show trends.

Ontologically, models that are built on constructs that are strictly financial can be regarded as objective because their evaluation is factual according to the definitions of the variables used. However, in relation to stakeholders generally, it was found in the literature review of chapter 2 that the concept of “satisfaction”, however it might be classified in parts or contributing factors, is inescapably subjective. This represents a profound difference between the proposed model and the standard financial models, because it allows an organisation to recognise the subjective nature of its relationships. The lack of normative conformity in the evaluation of stakeholder satisfaction requires each organisation to determine for itself an appropriate method of defining the evaluation criteria; thus to determine what construct or variables represent their particular “reality” of stakeholder satisfaction.

Epistemologically, financial models are positivist because they make use of constructs that are evaluated using standard methods which are not (at least in principle) varied by the operator or open to different interpretations. In this case, the subjective ontology of the constructs does not bear the application of a positivistic evaluation. While some things, such as delivery punctuality, appear to be measurable simply by comparing dates and calculating statistics, this does not ask the question how much it matters. This is a classic weakness of a positivist approach, in that it provides a high degree of reliability but potentially a low degree of validity.
In regard to stakeholder relationships, it is considered that the only people who are really fit to judge performance are the stakeholders themselves; they will decide not only what matters, but the level of performance that is required. They can do the statistics where that is relevant, but they can also judge whether, for example, it is the maximum, minimum or average value (or something else entirely) that matters to them. A mechanistic calculation, viewed from the perspective of a process, is potentially liable to provide metrics that are meaningful to the organisation but not to the stakeholders. The danger presented by this disconnection may be represented by an organisation pursuing performance targets that are either unnecessary (and therefore wasteful), or not deemed relevant by the recipient. This then concerns perceptions of value, and some sort of axiological awareness. Thus, an interpretivist epistemology is appropriate for a stakeholder-based performance model, and this needs to be represented in two ways. Firstly the measured data set needs to be defined (and revised as necessary) according to the perceptions of value by the stakeholders. Secondly the method of evaluation (data collection and analysis) may need to use perceptions of performance rather than objectively observed values, and may even need to use “rich” data from open questions and discussions.

This is potentially a very complex mixture of epistemology and axiology. It is an area in which there is inadequate general knowledge to formulate a clear and precise set of metrics, although it is to be expected that some companies will have conducted detailed market research to clarify the most critical issues related to customers. When developing a model, the literature review of chapter 5 shows that it is acceptable, and often desirable, to develop a model progressively. Thus, an organisation should not only be able to learn about its performance from data collection and analysis using the model. It should also be able to adapt the model to improve its validity and reliability.

In relation to inference methods, all four of the theoretically available methods are relevant. Firstly, inductive reasoning is required when determining the satisfaction parameters, so that open questions or evidence of dissatisfaction can be used to
change the constructs of the model. Secondly, deductive reasoning is required in order to evaluate the effects of proposed process or strategic profile changes. The other two are statistical. It cannot be assumed that every member of a stakeholder group will have the same perceptions of value. Therefore, when analysing organisational performance it may be necessary to use statistics to calculate the proportion of stakeholders likely to be satisfied with a given level of performance, possibly based on normal distribution curves. It may also be necessary to consider combinations of performance indicators; for example it might be expected that those who consider price more important may not consider delivery performance very important. In such cases it might be necessary to divide stakeholder groups into subgroups, and when dealing with collected data to determine who is in which subgroup for analysis.

By placing emphasis on an interpretivist paradigm, the validity of the model is potentially high. However, this depends on whether the chosen performance indicators are relevant to the perceptions of the stakeholders, and how well they retain their relevance as perceptions change. Construct validity relates to whether the chosen performance indicators are relevant, and content validity relates to whether the analysis methods correctly represent the required balance of values. This issue was discussed in the literature review of chapter 5, where it was found that for business models it is recommended that an iterative approach is taken. Therefore, the issue of validity needs to be addressed by building into the model a review process that evaluates the constructs and their mathematical relationships as well as the data. This is needed partly to develop a model from initial ideas (and guesswork) to one that is refined and accurate, and partly to track changes in the stakeholder environment.

The reliability of the model depends on the manner of collection of the data. It can be expected that some indicators can be represented by factual data (e.g. share dividends) while others will need to be represented by subjective data (e.g. whether short-term share dividends are more important than future stability, which may require a trade-off with some other indicator). In such cases it is important to ensure
that data is collected from those who represent the stakeholder group, that they are asked clear and unambiguous questions, that their answers (or behaviour patterns) are carefully recorded, and account is taken of other issues routinely associated with field research.

7.8 CONCLUSIONS

The methodology of this research has been presented by defining the theoretical concepts and then relating these to the research objectives set out in chapter 1. The theoretical concepts included ontology, epistemology, axiology, research types and the associated considerations of reliability and validity. Each topic was presented by a brief discussion of the philosophical background followed by the interpretation offered by business research authors.

The first three objectives could be discussed with reference only to these topics, but the fourth and fifth objectives required to be discussed with reference to the literature review on modelling presented in chapter 5. By this means the methodological foundations of the field research and the model development were both fully explained. Underlying assumptions related to this thesis were also presented and the choices referred to the theoretical discussion.
The hypotheses of chapter 6 built on the concepts presented in the literature and stated that it is possible to develop an analytical framework based on those concepts. The first four of those hypotheses are the subject of this field research, and are restated here for convenience:

Hypothesis 1. A standardised list of stakeholder groups can be defined and meaningfully interpreted and applied to all organisations.

Hypothesis 2. Any organisation can define its strategic priorities as a profile in numerical terms related to these stakeholder groups, and be compared with others on a statistical basis.

Hypothesis 3. An organisation can be expected to be more involved in seeking efficient relationships with the stakeholder groups that it perceives as being more important.

Hypothesis 4. For each stakeholder group a standardised list of satisfiers can be defined in terms that permit meaningful data collection and organisational review.

This chapter starts with a discussion of the issues related to the choice of data collection method, with consideration to reliability and validity, and the methodology presented in chapter 7. This is followed by a discussion of the required variables, with clear references to the hypotheses and aims of the research. The composition of
the sample is then explained, with its relevance to the research methodology and data requirement.

The data collection instrument is then explained, with a discussion of recommended options. This covers the representation of the required variables, the administration of the data collection, and the method for testing validity. The significance of administrative issues arising from the trial and pilot phases are discussed with the manner in which they affected the design and administration of the data collection phase. This is followed by a description of the analysis that is to be used on the collected data, and how it relates to the hypotheses and the purposes of the field research. Presentation and analysis of the data is referred to chapter 9, where support for the hypotheses is discussed.

1 The background and stakeholder-related constructs used in this field research have been presented at conference. For further details see: Grossi, P.C., Harwood, D.J. and Rowlands, H. (2005) "The Stakeholder Model as a Performance Standard". Presented at British Academy of Management Annual Conference, Said Business School, Oxford, 2005
8.1 INTRODUCTION

The field research of this thesis examines the first four hypotheses of chapter 6 to determine whether they are tenable. These hypotheses relate to objectives 1.2.1 – 1.2.3 of chapter 1, so the research methodology is based on the considerations presented in sections 7.7.1 – 7.7.3 of chapter 7. This chapter is concerned with the data collection and analysis methods used to test the hypotheses, and which therefore underlie the presentation and analysis of the field research results presented in chapter 9.

The first hypothesis relates to objectives 1.2.1 and 1.2.2 of chapter 1 and this is shown in chapter 7 to require a combination of exploratory and descriptive research types. The exploratory phase has been partially pursued in the literature review of chapter 3 in which a variety of considerations were presented for constructing a comprehensive set of stakeholder groups. It is developed here by distilling those views into a proposed set of stakeholder groups, and offering that set for comment by a field research sample. In this way the required construct for further research, which is the proposed list of stakeholders, is subjectively validated.

The second hypothesis relates to objective 1.2.3 of chapter 1 and this is shown in chapter 7 to require an exploratory research type. This part of the field research seeks to determine whether the proposed set of stakeholder groups can be related quantitatively to the strategic intentions of organisations of different types. This was tested by reference to the same field research sample, but using a numerical scale for quantification. The resulting data, being in numerical form, are then available for comparison and statistical analysis.

The third hypothesis also relates to objective 1.2.3 of chapter 1, but addresses it from a different perspective. It seeks to establish the extent to which the organisation actively pursues a productive relationship with each stakeholder group. As the active pursuit of anything in an organisation is related to its processes (in the sense that
processes are determined by outputs rather than methods), this provides a basis for correlating the relationships between processes and strategic intentions.

The fourth hypothesis relates to objective 1.2.3 of chapter 1, which requires a further exploratory research phase. From the literature and information commonly available in the public domain (e.g. advertising copy) a set of generic satisfiers was prepared for each stakeholder group to represent an assessment of the subjective viewpoint of the stakeholders. These lists were tested by presenting them to the same field research sample as before, inviting comment on their validity and completeness. It is apparent that these data are doubly subjective, in that the respondents were required to provide their views on those issues that stakeholders consider most important. This is relevant to the hypothesis because it is the relationship perceived by the organisation (as represented by those who determine its strategic values) that is being considered. Since it is the actual perceptions of stakeholders that are true indicators of the organisational performance, these are addressed in chapters 10 and 11 by representing them as constructs in a performance model, and contribute to the construct validity of that model.

The required information is not available from existing databases, so primary research was required to collect new data. To pursue this, a new instrument was prepared in the form of a questionnaire and this was applied to a sample of organisations that were accessible by the author.

8.2 RESEARCH APPROACH

8.2.1 Choice of method

According to Hussey and Hussey (1997, chapter 3) there are two principal types of research. Positivistic methods are described by Oppenheim (2001, chapter 1) as “descriptive”, as they are intended to produce numerical analyses. Phenomenological methods are described as “analytic”, as they are concerned more with why and
whether than how many; they may also be “exploratory” where it is suspected that there is causality between variables but its nature is uncertain.

Positivistic studies may use cross-sectional, experimental or longitudinal methods, and may use surveys. Cross-sectional studies are used to investigate variables applied to different contexts, and is therefore not considered relevant here. Experimental methods involve changing or simulating the situation being studied, and are not relevant to the research questions being studied here. Longitudinal methods are best suited to studying the effects of change, but as no change is being introduced by this research it is not a relevant method. Surveys are normally deductive, seeking to test a hypothesis using a statistically significant sample that allows authoritative analysis and presentation of results. Oppenheim (2001) offers an additional option of before-and-after, in which the same sample is used twice in order to determine causality with an intermediately occurring effect, but causality is not related to the research questions in this thesis. As this field research is phenomenological, required to inductively develop theoretical relationships from a limited number of field observations, surveys (as positivist methods) are neither relevant nor feasible for application in this field research.

Phenomenological studies may use action research, case studies, ethnography, feminist perspective, hermeneutics, participative enquiry or grounded theory. Action research is aimed to investigate opportunities for change; case studies are devoted to examining a particular subject in depth rather than comparing subjects within a sample; ethnography is concerned with human activity and anthropomorphic variables; the feminist perspective is concerned specifically with gender issues; hermeneutics concerns the interpretation of historical texts; participative enquiry involves the subjects in designing and implementing the research programme. It is clear that none of these are well suited to address the hypotheses of this research.

However, grounded theory is specifically aimed to support the inductive development of a theory about a phenomenon. It may involve both induction and deduction, where
a theory is developed and then tested, possibly repeatedly. Grounded theory does not assume that a statistically significant sample is available, although the strength of support for the theory is related to the reliability and validity of the data. Having developed a theory using this method it can be further tested using positivist methods such as surveys in subsequent research programmes. Therefore this method is considered most appropriate and has been adopted to investigate the hypotheses and pursue the aims of this research.

8.2.2 Reliability

In section 7.6.1 of chapter 7 it was found that reliability is primarily concerned with repeatability, independence of observer and transparency of interpretation. It is therefore an important consideration in the design of the data collection method. In this study reliability is particularly related to the sampling method and the design and usage of the questionnaire employed as the data collection instrument. The sampling method is discussed in section 8.4, and the questionnaire development and usage is discussed in section 8.5.

8.2.3 Validity

In section 7.6.2 of chapter 7 it was found that validity can be considered in three parts: content, construct and criterion. Of these, the last has been eliminated in view of it being irrelevant to this research. Content validity is related to the coverage of the subject area, in other words whether the variables required by the hypotheses are all properly represented by the data. Construct validity concerns the relationship between the data and the theoretical constructs, in other words how representative the data are of the variables being measured. This is particularly relevant where the theoretical constructs refer to variables that cannot be directly measured, and are inferred indirectly through more accessible data. Issues of validity are discussed in several sections where they arise.
8.3 VARIABLES

Construct validity depends on clearly defining the variables related to the research hypotheses, and ensuring there is a clear relationship between them and the data variables accessible in the field research. The research variables are stated in the hypotheses, and are: stakeholder groups, organisations, strategic priorities, relationship involvement and satisfiers. These are now discussed in turn, considering their nature and their relationships to the proposed measures.

8.3.1 Stakeholder groups

The literature specifically mentions a number of stakeholder groups, and these form the basis for the proposed list. In constructing the list, duplication arising from synonyms was avoided (e.g. customers and clients, environment and planet).

- Some, such as customers, suppliers and shareholders are discussed in many places in the literature.
- Statutory bodies such as Government offices are also mentioned in the stakeholder literature, although there is disagreement over whether they are strictly stakeholders. They have been included in this list on the basis that they require some commitment from the organisation they must be given due regard. There is also opportunity to influence relationships, even if this is not often exploited.
- Employees are extensively considered in relation to human resources.
- The environment and community are considered in relation to Corporate Social Responsibility.
- Infrastructure is concerned with damage to shared resources such as roads, or overuse of services that may affect other people or organisations. It is kept distinct from community, which is more concerned with the welfare of people either locally or in disadvantaged areas, and environment, which is more concerned with pollution and overuse of natural resources.
Directors are included in the list because they carry particular legal liabilities above and beyond those of other employees. These receive mention in the literature on Agency Theory.

Competitors are significant as they are part of a trading community that may seek mutual advantage through co-operation or individual advantage through appropriate marketing strategies. Both aspects are considered in the literature on competitive advantage.

Users and maintainers are separately identified from customers as they have substantially different relationships with the organisation and its products or services. If the organisation is to optimally satisfy these groups it requires clarity in identifying their interests and significance.

There are also those that provide financial resources other than shareholders. These have been classified as lenders and are included because they have a legitimate expectation of compensation, usually on a fixed-return (low risk) basis which is very different from the speculative (high risk) relationship applying to shareholders.

Parents and subsidiaries are included because, when organisations form part of a structure there may be particular requirements that govern their relationships, in terms of control and in financial support or returns.

Partners are included because many organisations form project-related alliances for mutual benefit, and are required to honour their commitment to such joint ventures. This is not to be confused with the popular description of suppliers and customers as partners – they are separately identified here.

Public media have been included because, other than their role as suppliers in the context of advertising, they may product favourable or unfavourable publicity according to the behaviour of the organisation, and therefore, for some organisations, may need to be “cultivated”.

Security is included because it fills a gap related to protection of the organisation against a variety of risks including natural disaster and criminal activity. It represents an unavoidable investment (e.g. in locks, anti-virus
software, risk awareness training etc) and therefore a commitment for which there needs to be evidence of effectiveness.

- Trade associations are included because they provide valuable information and knowledge sharing services within trading communities, and many organisations support them through subscriptions, participation in surveys and through published material.

The above accounts for the nineteen stakeholder groups that are the subject of the field research. Each one of them represents a commitment on the part of an organisation to a greater or lesser extent.

In the literature, while stakeholder groups are named, they are not defined clearly or in terms that are unambiguous across sectors or activities. Therefore if a standardised list is to be prepared it must comprise of more than a list of unexplained or unqualified names. In particular, if the list is to be used for analytical purposes the entries must be:

**Complete.** Every possible stakeholder must be represented. If the list is incomplete then any strategy or performance measure based on the list will have a gap or blind spot that may be significant. In the literature review of chapter 2 it was seen that a stakeholder may have several interests that place them in more than one group, so it is important that not only are all the stakeholders represented, but that all their interests are represented across the list of groups.

**Distinct.** Each group must be defined in terms that enable it to be clearly distinguished from all others. If there are overlaps then there can be ambiguity in the assignment of stakeholder interests, or in the analysis of performance. Also, if certain stakeholder interests are represented in more than one place, undue bias may result in the analysis.
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Clearly defined. Different trades and activities use different words to express similar concepts, so (especially when conducting a survey) it is important to use the vocabulary that is relevant to the organisation being considered.

Therefore the list of stakeholder groups was defined for the purposes of this thesis in three parts: the group name, common synonyms, and a formal description. This, for the purposes of the survey, is taken as the fundamental stakeholder metastructure. By clearly specifying this information in the questionnaire, the respondents are properly informed of the issues on which they are asked to make judgements. This, coupled with selecting respondents who are knowledgeable about the relevant issues, is an important issue relating to reliability (Frazer and Lawley, 2000, chapter 3). More information than this, such as speculative associations with particular types of organisations, was considered unnecessary, possibly confusing and may be considered "leading".

8.3.2 Organisations

The research objectives and hypotheses do not restrict the research to any particular type or size of organisation, but there is a tendency in the literature for authors to focus on one sector (public, private or not for profit) or another. It is therefore of interest to find out whether, based on a small sample, there may be significant differences between these sectors. Therefore, as part of the data collection, the sector of each organisation is recorded for analysis and the sample is spread as evenly as possible across the sectors.

There is also a tendency for published material to make reference to larger organisations, but there is no indication that this should be a significant factor in the evaluation of stakeholder relationships. As shown in Appendix A there are four major divisions of organisation size; coupled with the three sectors, an analysis on size would divide the sample to the extent that the results would provide little analysis of value. Therefore, in order to eliminate size as a significant or confounding variable
(Oppenheim, 2001, chapter 2) it is recorded in order to ensure a spread of entries across the divisions. Similar considerations applied to the scope of operations (from local to international), so this was also recorded in order to attempt an even spread for elimination as a significant variable.

An attempt was made to record the organisations' mission statements. This was required in case the field research revealed entirely unexpected findings, and it was necessary to look for clues (in a phenomenological/inductive programme) that may lead to a more meaningful research programme. As it happens, only the larger organisations had mission statements, and the information did not transpire to be necessary.

There are potentially numerous other variables, including geography, organisation maturity, trade etc., but in a small sample it was not possible to either analyse or eliminate these. In future research it may be of interest to explore these as variables in a positivist programme based on a much larger sample, but for present purposes these must be regarded as boundaries to the validity of this field research programme. Therefore, other than the foregoing, the only data designated for collection were the identities of the respondents and their organisations so that, if necessary, the data collection could be independently repeated.

8.3.3 Strategic priorities

In this research programme stakeholders are not to be confused with resources, even though the two sets have members in common. The strategic priorities are therefore concerned only with the organisations' support for stakeholders as beneficiaries, and the motivation for this support in terms of mutual dependence is not being studied. Also, this research is not attempting to resolve the ongoing debate concerning the merits of instrumental vs philanthropic motivation. This clarification is important as it determines the relevance of the data and the applicable analysis.
The strategic priorities are concerned with the relative importance of the stakeholder groups to the organisation, so some sort of comparative scale is required to represent them. Three options were considered (Hussey and Hussey, 1997 chapter 6): ranked, rated, and numerically rated, as follows.

Ranked data seems easy to collect as it is only necessary for the respondent to consider the stakeholder groups by a sequence of direct, one-to-one comparisons. The first problem is that it assumes that no two can be considered equal, so where the subjective view of the respondent is that they are indistinguishable, the ranking data type demands a false evaluation. The second problem is that there is no indication of the differentials. In one case, two adjacent entries may be almost indistinguishable, while in another case they may be very significantly different. This affects the accuracy of the data and may prevent it from providing true indications for statistical analysis.

Rated data is related to a scale of descriptive values, such as high, medium and low. It has the advantage over ranked data that it allows equal ratings where differentials are imperceptibly small, but it has other disadvantages in this case. Because of the range of possible perceptions of value a rating scale would need to have a large number of values, and there may be semantic problems ensuring that they are uniformly interpreted by the respondents. Also, semantically rated data does not clearly indicate the strength of differentials when there are more than a few options, so the interpretation of the data is restricted.

Numerically rated data can be referred to an integer scale which can be grounded at zero to provide proportionate representation. There is a possible problem with the respondents being unable to assess their priorities in such a precise manner, but it is the object of this research to determine whether this is feasible, so it has to be tried. Numerically rated data can support a range of analytical methods, including simple statistics such as maximum, minimum and average, as well as Pearson’s Product
Moment Correlation Coefficient, which is a common statistical technique for determining whether there are significant variations between data or sets of data.

For this reason, evaluations of strategic priorities were collected using numerically rated data on a ratio scale. The range 0-10 was chosen as it seemed to be sufficiently graduated without being too demanding on the respondents (which could lead to false precision). The value of 10 was designated as “most important”, but like any other value could be specified for more than one stakeholder group.

8.3.4 Relationship involvement

This is intended simply to indicate which of the three levels of commitment discussed in the literature (chapter 3, section 3.9) were applicable to each stakeholder group. A fourth option “not applicable” was also to be available. The analysis of these data is intended simply to reveal whether perceptions of importance approximately correlated with the respondents’ views of their organisations’ level of commitment. In considering the same options as for strategic priorities, it was decided that a simple rated data system should be used in this case. In the questionnaire the data were represented by the digits 0-3 corresponding to descriptions offered to the respondents. By representing the data in numerical form it simplified the analysis of correlation.

8.3.5 Satisfiers

In order to clarify the significance and measurable characteristics of the stakeholder groups it was required to define a list of satisfiers that could be seen to relate to the perceptions of value by stakeholders. While this is an exploratory phase of research, it was considered that if an entirely open question were asked, there was a danger that any respondent might not think of everything in the interview. This may have involved several recursions in which each respondent is presented with the others’ lists for comment. Also, if interview notes were sent out in advance it was considered likely that the respondents would have very little time to think about them. Therefore it was considered necessary to prepare a list of satisfiers in advance for comment.
The literature does not provide a comprehensive list of measurable satisfiers, although there are a number of clues. Some popular models, such as the Balanced Scorecard, EFQM Excellence Model, and QFD offer advice related specifically to customers (Kaplan and Norton 1992, 1993; European Foundation for Quality Management, 1992, Oakland, 1993). There is also a tendency to confuse customer-perceived values with supplier values. For example Kaplan and Norton (1993) suggest that "high-performance professionals" is a customer value when it is really a supplier attribute that is intended to generate perceived value measured in other ways (perhaps by the measurable value of reliable advice, or the speed of response to customer requirements). In relation to competitive strategy, Porter (1985) offers suggestions related to differentiation, which impinge on perceived value in supply chain relationships. However, Womack and Jones (1996) confuse the issue by stating that "value can only be defined by the ultimate customer", and then focussing on internal methods and measures which are not clearly connected to the ultimate customer and their perception of value.

This is not to say that these contributions to the literature are not valuable in drawing management attention to issues that lead to improved efficiency and effectiveness. But it is found that in many cases they are indirect measures assumed, without a clear analytical justification, to be representative of the required variables. This presents a particular problem in regard to construct validity.

In order to satisfy the need for construct validity, it was therefore considered necessary to attempt the compilation of an initial set of generic stakeholder-related satisfiers that could be measured by customer perceptions directly rather than by assumed internal proxies. It is more difficult to establish a set of measures for stakeholder satisfaction, and to support that with a set of reliable and accessible measures, than it is to set up proxy measures that can be measured within the organisation. This is partly because the management has complete control of the organisation and can specify what records are kept for analysis, partly because the
internal records are more easily accessible for analysis than those of stakeholders, and partly because there is no shortage of advice on internal performance measurement through initiatives such as Kaizen, TQM, ISO9001, Lean, Statistical Process Control (SPC) and others.

Another useful source of perceived values comes from observing advertisements in various media. For example, when shops advertise low prices, ease of access, avoidance of animal-tested ingredients, packaging options, "fair trade" and other customer or community-related benefits this implies that their own market research has indicated that these things matter sufficiently for them to take a position. When oil companies advertise low environmental impact, and car manufacturers promote multi-fuel vehicles these are also indicators that market research points to related perceptions of value.

The initial list was therefore compiled by taking ideas from the literature as well as the implications of information generally disseminated in the public domain. However, for a comprehensive set of stakeholder-related satisfiers to be a manageable list, it would need to be compressed and expressed in generic terms that could conveniently be converted into appropriate terms by different organisations. The result, used in the questionnaire is thus an initial list which was presented for comment by the range of organisations participating in the survey.

8.4 THE SAMPLE

The method of selecting suitable organisations was based on the considerations discussed in section 8.3.2. In view of the strategic interest of the required data, it was considered that only people of very senior (e.g. proprietor or board level, or equivalent) would be able to provide information that truly represents the nature and strategic intentions of the organisations. It therefore had to be accepted that the availability of such people, who would be willing to discuss highly confidential
aspects of their organisations’ intentions and relationships, would necessarily limit the composition of the sample.

The method of selection used is termed “convenience sampling” (Hussey and Hussey, 1997, p233), which in this case means that all the organisations with which the author had a personal contact were approached. All of these organisations consented to participate. A number of others were approached in order to balance the sample across the three sectors, and sufficient respondents were found to achieve an approximate balance. In the end a total of fourteen organisations consented to participate. The composition of the sample by sector is shown in figure 8.1, the composition by size in figure 8.2, and the composition by scope of operations in figure 8.3. The size bands used in this analysis are consistent with those defined for use in the European Economic Community (European Economic Union, 1996), and summarised in Appendix A.

![Figure 8.1: Composition of the Sample by Sector](image-url)
The sample is small, and care has to be taken not to attribute undue significance to the data, or to assume a degree of reliability that is not justified. However, in relation to the hypotheses and subject to these limitations the sample is sufficient to provide the required indications to support the hypotheses and demonstrate feasibility of the supporting theory. The sample is described fully in Appendix B. Organisation names and the identities of the respondents are not shown, in accordance with the undertaking of confidentiality.
8.5 QUESTIONNAIRE DESIGN AND ADMINISTRATION

8.5.1 Data collection method

It was considered that the required data would not be apparent by observing activity in organisations, so it was necessary to collect the data by some sort of interview. In order to ensure reliability, it was felt necessary to prepare the questions carefully in advance, and ensure that each respondent was presented with exactly the same questions presented in exactly the same way. These considerations were represented in the questionnaire (Appendix D), but it remained to decide how that questionnaire would be administered. Several options were considered.

By mail. This would be self-administered, but would have to be very straightforward to use (Frazer and Lawley, 2000, chapter 3). The problem is that the data constructs of this research would be unfamiliar to most people, and would need careful and possibly lengthy explanation. It was felt that this unfamiliarity would be off-putting and would lead to a lower than average response rate, which is in any case low for this type of approach (Hair et al., 2003, p.130). A variation of this method uses the internet, in which the respondents are referred to a web page. This method is similar to mailed questionnaires, and can be suitable where the questions can be answered by tick boxes and there is little typing involved.

By interview in person. This allows the interviewer to offer explanations, and to see that the questionnaire is fully completed. It allows the interviewer to show the respondent notes or diagrams to illustrate the questions and maintain focus on the subject area. The difficulty lies in obtaining the required commitment to personal meetings with the type of people that are required to participate.

By telephone. This has the advantages of personal interviews, in terms of progressing completion and maintaining uninterrupted focus, and has the additional advantage of being shorter and therefore less difficult to arrange. Requiring less travel, it also permits access to non-local organisations. But it is necessary to provide a copy of the
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questionnaire with accompanying notes in advance so they can be referred to in the interview (Hair et al., 2003, p130). Oppenheim (2001, chapter 6) calls this "standardised interviews", and finds it has a much better response rate than mail. Also, respondents find personal contact helpful in explaining the questionnaire, even where there are printed notes, and telephone interviews take less time generally than meetings.

For these reasons it was decided to use the telephone interview method. The respondents were initially approached by telephone (in some cases to their personal assistants) and asked to agree to a telephone appointment for completing the questionnaire. The instrument itself was prepared and sent in advance of the appointment, with a polite covering letter. As this field research focuses on a subject area that is unfamiliar to most people, it was considered necessary to provide some background information so the respondents would understand the issues involved. This was therefore included as an introductory section to the questionnaire.

Overall, the method used is summarised as follows. This takes into account the foregoing recommendations and the experience gained in the test and pilot stages.

- Approach prospective respondents in advance by telephone (either directly or through a secretary) and seek their involvement.
- Send them (by mail or email, as agreed) a copy of the questionnaire with explanatory notes.
- Contact by telephone or email (either directly or through a secretary) to ensure the questionnaire is understood, and arrange an appointment to conduct the telephone interview.
- Contact by telephone at the appointed time.
- Record the results during the interview.
- Provide a copy of the interview record immediately afterwards, with an invitation to make amendments if necessary.
When all the data is available, prepare a report (with anonymous identifiers) for all the respondents and provide copies with letters of thanks.

The last two actions were aimed to assure the reliability of the data, in case for any reason the recorded answers were not as the respondents thought they had submitted, or in case (after further thought) they wished to change their minds. This procedure was found to be effective, although there were problems related to the availability of the respondents - in some cases it was found to be necessary to be persistent in seeking appointments through intermediaries.

8.5.2 Design and representation of variables

The overall design of the questionnaire was arranged in three parts. The first part (shown in Appendix C) was a form on which the organisation and respondent details were recorded. From this form the classifications by size, scope and sector were obtained. These classification questions are very easy to answer, and were therefore put at the beginning (Frazer and Lawley, 2000). The second part comprised explanatory notes and five question areas. The third part contained the list of definitions of the stakeholder groups and the response forms. The second and third parts are shown in Appendix D.

The questions each need to be concerned with one of the hypotheses, and clearly related to the field research question that is to be answered (Robson, 2002, chapter 3). In general terms, the questions also need to be clear, specific and answerable (Robson, 2002, chapter 3); also short, plain language, and without leading or taxing the memory of the respondent (Oppenheim, 2001, chapter 8). These considerations were taken into account in the design of the questionnaire and the phrasing of the questions.

Frazer and Lawley (2000) recommend that screening questions are used to eliminate non-qualifying respondents. This is necessary when the questionnaire is sent to a distribution that may include non-qualifying people, or when qualifying respondents
cannot be easily segregated in advance. In this case, all the prospective respondents were individually targeted, so the problem did not arise.

The first field research question requires validation and adjustment if necessary of the proposed list of stakeholder groups. This requires the questionnaire to provide the proposed list with a request to confirm, adjust or extend it, and a place to record any observations. It was felt that this would be much better than simply asking an open question of the form “how would you define your principal stakeholders” for several reasons. Firstly the respondent might not think of all the possibilities during the interview; secondly it would be necessary to analyse the various synonyms used by different organisations, an exercise that had already been conducted on the literature. The proposed style of question therefore has the advantage of focusing attention without denying any opportunity to propose stakeholder groups that had not been previously thought of.

The second question required numerical evaluation by reference to the same list of stakeholder groups. The responses to this question are numerical and could be conveniently represented by a column adjacent to the list of stakeholder groups. The third question required rating against a simple four-choice list. The results could be represented as digits 0-3 in another column.

The fourth question was intended to clarify the reason for the significance of the stakeholder groups, but was not actually found to be helpful. It is mentioned here for completeness, but the responses do not feature in the analysis. Stakeholder groups may be of interest for either of two principal reasons. They may represent positive opportunities, for example nurturing customers may be expected to lead to improved business opportunities and improved organisational performance. They may also represent negative opportunities (control of penalties), for example failure to satisfy the requirements of statutory authorities may lead to financial penalties or loss of reputation which will impact on the overall performance of the organisation. This question was intended to clarify the reasoning behind the answers to the second
question and encourage the respondents to consider both aspects of the need to provide satisfaction. The results of this question are not related to the hypotheses and are not analysed.

The fifth question has a similar intent to the first question, in that it attempts to compose a list. The proposed list, offered for comment, was broken down according to stakeholder groups, but to avoid confusion with the earlier questions it was presented in a separate section of the questionnaire. It was not required that the respondents should attempt to quantify the importance of these satisfiers, only that they should consider whether they represent all the important factors that determine the satisfaction of the stakeholder groups. The same list of satisfiers was presented to all the respondents, so the data should indicate whether it may be possible to establish a common, generically-expressed list of performance indicators that encompass all the significant factors.

### 8.5.3 Verification of feasibility

It is strongly recommended (Hussey and Hussey, 1997, p163) that questionnaires are piloted before being used, preferably on a small sample which is representative of the main sample, in order to reduce the risk of serious error. Therefore before embarking on the main data collection, two preliminary phases were undertaken – an initial trial and a pilot. The initial trial comprised only one respondent which was a firm of accountants (ID 1 in the list of Appendix B); the pilot comprised seven respondents (ID 1-7 in the list of Appendix B). The following discusses the methods and the method-related findings of these preliminary tests. Details of the conduct and findings of the initial trial are presented in section 8.7.

There were particular reasons for choosing the firm of accountants for the initial trial. First, the respondent had a broad knowledge of financial and strategic issues across a number of trades and industries, and could be expected to provide a reliable indication of any serious difficulty that may be found in applying the method across a variety of other organisations. Secondly, the respondent was thoughtful and interested.
in the subject area, and could be relied upon to point out genuine problems instead of
giving glib answers. The information provided to this respondent was the same as that
provided to all the other respondents, so there could be no tendency for the data to be
biased by predicting any "right" answers.

The initial trial was conducted by interview, with the questionnaire papers copied for
ease of reference. This method was chosen because it was feasible for a single
respondent, and it was desired to afford the greatest opportunity for discussion.
Several important points arose during this trial:

- The nature of the questions is such that there is likely to be more difficulty
  answering them than is usual with business surveys. Therefore it would be
  necessary to guide the respondents through the questionnaire by personal or
  telephone interview. This supports the advice of Hussey and Hussey (1997,
p158).
- It would not be feasible to conduct the data collection by telephone or in
  person without the respondent having a copy of the questionnaire for
  reference.
- It would be necessary to provide some explanatory notes with the
  questionnaire in advance of interviews so that respondents could be prepared.
- Interviews could be expected to take not less than half an hour each, but this
  could be significantly extended if the respondent required further discussion.
- The original list of stakeholder groups contained 20 entries, in which
  customers and buyers were separately identified. It became clear during the
  trial that it was unnecessary to distinguish these groups as they both represent
  those who make and implement purchasing decisions. The name "customers"
  was retained, and the group was kept distinct from users and maintainers who
  have separately identifiable interests.
- The stakeholder group descriptions needed clarification.
- The synonyms were extended.
• Subject to some clarification in the phrasing of questions, and the provision of some illustrative examples in the supporting notes, the questions could be answered meaningfully, and numerical data could be collected for analysis.

These findings clearly supported the proposed method discussed in section 8.5.1. Following the initial trial, the questionnaire was adapted and the pilot conducted on a sample of seven organisations including the trial organisation. This was conducted using the telephone interview method discussed above. It was found that some additional explanation of the stakeholder groups was necessary, but the structure and questions could remain unaltered. Therefore the pilot could be considered as taking place under the same conditions as the main data collection, and the data could be incorporated into the main data for analysis.

As a result of the pilot it was found necessary in a few cases to illustrate the distinctions between certain of the stakeholder groups (especially customers, maintainers and users), and this was done using examples that were unrelated to the activities of the respondent so there was no possibility of "leading" the answers. Further observations related to the definitions of stakeholder groups are presented in chapter 9 from notes taken during the interviews.

Initially the respondents were encouraged to keep their own record of the answers to the questionnaire, and to provide a copy of their record by fax or email. This worked in some cases, but caused delays in others. Therefore for the main sample it was considered safer to keep a record of the answers and provide that to the respondents for confirmation afterwards. These and other issues were taken into account in a revised method for the main data collection.

8.6 ANALYSIS

Support for the first hypothesis is determined by two factors. First, whether the respondents were able to identify any stakeholder in their experience that did not fit
any of the descriptions of the list (question 1.1). Second, by considering any observations that may indicate that the list of stakeholder groups is not expressed in terms that are clearly understood.

The second hypothesis is tested by numerical analysis of the assigned values of importance (question 1.2). First, whether the respondents were able to assign numbers to all the groups (allowing for zero values to be assigned to groups that are genuinely of no importance in any particular case). Second, whether the assigned values are so similar across a range of entirely different organisations that there is no apparent opportunity for their strategic priorities to be distinguished. Thirdly, by statistical analysis, to establish whether there is a general pattern of priorities, and whether that pattern indicates significant differences between the private, public and not-for-profit sectors. It might be expected, from their different methods of funding, and the tendency in the literature for publications to focus on one sector or another, that there may be strong tendencies to differ, and it is of interest to discover whether this is the case. As an extension to this, the assigned values of involvement are to be analysed to see whether there is an obvious empirical relationship between importance and involvement.

The third hypothesis is tested by numerical analysis of the assigned values of involvement (question 1.3). Statistical analysis is used to establish whether there is a general pattern of commitment priorities related to stakeholder groups. By comparing the relative rankings of stakeholder groups in respect of importance and involvement, and charting the number of stakeholder groups showing different variations in ranking, the correlation between importance and involvement can be determined.

The fourth hypothesis is tested by considering the observations raised in question 1.5. It is not expected that a universal set of satisfiers will be determined, especially on the basis of a sample of this size. However, it should be possible to obtain an indication of whether, with broader participation such a list may be feasible and used as a stakeholder-related performance scorecard. Depending on the nature of responses
from different organisations, it may be possible, alternatively, to show that it is possible for any organisation to specify for itself a generic set of satisfiers from which an organisation-specific scorecard can be designed.

8.7 INITIAL TRIAL

This was used as a preliminary exercise to determine the feasibility of the proposed data collection method. As such it represents an important contribution to the validity of the method. Only respondent 1 (see Appendix B) was used, and the results are not featured in the final analysis. The test survey was conducted by interview without prior discussion or distribution of material.

The interview took an hour, which was considered too long for the main survey. This was partly due to discussion of related topics, which was not hurried in case it should reveal anything of interest. Several comments were made relating to the terms used to describe stakeholders, and amendments were agreed which were considered suitably generic. More importantly, there was some difficulty in distinguishing the different roles that may be played by an individual. It was difficult to convey the popular conception of a customer as a collection of separate roles which need to be kept distinct for analytical clarity.

In an environment where the customer and user are almost always the same person or organisation, it was found necessary to emphasise the distinction. Thus the customer is that aspect of the person or organisation that is approached or otherwise cultivated to establish or develop a relationship (which relates mostly to selling and marketing), while the user is the aspect that represents the beneficiary of the goods or service, which relates mostly to the quality and suitability of the deliverable and associated support. As this separation is considered important, it was necessary to convey it more clearly, and the group descriptions were amended accordingly. The initial list of groups distinguished the roles of customer and buyer, but these were combined to produce the list of 19 groups that was used for the pilot and main surveys.
As a result of this interview it was decided that the survey could be conducted by telephone if details were provided in advance. Coupled with changes to the descriptions and synonyms, it was felt that this would enable future interviews to be conducted in a shorter time.

8.8 CONCLUSIONS

The chosen method of field research is designed to test the first four hypotheses proposed in chapter 6. The method and research instrument have been described in sufficient detail to indicate how they meet this requirement, and have been tested to provide confidence in their feasibility.

The requirements for data variables has been presented with specific attention to the requirements implied by the hypotheses as well as the methodology explained in chapter 7. The development of the data collection instrument, including the design requirements, representation of variables and administration have been explained in relation to recommended methods and the particular requirements of this field research.

The required analysis has also been discussed, so there is a clearly specified relationship between the data and the basis for support for the hypotheses. This chapter has therefore established a sound basis for the conduct of the field research and the analysis of its findings.

8.9 FURTHER RESEARCH

In relation to the breadth of application of this research, it would be interesting to discover whether this research method and instrument could reveal patterns related to other variables such as organisation size, scope, maturity and trade/industry. This
could possibly lead to the development of a framework for general or industry-specific benchmarks. The available sample was too small to provide sufficient data at this time, but this is a matter that could be pursued by further research on a much larger scale.

In relation to the depth of the field research it would be interesting to discover, through the use of a case study, how the satisfiers could be developed into a performance scorecard. Also, how that could be used as a means of connecting the strategic priorities of an organisation to the measurable operational performance as part of an improvement cycle incorporating strategic deployment and performance feedback. These issues are considered in hypotheses 5 and 6 of chapter 6, and are the subject of the organisational performance model developed in chapters 10 and 11.
CHAPTER 9

FIELD RESEARCH RESULTS

The field research method of chapter 8 discussed the sample (shown in Appendix B) and the research instrument, which is the questionnaire and supporting information shown in Appendices D and E. The method and questionnaire were designed to test the first four hypotheses presented in chapter 6, and in this chapter the results are presented, analysed and discussed.

The results show that, within the limitations of the sample size (an issue discussed more fully in chapter 8) the hypotheses are well supported. Also, the statistical analysis shows that while there are variations between the principal sectors (private, public and not-for-profit) these variations are not as strong as might be expected. This indicates that, even though the literature tends to be differentiated between these sectors, the stakeholder-related structure is not only generally applicable, but there is a large degree of commonality of values.

Given the opportunity to extend the research sample on a much larger scale, the method of data collection and analysis could reveal more precise indications of differences or commonality. These could apply not only to the principal sectors, but to size, scope (local, regional, national or multi-national) and trade or industry.
9.1 INTRODUCTION

The results of the field research defined in chapter 8 are presented here and discussed in relation to the first four hypotheses presented in chapter 6. The presentation and analysis follows the sequence of questions in the questionnaire (Appendix D).¹

Some of the data was collected in the form of numbers, and others in the form of observations or uncommented approval. The nature of the data and the method of analysis are discussed. The analysis of numerical data is presented graphically and explained in the text. The chapter concludes with a discussion of the findings in relation to the hypotheses and some observations on further research.

9.2 RESPONDENT DETAILS

Prior to completing the main questionnaire, respondent details were recorded on the form presented in Appendix C. This information, summarised in Appendix B, provided the basis for analysis by sector, size and scope. The distribution is shown graphically in chapter 8, where it is determined that analysis by size and scope is not appropriate for this sample.

In the literature review of chapter 2 it was found that mission statements do not normally constitute a sufficient basis for determining an organisation's strategy. Even though the sample was small, it was thought worthwhile to establish whether there

¹ The background, method and results of this field research have been presented at conference. For further details see: Grossi, P.C., Harwood, D.J. and Rowlands, H. (2005) "Determining Organisational Success Through Stakeholder Analysis". Presented at Philosophy of Management 05, St. Anne's College, Oxford, 2005
was any substantial evidence in contradiction of this, so the respondents were asked to indicate whether they published a mission statement. Only half the organisations, predominantly in the large and medium sized categories, had a published mission statement, and those were generally published in the annual statement of accounts. Therefore it is concluded that this sample did not show any substantial reason for revising the finding of the literature review.

9.3 STAKEHOLDER GROUP LIST COMPLETENESS

Question 1.1 of the questionnaire, reproduced in Appendix D, required the respondents to identify any stakeholder that was not represented in the list of groups. There were no new contributions, but there were some observations that required clarification of the group descriptions, and suggested some changes in the conduct of the questionnaire. These are summarised as follows:

9.3.1 Pilot survey

This was conducted with respondents 1 – 7 by conducted by telephone, and the results were returned by post or fax. This method incurred several problems:

- One of the responses was lost in the post (respondent 5). The data was recovered by telephone interview having emailed a fresh copy of the questionnaire, although this incurred more than a week’s delay.
- One of the responses was delayed in the post by several weeks (respondent 3). While several attempts were made to recover the information by telephone, this was not convenient for the respondent.
- One of the responses was faxed illegibly, and had to be re-sent. The original return had been retained by the respondent, so minimal delay was incurred.
- Some of the respondents had difficulty with the questions, and needed further explanation (respondents 4, 5 and 6). Two others (respondents 1 and 2) were interested in discussing the questions and the background to the project. In
each case, to avoid “leading” the respondents, illustrations were discussed which were unrelated to the nature of the respondents’ organisations. In two cases it was convenient to conduct the survey by telephone interview, and in one case (respondent 4) it was more convenient to meet.

- All of the respondents (except respondent 7) needed prompting to complete the questionnaire. Part of the problem is that they are all busy people, with many other things to deal with. It is expected that this will usually be the case for people in positions of sufficient responsibility to be of interest in this research.

These observations indicate that it would probably be more reliable to email the questionnaires and responses instead of using mail. This would also make it convenient for the respondent to keep a copy of their return, but it has the disadvantage that email may not be convenient for all respondents. After some consideration it was decided to use email for the main survey, but to retain a copy during the telephone interview. The procedure is detailed in chapter 8.

The telephone interviews took about 30 minutes each, not including for any extended discussion on related topics. It was considered important to allow the respondents to discuss any related issues in order to afford them the greatest opportunity to comment on the method or relevance of the survey.

While the 19 stakeholder groups covered all the requirements of the organisations surveyed in the pilot, the meanings of the stakeholder groups varied for the different types of organisations. The following observations were made.

- Respondent 1 considered banks more as customers than lenders. This arises from their role as advisors in support of financial planning. After some discussion it was considered that the requirements of lending institutions would need to be divided into the two separate roles – at times they act as lenders to the company, and at other times they act as representatives of their
customers or users. Similar considerations arise with government and regulators, which are at times to be satisfied as such by the company, and at other times they are the recipients of information provided on behalf of their customers.

- Respondent 2 was concerned with influencing regulators and having access to regional or European funds, and suggested that politicians should be considered as an additional group of stakeholders. This was discussed, but afterwards it was considered that these people should remain in the category of government and regulators. The reason is that, while many organisations do not actively lobby or campaign for changes at individual or sectoral level (except perhaps through their professional or trade associations), such activity can be considered as a normal part of a two-way relationship. It can be argued that lobbying or being represented at meetings is a means of satisfying the needs of the regulators in terms of their understanding the requirements or vulnerabilities of the organisation. There are examples in the literature of people forming “interest groups” to affect regional decisions concerning the environment, but there is no suggestion that the targets of their influence should be defined separately from the local or regional government.

- Respondent 6 pointed out that the term “parent” could possibly be mistaken for a personal relationship rather than that of organisations. This merited a clarification in the description.

9.3.2 Main survey

No further significant observations were received from the remaining respondents, using the amended stakeholder group list from the pilot survey. Therefore the field research supported the first part of the first hypothesis by demonstrating that it is possible to define a standardised set of stakeholder groups that can be applied to a wide variety of organisations.
9.4 ANALYSIS OF STAKEHOLDER GROUP IMPORTANCE

9.4.1 Raw data

Table 9.1 shows the raw data collected for all 14 respondents; the columns are each numbered with the respondent identity and are arranged in sector groups. The first point of note is that all the respondents were able to assign numerical values in the range 0-10 as required by the questionnaire question 1.2. This indicates that the relative importance of the groups could be approximately assessed without particular difficulty, and that these numerical values could be used as a profile of each organisation.
It can be seen in table 9.1 that some of the stakeholder groups (notably investors, lenders, parents and subsidiaries) attract a comparatively large number of zero scores; this is to be expected where organisations are not part of a trading group or are not dependent on non-trading sources of funds.
9.4.2 Statistics

Basic statistics derived from table 9.1 are shown in table 9.2. They provide an analysis of the individual sectors as well as a breakdown for comparison by sector.

<table>
<thead>
<tr>
<th>Stakeholder group</th>
<th>Total Max, Min, Var, Ave SD</th>
<th>Rank Ave P r ./ Ave P n. Ave N</th>
</tr>
</thead>
<tbody>
<tr>
<td>Community</td>
<td>83 78 125 76 34 89 100 50 40 8.25 4.60</td>
<td></td>
</tr>
<tr>
<td>Competitors</td>
<td>10 10 2 2 2 2 2 2 2 8.25 5.60</td>
<td></td>
</tr>
<tr>
<td>Customers</td>
<td>10 10 2 2 2 2 2 2 2 8.25 5.60</td>
<td></td>
</tr>
<tr>
<td>Directors</td>
<td>10 10 2 2 2 2 2 2 2 8.25 5.60</td>
<td></td>
</tr>
<tr>
<td>Employees</td>
<td>10 10 2 2 2 2 2 2 2 8.25 5.60</td>
<td></td>
</tr>
<tr>
<td>Environment</td>
<td>10 10 2 2 2 2 2 2 2 8.25 5.60</td>
<td></td>
</tr>
<tr>
<td>Government and regulators</td>
<td>10 10 2 2 2 2 2 2 2 8.25 5.60</td>
<td></td>
</tr>
<tr>
<td>Investors</td>
<td>10 10 2 2 2 2 2 2 2 8.25 5.60</td>
<td></td>
</tr>
<tr>
<td>Lenders</td>
<td>10 10 2 2 2 2 2 2 2 8.25 5.60</td>
<td></td>
</tr>
<tr>
<td>Maintainers</td>
<td>10 10 2 2 2 2 2 2 2 8.25 5.60</td>
<td></td>
</tr>
<tr>
<td>Parents</td>
<td>10 10 2 2 2 2 2 2 2 8.25 5.60</td>
<td></td>
</tr>
<tr>
<td>Partners</td>
<td>10 10 2 2 2 2 2 2 2 8.25 5.60</td>
<td></td>
</tr>
<tr>
<td>Public media</td>
<td>10 10 2 2 2 2 2 2 2 8.25 5.60</td>
<td></td>
</tr>
<tr>
<td>Security</td>
<td>10 10 2 2 2 2 2 2 2 8.25 5.60</td>
<td></td>
</tr>
<tr>
<td>Suppliers</td>
<td>10 10 2 2 2 2 2 2 2 8.25 5.60</td>
<td></td>
</tr>
<tr>
<td>Trade associations</td>
<td>10 10 2 2 2 2 2 2 2 8.25 5.60</td>
<td></td>
</tr>
<tr>
<td>Users</td>
<td>10 10 2 2 2 2 2 2 2 8.25 5.60</td>
<td></td>
</tr>
</tbody>
</table>

Table 9.2: Basic Statistics for Stakeholder Importance

Some of these figures are shown graphically in figure 9.1. The average and standard deviation of each stakeholder group is shown as a stacked bar chart arranged in descending order of average importance.
Figure 9.1: Average and Standard Deviation of Stakeholder Importance

Figure 9.1 shows the highest average scores combined with comparatively low standard deviations for employees, users and customers, which indicates that these stakeholders are generally of greatest importance to all organisations. The lowest averages combined with higher standard deviations are shown for investors, parents, lenders and subsidiaries, which indicates that these stakeholders are only of importance to organisations committed to independent suppliers of finance, or are part of a trading group.
9.4.3 Sectors

This data for importance shows that, while it is feasible to establish a structure for analysis by stakeholder groups and there is some commonality in the underlying pattern, there are substantial variations between organisations. With a sample of this size it was not considered useful to attempt an analysis by size or scope, but as the sample was well spread across the three sectors it was considered interesting to determine whether the data indicated significant variation between sectors. Because the data could be collected in ratio form it was possible to use Pearson's Product Moment Correlation Coefficient (Pearson's r) which is a more precise indicator than those available for ranked or nominal data. Table 9.3 shows the calculated values.

<table>
<thead>
<tr>
<th>Sector</th>
<th>Respondent</th>
<th>1</th>
<th>4</th>
<th>6</th>
<th>8</th>
<th>9</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Correlation with sample</td>
<td>0.702</td>
<td>0.790</td>
<td>0.799</td>
<td>0.841</td>
<td>0.773</td>
</tr>
<tr>
<td></td>
<td>Correlation with sector</td>
<td>0.722</td>
<td>0.774</td>
<td>0.917</td>
<td>0.891</td>
<td>0.879</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Sector</th>
<th>Respondent</th>
<th>2</th>
<th>7</th>
<th>11</th>
<th>12</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Correlation with sample</td>
<td>0.746</td>
<td>0.386</td>
<td>0.807</td>
<td>0.889</td>
</tr>
<tr>
<td></td>
<td>Correlation with sector</td>
<td>0.769</td>
<td>0.568</td>
<td>0.917</td>
<td>0.932</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Sector</th>
<th>Respondent</th>
<th>3</th>
<th>5</th>
<th>10</th>
<th>13</th>
<th>14</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Correlation with sample</td>
<td>0.538</td>
<td>0.724</td>
<td>0.688</td>
<td>0.850</td>
<td>0.780</td>
</tr>
<tr>
<td></td>
<td>Correlation with sector</td>
<td>0.665</td>
<td>0.703</td>
<td>0.686</td>
<td>0.902</td>
<td>0.831</td>
</tr>
</tbody>
</table>

Table 9.3: Pearson's r of Stakeholder Importance by Sector
Figure 9.2 shows the correlation for each respondent, in the same sequence, with the sample as a whole, compared with their own sector average. One set of values represents the correlation between each subject and its own sector, and the other set shows the correlation with the sample as a whole. It can be seen that in most cases there is a higher correlation within sectors, although there are several counter examples. This is summarised by sector in figure 9.3, which shows that, on average, there is quite a small difference between the correlation of an organisation's own profile with the sample as a whole and its own sector. This might at first seem surprising because it would be expected that the priorities of public organisations would be substantially different from those of private companies or charities. However, by defining a generally applicable framework for measurement, it is found that there is, after all, a great deal in common.

Put another way, there are almost as many significant variations between organisations within a sector as there are between them and other sectors. This suggests that it is inappropriate to propose a benchmark profile for each sector as there is apparently such a high level of necessary variation between the members of each one. This does not mean that benchmark profiles could not be proposed for more closely defined populations, such as particular trades, but norms of this nature would have to be carefully researched using a much larger sample, taking care not to confuse other factors such as size and scope (and other factors not considered in this analysis, such as maturity, nationality, and age, sex and qualifications of workforce, etc) which may be significant.
Figure 9.2: Correlation of Sample and Sector Averages for Importance

Figure 9.3: Average of Correlations for Importance by Sector
9.5 ANALYSIS OF STAKEHOLDER GROUP INVOLVEMENT

9.5.1 Raw data

Table 9.4 shows the raw data collected for all 14 respondents in relation to question 1.3; the columns are each numbered with the respondent identity and are arranged in sector groups. The assigned values for this data set range from 0 - 3.

<table>
<thead>
<tr>
<th>Respondent</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
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<th>10</th>
<th>11</th>
<th>12</th>
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<th>14</th>
</tr>
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<tbody>
<tr>
<td>1</td>
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<td>2</td>
<td>1</td>
<td>1</td>
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</tr>
</tbody>
</table>

Table 9.4: Raw data for Stakeholder Involvement
9.5.2 Statistics

Basic statistics derived from table 9.4 are shown in table 9.5. They provide an analysis of the individual sectors as well as a breakdown for comparison by sector.

<table>
<thead>
<tr>
<th>Sector group</th>
<th>Ave</th>
<th>Max</th>
<th>Min</th>
<th>Std</th>
<th>Sigma</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Community</td>
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<td>1.66</td>
<td>0.13</td>
<td>0.42</td>
<td>0.63</td>
</tr>
<tr>
<td>Competitors</td>
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<td>0.10</td>
<td>0.07</td>
<td>0.15</td>
<td>0.20</td>
</tr>
<tr>
<td>Customers</td>
<td>0.09</td>
<td>0.12</td>
<td>0.08</td>
<td>0.16</td>
<td>0.22</td>
</tr>
<tr>
<td>Directors</td>
<td>0.30</td>
<td>0.42</td>
<td>0.20</td>
<td>0.50</td>
<td>0.70</td>
</tr>
<tr>
<td>Employees</td>
<td>0.06</td>
<td>0.08</td>
<td>0.04</td>
<td>0.06</td>
<td>0.12</td>
</tr>
<tr>
<td>Environment</td>
<td>0.20</td>
<td>0.25</td>
<td>0.13</td>
<td>0.35</td>
<td>0.50</td>
</tr>
<tr>
<td>Government and regulators</td>
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<td>0.40</td>
<td>0.20</td>
<td>0.50</td>
<td>0.70</td>
</tr>
<tr>
<td>Infrastructure</td>
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<td>0.08</td>
<td>0.04</td>
<td>0.06</td>
<td>0.12</td>
</tr>
<tr>
<td>Investors</td>
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<td>0.30</td>
<td>0.15</td>
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</tr>
<tr>
<td>Maintainers</td>
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<td>0.30</td>
<td>0.15</td>
<td>0.35</td>
<td>0.50</td>
</tr>
<tr>
<td>Partners</td>
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<td>0.30</td>
<td>0.15</td>
<td>0.35</td>
<td>0.50</td>
</tr>
<tr>
<td>Public media</td>
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<td>0.10</td>
<td>0.06</td>
<td>0.12</td>
<td>0.18</td>
</tr>
<tr>
<td>Security</td>
<td>0.06</td>
<td>0.08</td>
<td>0.04</td>
<td>0.06</td>
<td>0.12</td>
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<tr>
<td>Subsidiaries</td>
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<td>0.30</td>
<td>0.15</td>
<td>0.35</td>
<td>0.50</td>
</tr>
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<td>Suppliers</td>
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<td>0.08</td>
<td>0.04</td>
<td>0.06</td>
<td>0.12</td>
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<tr>
<td>Trade associations</td>
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<td>0.30</td>
<td>0.15</td>
<td>0.35</td>
<td>0.50</td>
</tr>
<tr>
<td>Users</td>
<td>0.20</td>
<td>0.30</td>
<td>0.15</td>
<td>0.35</td>
<td>0.50</td>
</tr>
</tbody>
</table>

Table 9.5: Basic Statistics for Stakeholder Involvement

Some of these figures are shown graphically in figure 9.4. The average and standard deviation of each stakeholder group is shown as a stacked bar chart arranged in descending order of average involvement.
Figure 9.4 shows some similarities with the chart of stakeholder importance. Employees, users and customers are still high on the list and show comparatively small variations. Investors, lenders, parents and subsidiaries are again low on the list and show comparatively large variations. This provides a general indication that the organisations expect to be more flexible in their relationships with the stakeholder groups that they consider to be most important. A notable exception is the group for Government and Regulators, which rank high in importance but seven ranks lower in involvement. This could be ascribed to the limited opportunity for most organisations to negotiate more efficient relationships when interface requirements are set without consultation by the stakeholders. A more unexpected variation is in the relationships with suppliers, which show a ranking six places higher for involvement than for importance. This may indicate the comparative ease with which organisations can
negotiate mutually efficient trading arrangements; the emphasis is on “comparative” as the rankings are only comparative indicators. It might be wondered why customers do not seem to attract a similar effort to achieve mutual efficiency, but the charts of figures 9.1 and 9.4 show that customers are already very high on both scales. Also the charts in figures 9.1 and 9.4 show that the averages for suppliers are very close to those of other stakeholders, so a small variation in value could result in a disproportionately large variation in ranking. Therefore, care has to be taken in assigning a high level of significance to this result. The need to interpret the ranked data by reference to the original ratio data illustrates the importance of having collected the original data in ratio form rather than on an ordinal scale of relative value.

![Figure 9.5: Variation in Rankings Between Importance and Involvement](image)

The variations in ranking between the average for importance and the average for involvement are shown as an aggregate statistic in the chart of figure 9.5. It can be seen that the greater number of stakeholder groups either retain the same ranking or show only a single step difference. The same chart also shows the two extreme cases discussed above.
9.5.3 Sectors

This data for involvement shows, as for importance, that there is some commonality in the underlying pattern, but there are substantial variations between organisations. Again, it was considered interesting to determine whether the data indicated significant variation between sectors, and a similar method of analysis was used.

<table>
<thead>
<tr>
<th>Sector</th>
<th>Correlation with sample</th>
<th>Correlation with sector</th>
<th>Correlation with importance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Respondent</td>
<td>1</td>
<td>4</td>
<td>6</td>
</tr>
<tr>
<td>Pr</td>
<td>0.643</td>
<td>0.816</td>
<td>0.729</td>
</tr>
<tr>
<td>Pr</td>
<td>0.754</td>
<td>0.725</td>
<td>0.918</td>
</tr>
<tr>
<td>Pr</td>
<td>0.745</td>
<td>0.612</td>
<td>0.551</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Sector</th>
<th>Correlation with sample</th>
<th>Correlation with sector</th>
<th>Correlation with importance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Respondent</td>
<td>2</td>
<td>7</td>
<td>11</td>
</tr>
<tr>
<td>Pu</td>
<td>0.766</td>
<td>0.485</td>
<td>0.579</td>
</tr>
<tr>
<td>Pu</td>
<td>0.866</td>
<td>0.747</td>
<td>0.823</td>
</tr>
<tr>
<td>Pu</td>
<td>0.691</td>
<td>0.548</td>
<td>0.845</td>
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<table>
<thead>
<tr>
<th>Sector</th>
<th>Correlation with sample</th>
<th>Correlation with sector</th>
<th>Correlation with importance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Respondent</td>
<td>10</td>
<td>3</td>
<td>5</td>
</tr>
<tr>
<td>N</td>
<td>0.651</td>
<td>0.384</td>
<td>0.645</td>
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<td>0.716</td>
<td>0.595</td>
<td>0.605</td>
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<tr>
<td>N</td>
<td>0.405</td>
<td>0.253</td>
<td>0.639</td>
</tr>
</tbody>
</table>

Table 9.6: Pearson’s r of Stakeholder Involvement by Sector
Figure 9.6 shows the correlation for each respondent in the same sequence with the sample as a whole compared with their own sector average and with the values of importance. It can be seen that in most cases there is a higher correlation within sectors, although there are several counter examples as with the statistics of importance. Generally, however, the correlation between involvement and importance is noticeably lower. This is summarised by sector in figure 9.7, where it can be seen that the sectoral correlations are very similar to those of importance. However, the variations between sectors are more apparent, with those of the not-for-profit sector being noticeably lower than the others, especially in the relationship between importance and involvement. This may be a characteristic of the way organisations in that sector are managed, or a necessary consequence of the nature of their stakeholder relationships, but the cause cannot be discovered from the data available in this field research.

![Figure 9.6: Correlation of Sample and Sector Averages for Involvement](image-url)

Figure 9.6: Correlation of Sample and Sector Averages for Involvement
9.6 STAKEHOLDER SATISFIERS

For each stakeholder group a short list of generic satisfiers was proposed in the questionnaire. The method of preparing this list is discussed in chapter 8, section 8.2. Each of these satisfiers represents a measurable performance indicator which bears on the relationship with the stakeholder. The respondents were asked to comment on this list in question 1.5 of the questionnaire.

There were few comments. This may be because the respondents were more familiar with the conventional financial and/or production measures of performance, and were not attuned to the concept of measuring performance from an external viewpoint. However, several comments were received, which indicated that, as for the stakeholder groups, each item in the list needed to be interpreted in the context of the organisation.

One of the respondents (ID 7) returned the list marked with the relative importance of each item. This was not required for the survey (principally because it was not expected that the respondents would have the time or patience to provide it), but demonstrated that it is feasible to designate levels of importance to the different
satisfiers, and thereby allow priorities to be used in resolving conflicts. For the other respondents (IDs 1, 2) other than clarifying remarks related to the specific measures of particular organisations, the following observations were recorded:

- Support for community projects. This was not expressed in terms that relate easily to measured performance, unless the simple measure of cash or cash-equivalent goods or services is used. However, that does not measure the effectiveness of the result. This is perhaps an issue where each organisation can specify their satisfiers in terms of named projects, each with appropriate measures of achievement.

- Quality of product was mentioned in relation to customers, but this is perhaps more related to users and maintainers where generic issues are already mentioned. Quality is a concept that means many things to different people, and has to be broken down into specific measures to be clearly understood and realisable.

- Government and regulators also collect statistical information which is not necessarily mandatory.

This implies that, while the generic list was found to be comprehensive in the survey, in order to apply it to any organisation there needs to be additional information which is prepared at operational level to provide specific guidance on the significant performance issues.

This part of the survey therefore discovered that generic satisfiers can be usefully assigned to the different stakeholder groups, and they can also be prioritised, but it must be possible for any organisation to clarify and possibly extend that list for its own purposes. The list of satisfiers was not specific as regards the measures and methods of measurement applying, and these can also be expected to vary according to the operational environment and the required stakeholder relationships. Therefore the list needs to be extended with additional information related to performance measures.
9.7 SIGNIFICANCE TO THE HYPOTHESES

The field research data and statistical analysis strongly supports the first hypothesis - "a standardised list of stakeholder groups can be defined and meaningfully interpreted and applied to all organisations". The same list of stakeholder groups was used for the whole sample, which comprised widely varying organisations, and there was no particular difficulty in each organisation assigning a numerical assessment to the importance of each group.

The field research also strongly supports the second hypothesis - "any organisation can define its strategic priorities as a profile in numerical terms related to these stakeholder groups, and be compared with others on a statistical basis". The data were statistically analysed and it was found that the analysis was meaningful. On the one hand there was significant variation between organisations, which is to be expected where they operate in such different markets and environments. On the other, the pattern of variations which emerge from the numerical analysis, which shows greatest commonality in the groups that can be expected to be generally important, reflects the sort of differences that might be reasonably anticipated. The field research has therefore demonstrated the application of numerical analysis to the interpretation of organisational values.

The field research also strongly supports the third hypothesis - "An organisation can be expected to be more involved in seeking efficient relationships with the stakeholder groups that it perceives as being more important.". The data were statistically analysed and it was found that the relative rankings of the stakeholder groups correlated well with the stated involvement in streamlining their relationships. Only two stakeholder groups were placed significantly differently in the two analyses: one can be accounted for by the close perception of values which allows an apparently large variation in ranking with a small variation in value; the other related to a stakeholder group that is not easily amenable to process negotiation. The field
research has therefore demonstrated support for a positive correlation between importance and involvement.

The field research also provided partial support for the fourth hypothesis - "for each stakeholder group a standardised list of satisfiers can be defined in terms that permit meaningful data collection and organisational review". The proposed list of satisfiers was found to be comprehensive as a start point, although it could no doubt be improved by further discussion among a wider range of organisations. The survey did not discuss methods of data collection or review, but the method of expression of the satisfiers lends itself to having specific measures assigned. There was also an indication that the measures could be prioritised, which suggests that they could be combined by some form of weighting algorithm. This could possibly produce a set of values which can be compared with the organisation’s strategic requirements as part of a review.

9.8 CONCLUSIONS AND DISCUSSION

In the discussion on methodology in chapter 7 it was considered that an overall phenomenological approach should be taken. Ontologically this recognises the importance of subjective perceptions of stakeholder relationships, and the tendency for subjective values to be used as drivers of those relationships. While many different ideas about stakeholders were expressed in the literature it was not clear whether it would be possible to formalise those ideas into a structure that could be used to analyse and represent the required or actual relationships of an organisation. This led to the hypotheses presented in chapter 6, which suggest that stakeholder concepts could be of value in analysing organisational performance. But before any firm patterns or norms could be proposed this needed to be approached initially using inductive inference in order to clarify the issues involved.

It was then proposed in chapter 8 that this would be best investigated using a grounded research method, where a small number of organisations could be
interviewed to provide indicative supporting data. The sample size did not permit
generalisation of the findings across all organisations, but it was sufficient to provide
a useful and relevant analysis, which is now discussed.

Different organisations have different relationships with stakeholder groups. For
example, government agencies are simply enforcers for some organisations, while for
others they are agents of revenue as well. In specifying a set of stakeholder groups it
is important that they are not simply named in the hope that there will be an adequate
common understanding of the required relationship with the organisation. It is
necessary to provide synonyms for clarity where the common usage of names varies,
and vital to provide a full description which is at the same time unspecific to trade or
sector, but provides unambiguous indications of their generic relationships.

The field research has supported the hypotheses. In doing so it has indicated that it is
possible to use a defined set of stakeholder groups to represent an organisation's
strategic priorities, and possibly act as a basis for benchmarking organisations of
particular types or industries. This has been extended by defining stakeholder
satisfiers, which provide a connection between the stakeholder groups and
measurable performance indicators. As these satisfiers can be expressed in generic
terms, it may be possible to extend the benchmarking right down to performance
priorities.

In the context of this thesis, performance measures need to be related to operational
activity so that the analysis of those measures can be used to expose variations
between the required and actual performance of the organisation, and to seek
opportunities for improvement. BS6143 (BSi, 1992) defines a process as “any activity
that transforms inputs into outputs, utilising resources and being subject to particular
controls”. ISO9001:2000 (2000) requires that the operations of a compliant
organisation are defined in terms of processes, and those processes are shown as
being interconnected, but it does not require a compliant organisation to define
processes for non-operational activities, such as paying shareholders. But the
definition of processes implies that, whether or not they are documented as such, non-operational activities that are required to produce some sort of output can be regarded as processes in any case.

Where an organisation can be defined as a collection of processes then the performance measures, consistent with the definition of a process presented in BS6143 (BSi, 1992) and IDEF0 (NIST, 1993) should be defined as part of the output requirements of those processes. This indicates that, as the EFQM Excellence Model separates results from enablers, it should be possible to define a similar demarcation between stakeholder-related performance measures and process-related mechanisms. The essential difference between these approaches would be that a more structured and comprehensive view is taken of the stakeholders and their requirements (a weakness of the EFQM model identified in section 5.6.2 of chapter 5). This is no trivial consideration: the value of any improvement model is fundamentally dependent on the relevance of the performance measures, from which gaps and targets are determined by analysis, and which form a key element of an improvement cycle. Such an approach would also clarify the distinction between external measures for the evaluation of organisational performance, and internal efficiency considerations. This emphasises the importance of directly evaluating stakeholder perceptions instead of assuming that compliant outputs from processes are necessarily perceived to be of value by the stakeholders. This in turn supports the principles of Lean and process efficiency by focussing the organisation on those things that are known to be of greatest actual (rather than assumed) value. This research has indicated that it is feasible to support such a model by defining performance measures from an external viewpoint using a stakeholder framework, and that such a framework can be systematically connected to the expression of strategic values for the organisation as a whole.

These issues are discussed further in chapter 10, in which they are represented as requirements for a stakeholder based performance model. This is pursued further in
chapter 11 in which a model is defined that addresses the fifth and sixth hypotheses of chapter 6.
In the literature review of chapter 5, popular models for the representation of organisational performance were examined, and a number of weaknesses were discovered. Some of those weaknesses concerned the usefulness and reliability of the models in their manner of analysing and representing performance data, and some of those weaknesses related to modelling methodology, as exemplified in related fields of activity.

Also in chapter 5 it was found that, instead of approaching the performance measurement problem from the point of view of taking the traditional, financially based structure and extending it to overcome apparent weaknesses, it may be feasible to approach the problem again from the beginning. By developing the concept of stakeholders as beneficiaries of the organisation, a set of performance requirements, measures and indicators can be constructed to form a stakeholder based performance measurement model. Such a model would consider all stakeholders equally, according to their needs and the required relationship to the organisation, and no assumptions need to be made about the pre-eminence of financial (or any other) considerations.

This chapter lays the foundations for such a model by considering the factors that must be considered in its concept and design. It takes into account the foregoing factors as well as the methodology developed in section 7.7.4 of chapter 7. The model developed on this basis is fully described in chapter 11.
10.1 INTRODUCTION

This chapter starts by considering the purposes of management and the dependence of effective management on an appropriate system of performance measurement and review. A connection is established between organisational performance measurement and organisational learning theory, in particular in relation to single-loop and double-loop learning. On this basis the need is demonstrated for a performance measurement and review model that incorporates the benefits of double-loop learning. This is discussed in relation to established popular models: the Balanced Scorecard, the EFQM Excellence Model and QFD. Modelling theory is then explored as a three- or four-layered architecture. This clarifies the internal structure of models, and thereby the relationship between modelling systems and learning systems.

The communication of strategic requirements within an organisation is considered as one of the purposes of a performance measurement model, together with the need for responsive performance indicators to support a continual improvement cycle. The possibility of using stakeholders as representatives of strategic requirements, and also as the basis for defining performance indicators, is developed and shown to be a relevant approach to resolving the communication and improvement problems.

The relationship between performance measures and processes is discussed. It is shown that the conceptual use of processes as a feature of a performance model does not require a cross-functional organisation structure, and is applicable whether or not an organisation formally documents all its activities as processes. This enables, in principle, a stakeholder based performance model to be connected via performance measures and analysis into the structure of activities, through which an improvement cycle can be maintained. Thus, it is shown that a stakeholder based performance model can provide the sought-for connections between strategic requirements, responsive performance indicators and continual...
improvement. Finally, the theory of modelling is considered, and its precepts are
used to define the requirements for validity and reliability.

10.2 BACKGROUND TO ORGANISATION PERFORMANCE
MODELLING

10.2.1 The connection between management and measurement

According to Drucker (1955) the purposes of management are decisions and
actions; without management, resources are not directed to become productive
output and are wasted. While he proposes that management is primarily required to
support economic objectives, it has already been established in the literature
review of chapters 2-5 that a measurement system based entirely on economic
objectives is not necessarily the best way of supporting management. However, his
contention that effective management depends on the acquisition of organised
knowledge (a term that is tautological, but emphasises the importance of validity
in the context of application), and the systematic analysis of the manager's own
performance, and his contention that the ultimate test of management is business
performance, have not been seriously contested. While these core values have been
explored and interpreted in many ways since, they remain as true today as they
were fifty years ago.

It follows that, if the performance of an organisation depends on the decisions and
actions of management, and they in turn depend on the acquisition of organised
knowledge, then there is a strong logical relationship between organisational
performance and the collection, analysis and presentation of relevant information.
For the purposes of this thesis, the word "business" has been broadened to
"organisation", on the principle that, by removing the assumption of pre-eminence
of economic objectives, the underlying precepts of effective management can be
applied to social and environmental bodies, and encompass the private, public and
not-for-profit sectors. Furthermore, if the measure of management performance is
derived from measurements of organisational performance, and it depends on systematic analysis, then a feedback chain is logically implied.

This is not unlike the PDCA loop subsequently popularised by W. Edwards Deming, and more recently adopted as a core mechanism in popular ISO management standards, in which it becomes clear that there is no purpose in performance measurement and analysis within an organisation unless it leads to action. However, the PDCA loop depends on one more logical concept, which is that, having made a change, the loop should be repeated. While the measurement-analysis-decision-action chain can be implemented as an isolated response to some stimulus, there is a need to ensure that the action has been effective. At organisational level there is a reasonable assumption that no organisation is perfect, so, however good an organisation might be, there is always advantage to be gained by looking for opportunities for improvement. These concepts in effect close the loop, partly by requiring that the effect of an action is assessed to ensure that it was effective, partly by routinely seeking further opportunities for improvement, and partly by responding to new information (e.g. changes in the legislative or operational environment).

In considering the five competitive forces of Porter (1985), which are existing competitors, buyers, suppliers, potential entrants and substitutes, an organisation is faced with constant, externally enforced demands to remain competitive, and those demands are continually changing as other organisations seek to improve their own competitive positions. While Porter’s model does not show legislation as a competitive force, this does restrict operational freedoms, and is also subject to continual change. On this basis, while some loops may respond to a stimulus, turn and die because the original stimulus is then found to be countered, others are part of an organisational review process which has to be responsive to a continually changing external environment. Therefore, if the justification for performance data collection and analysis depends on its use for stimulating improvement, and that improvement is required to be a continual process at organisational level, it
follows that performance measurement at organisational level needs to be part of a continual improvement loop. This implies that any model that is intended to define a structure for organisational performance measurement needs to be compatible with continual organisational improvement, even if it does not embody the entire loop.

10.2.2 The connection between measurement and learning

De Geus (1988) expresses the view that we live in “a world in which the ability to learn faster than competitors may be the only sustainable competitive advantage”, and that learning without the power to act on it is of no value. Tushman and Nadler (1986) express the view that “there is no executive task more vital and demanding than the sustained management of innovation and change”. These views indicate that there is no clearly defined line dividing continual improvement from organisational learning. This suggests that the precepts of organisational learning should be considered in relation to performance improvement, and therefore performance measurement.

Theories concerning organisational learning (Argyris and Schon, 1985; Senge, 1990 and 1993) indicate that it is not enough to establish a learning mechanism that simply responds to problems within a static framework - it is also required to consider the effectiveness of the framework itself, and to find ways of improving that as well. In the context of organisational performance measurement, if the model specifies that certain indicators are measured and those measurements are to be analysed in a particular way, then if those indicators lose their validity in time then the model also loses its validity, and its contribution to the continual improvement process is compromised. There are two ways of overcoming this problem: either design the model so that it does not specify the data collection method or the method of analysis, so it avoids the question of validity; or design the model so that the validity of its findings are checked as part of a double-loop learning process that stimulates improvements to the design or implementation of the model itself.
The former approach is obviously less complicated and makes it easier to define the model. This approach is taken, for example, by the EFQM Excellence Model, and the Balanced Scorecard. These models specify in general terms what is to be represented in each case but do not include as part of the model design a mechanism for determining on a continual basis the validity of the specified measures. QFD, while providing a much more specific structure for the representation and analysis of data, is not intended to be part of a continual improvement process, and therefore does not require a double-loop learning architecture. Thus, while each of these represents a method of establishing performance metrics, they are essentially single-loop learning models.

The latter approach requires an inbuilt mechanism for evaluating the validity of the implementation or interpretation of the model itself. Certain of the ISO management standards (ISO9001:2000, 2000; ISO14001:2004, 2004; ISO27001:2005, 2005), while not claiming to be models, illustrate the concept of embodying a review process that validates the implementation and stimulates continual improvement to it. In this sense, these standards represent a recursive form of implementation. Thus, if competitive forces or legislative requirements change, then if those changes are not picked up and dealt with as event-driven requirements, they will (if the system is implemented properly) soon be discovered as part of a routine review (or the auditing process, which is required to be connected into the overall review). The ISO standards do not specify in detail the operational performance measures and indicators, or the methods of data collection and analysis, because the standards are intended to apply to a wide range of organisations for which the needs are entirely different. But this does not mean that the structure of an ISO standard is open to revision at the point of implementation, or that an organisation can avoid defining the performance measures and indicators appropriate to itself. By specifying a requirement for reviewing the implementation of the model, not only does this give each organisation the necessary flexibility to adapt to its own environment, but it
enforces a learning process that is intended to ensure that the organisation makes effective use of that flexibility.

However, if an organisation fails to understand the needs of its operating environment, or fails to apply the most appropriate measures and analysis, or the environment becomes unsupportable, then it can still fail to achieve its necessary objectives. The standards do not demand that an organisation survives, only that it makes the best possible effort within defined parameters. No matter how good a standard or a model may be, so long as there is room for decisions within the management function, there is necessarily room for the wrong ones to be made.

**10.2.3 Models as a layered architecture**

The modelling architecture so far discussed can be represented in three levels or layers. The lowest layer is the data and its presentation; the middle layer is the data structure or description, otherwise known as the meta-data, and the model implementation; the upper layer is the generalised model, which describes the application or context of the meta-data in such terms that it transcends the implementation variations. Thus, the top layer might specify that delivery performance is required to be measured, and how it fits into the organisational performance measurement structure; the middle layer might correspondingly define, in the context of the organisation implementing the model, what delivery performance is, how it is represented as a value or statistic, and how the data is collected; the lower layer would then contain the actual collected data and the analysed performance results, which are then fed into the operational decision processes.

In a continual improvement model the lower layer is routinely and repetitively updated, and fresh data collected and made available at appropriate intervals for the support of operational decisions. These intervals might be annually, quarterly, monthly, weekly, daily or at the end of each production batch or contract. The middle layer only changes when it is decided that different measurements or...
different analyses need to be performed. In a double-loop learning environment this layer would be subject to change if there is evidence to indicate that it is not adequately supporting the required decision processes, but such changes might be ad hoc. The top layer not only determines what goes into the middle layer, but how and when it is reviewed. Thus, while a double-loop learning environment can be implemented by changing the interpretation of the model when it is found necessary, a modelling architecture that properly supports double-loop learning will contain within the upper layer the mechanism for ensuring that the middle layer is reviewed and changed in a systematic way.

There also exists the concept of a fourth layer, which is exemplified in the architecture of the Unified Modelling Language (UML). UML is primarily intended as a means of representing the operational characteristics of a system. It is not a systems analysis method, and neither is it a software development process although the notation is intended to clarify and express the requirements of a system in terms that can be conveniently translated into software development specifications. This architecture (Bennett et al., 2001; Eriksson, 2004) is composed of a collection of models which were previously used independently. These models have been adopted as a multi-view structure in which they each represent a view or perspective which complements the others. Just as a set of constructional drawings would represent the same building in the form of elevations, electrical installations, plumbing, landscaping, etc., each using different drawings with different notations, so UML uses a variety of notations to represent the different static and dynamic aspects of the system to be modelled. The overall system (the top, fourth layer) defines a set of rules which ensures that each part of the model is clear and distinct. Thus, anybody implementing UML can, if they wish, define their own models within the overall architecture, and use them alongside or in place of the standard ones. While many implementers of UML may only use the standard component models, the controlled extensibility is regarded as a fundamentally important feature of the modelling architecture.
If such a four-layer architecture were to be applied to the Balanced Scorecard, then, while the four existing perspectives would be specified, as in the existing model, there would be an additional feature that allowed other perspectives to be optionally added, for example to meet the specific requirements for environmental or social objectives. The overall model would then be required to specify how these additional perspectives are to be defined, and how they could interact. Then, organisations could invent their own perspectives within a controlled architecture, and even make them available through professional networks or the academic community.

Similar considerations could also apply to the EFQM Excellence Model, but both of these models are proprietary in nature and they are each conceived as a complete, closed system. Therefore neither of them has been designed to be extended in this way. For example, Van der Woerd and van den Brinck (2004) offer some ideas on adapting the Balanced Scorecard to incorporate sustainability, but find it necessary to substantially alter the design of the model in respect of the original perspectives. While any organisation may adapt the models for its own use, such variations diverge from the original specifications and therefore potentially invalidate any theoretical justification for adopting the models.

### 10.3 PURPOSES OF THE MODEL

In the literature review of chapter 4, section 4.3 it was found that problems can arise where there is a lack of communication between those who determine the organisational objectives and strategy, and those who are required to implement them. To overcome these problems there not only needs to be a communication mechanism, but the communicated content needs to be expressed in terms that can be understood by all parties. A model that defines a structure for information that, on one hand, connects to the organisational strategic aims and, on the other, expresses measurable operational performance, can be expected to make a significant contribution to overcoming the problems of strategic communication.
In chapter 2, section 2.2 it was also found that the traditional financial measures of performance are lagging indicators, and they may also be aggregated to such an extent that their meaning is obscured to those who make operational decisions. A performance model needs to provide a structure in which organisational requirements can be decomposed into elements that can relate to operational decisions, and can act as a guide or support, rather than only as a post hoc analysis. Dahlgaard and Dahlgaard (2002) find that goal setting by consultation vertically within an organisation is important to the successful implementation of Total Quality Management (TQM), not just because it communicates an understanding of the requirements, which invites commitment, but because it enables the goal-setting to be attentive to the realistic possibilities.

Stata (1989) shows that the rate of learning in an organisation is exponential to the "perfect" outcome (e.g. zero defects), and the exponent depends on the rate of learning of those involved, which also depends on the frequency of the review cycle; the more frequently the situation is reviewed, the more rapidly the organisation adapts to improve it. This is consistent with the half-life approach to quality improvement presented by Schneiderman (1988). Therefore, if the model is to support continual improvement then, rather than an occasional performance status indication, the model structure also needs to embody performance indicators that respond rapidly and locally to operational decisions and actions. But these indicators must also be related to the organisational objectives, as shown in the previous paragraph.

Chapter 3 concluded that it should be possible to define a performance model that is based on stakeholders, but this depended on the possibility that stakeholder groups could be suitably defined, and their particular interests classified. This was then pursued through the hypotheses of chapter 6 and the field research of chapters 8 and 9. It was discovered that it is possible to define the outputs of an organisation in terms of stakeholders, characterised in terms of a generalised set of
groups that could be applied widely across many different types of organisation. It was also found that an organisation could define its strategic priorities in terms of those groups, and in a numerical, easily communicable form. And it was found that for each of those groups it is possible to define a set of satisfiers which represent measurable characteristics of the required relationships with the organisation.

These considerations indicate that by using stakeholders as a structural component of a performance model, there is the possibility of providing the required connection between organisational strategic requirements and measurable operational performance. The structure of stakeholders is not complicated, so a model founded on the principles explored in the earlier chapters should be capable of providing the required clarity of communication between strategic requirements and operational measures. According to Oakland (2001, p246) “performance must begin to be measured by performance improvements seen by the customer”. This is a limited viewpoint that considers only the customers as stakeholders, but it makes sense, when considering a more comprehensive performance model, to apply the same principle across the complete range of stakeholder groups. In other words, as far as possible, performance indicators need to measure the perceptions of stakeholders directly, rather than using assumptions based on the measurement of organisational activity.

In section 9.8 of chapter 9 the relationship between performance measures and processes was discussed. It was shown that where an organisation has required outputs, then it can be defined in terms of one or more processes (BSi, 1992; NIST, 1993); and where those outputs can be measured, such measurements and their analysis can be related to the processes as part of a performance evaluation and feedback cycle. Norreklit (2000) shows how “the result indicator of an agent is the process indicator of the principal”, and points out their complementary relationship, in which the process performance indicators can be seen as a feed-forward mechanism (driving more efficient outputs), while result indicators can be
seen as a feedback mechanism (ensuring the outputs are relevant). This distinguishes between the performance measurements of processes (as agents in this context) and the true value as perceived by the stakeholders (as principals in this context). In clarifying the distinction between these two areas of performance measurement, this complementarity also points to the need for a clear and compatible relationship between them. If process feed forward and result feedback are to be part of the same control mechanism, this implies that the result feedback must be referred to those processes that can be identified as relevant precursors. Feedback that is not directed in this way would in one way or another be wasted or even counterproductive, not only wasting the resources used for data collection and analysis, but also wasting the improvement opportunity that is represented by the available data. This implies that a stakeholder related performance measurement system requires clear links into the operational processes, and a model that represents a stakeholder based performance improvement methodology would be incomplete without also representing those links.

In chapter 4, section 4.5 the literature related to organisational structures indicated that while some organisations prefer cross-functional structures, some prefer departmental structures and some a mixture of the two. However, in using the concept of processes to define organisational activities that generate outputs, there is no implication concerning the internal structures, and no particular structural form is required to validate the application of the process concept. The independence of organisational structure from the use of processes to define the activities of an organisation is inherent in the requirements of popular management standards. Therefore, a performance model that connects indicators to processes does not require to be validated by reference to the organisational structure, and does not necessarily imply a preferred or required structure.
10.4 THEORETICAL CONSIDERATIONS

In determining the requirements for the model, the above needs to be considered in relation to the modelling theory presented in chapter 5. It was found that the required type of model is symbolic, which allows it to be established as a parallel representation rather than an alternative real-life construction. The model is not required to have an analytical performance evaluation with a view to calculating the optimum performance parameters, but to provide a capability of comparing actual strategic and operational performance. The required model is also static in the sense that it is not intended to provide rate-of-change analysis or prediction that may be used for interpolation or extrapolation.

The model is required to represent a subjective “reality”, which is the degree of satisfaction perceived by the stakeholders. Construct validity therefore depends on identifying and representing this “reality” in terms of constructs or variables within the model. If the model is to provide an effective analytical link between stakeholders, strategic values and processes, these also need to be represented. Key variables within the model therefore include:

- A list of stakeholder groups, such as that researched in chapters 8 and 9.
- Representation of organisational strategic values in terms of stakeholder groups.
- A list of generic satisfiers, such as that researched in chapters 8 and 9.
- Indicators of satisfaction. These are needed to clarify the generic satisfiers in the context of the organisation’s particular relationships.
- Methods of data collection, which refer to the stakeholders rather than internal proxies.
- Methods of analysis which provide comparison between strategy and performance.
• Relevant processes, outputs from which can be related to the indicators of satisfaction.

Content validity is primarily concerned with the manner in which those variables are processed. While the field research of chapters 8 and 9 showed that the proposed list of stakeholders allowed strategic priorities to be defined for an organisation, it does not claim that list to be the only one possible. Similarly, while the list of satisfiers was found to represent all the potentially measurable generic factors in stakeholders’ perception of satisfaction, the field research does not claim that the list is complete. Neither can it be assumed that perceptions of satisfaction will remain static over time, or that the organisation’s strategic profile will not change.

Therefore, in the design of a representative model the recommended practice of iteration is to be adopted. This is not only to overcome difficulty in determining the variables with sufficient accuracy before using the model, but to recognise that circumstances constantly change, both internally and externally. This need to deal with continual change requires the iterative process to be a permanent part of the operation of the model, not only for its initial development. This is also entirely consistent with the principles of organisational learning, discussed in section 10.2.2, so in this sense the model represents an embodiment of those principles.

The reliability of the model depends upon the accuracy of data collection and analysis. In dealing with subjective data, it is necessary to take great care to ensure that suitable methods are used and that those methods are consistently applied. In other words, the model should not simply provide a structure for processing the data, but should define the manner of its collection as well. This is not so much of an issue with positivist models, as the definitions of the variables and the methods of collection are generally either statutory or normative. But this model depends on data that is not all conventionally defined, and therefore should not depend on unverified assumptions of validity or reliability.
Another issue related to validity concerns whether it is trusted. It is not enough for a model to be “right”, if people do not understand what it is telling them, or they are not sure that it is being correctly used. Therefore the model needs to be as simple in principle as possible, as complexity leads to misunderstanding and mistrust. It also needs to be transparent in operation, so people can judge whether they think that the right sources are used for the data and the processing makes sense. In a model based on subjectivity, and which permits its own constructs to be questioned and adapted, these perceptions are particularly important.

10.5 CONCLUSIONS

The feasibility of constructing a performance measurement model based on stakeholders has been established with reference to tested precepts, subject to the model being able to implement a number of requirements. These requirements are summarised as follows:

(1) The model needs to represent the feedback connection between performance indicators and organisation processes. This enables those responsible for the design and operation of those processes to understand and respond to their output requirements and the evidence for their achievement. This then enables the establishment of continual review cycles that lead to the improvement of process design as well as operational performance. By making suitable information available, the model can therefore support a double-loop learning process within the organisation.

(2) To achieve these things the model needs to exist in at least three layers, including: performance data (which is collected, analysed and reported according to the needs of the organisation and its review processes), organisation-specific interpretation of the model (which identifies the
particular relationships and indicators that are important), and the model
generalised structure or concept (which sets out the framework within
which organisation-specific variations can be adopted).

(3) The model should be recursive, incorporating a means of reviewing its own
performance, and informing those who are responsible for implementing it.
Thus, the implementation of the model for any organisation can be
continually improved as part of a learning process defined within the
application of the model.

(4) In measuring the overall performance of an organisation, the assumption of
financial pre-eminence should be avoided. Therefore the model needs to be
able to represent, without inherent bias, a comprehensive profile of values
for an organisation, including financial and other factors.

(5) A clear analytical connection is required between organisational strategic
values and precisely defined and responsive performance indicators. This
analytical connection needs to operate in two directions: downwards to
ensure that appropriate measures and indicators are used at operational
level in support of the required strategic objectives; and upwards to ensure
that those who are responsible for the overall performance of the
organisation are promptly and reliably informed in terms relevant to their
decision requirements.

(6) Considering the features listed in the literature review of chapter 5, section
5.5, and the issues of validity discussed in section 10.4, the model should
also be: simple in structure, transparent in operation, clearly presented and
robust to cope with real-life complications.

(7) The possibility of a fourth layer should be considered, in relation to which
the initial model (the first three layers) can be seen as an example of
interpretation. With reference to this layer variations and extensions to the initial model can be subsequently developed to encompass ideas that may not initially have been considered significant.

A model, or modelling system, based on the above requirements would have the necessary attributes for it to support the basic requirements of management, incorporating the principles of continual improvement, organisational learning and good modelling practice. This chapter has shown how these requirements have been applied to test popular organisational models, and demonstrated their capability of identifying strengths and weaknesses in those models. This is not to say that, because a model is shown to have weaknesses in relation to these requirements, the model is of little value, especially when considering the intended scope and purpose in each case. But it is important, when developing or applying any model, that a fair and realistic assessment of its strengths and limitations is available.

The above requirements represent a comprehensive, generalised basis for the assessment of any model that is defined to measure the overall performance of an organisation. These requirements are expressed in broadly applicable terms that do not restrict the means of expression of organisational strategic objectives; nor do they restrict the methods of data collection and analysis, or the management structure that may be appropriate according to the nature of an organisation.

The field research of chapters 8 and 9 indicates that stakeholder related concepts provide a possible basis for defining a set of strategic values, and shows how those values could be related to organisational performance measures. It remains to demonstrate the feasibility of constructing a model that uses those concepts in conjunction with the model design requirements listed above. This is the subject of chapter 11.
CHAPTER 11

THE PERFORMANCE BOUNDARY MODEL

Chapter 6 proposed hypotheses related to the development of stakeholder concepts, of which the first four were tested and discussed in chapters 8 and 9. The Performance Boundary Model continues the development of these concepts and addresses the remaining two hypotheses, which are restated here for convenience:

Hypothesis 5. It is possible to define a model in which the organisation is a separate entity to the stakeholder groups, such that the boundary represents a transformation between process outputs and stakeholder values.

Hypothesis 6. Based on stakeholder analysis, a model can be constructed that provides an effective analytical connection between organisational strategy and operational performance measurement.

In chapter 9 it was found that it is possible to use a defined set of stakeholder groups to represent an organisation’s strategic values, and to use this as the basis for defining a connection between those values and measurable performance indicators. By suggesting that there is a chain of connection from strategic values through stakeholder definitions and satisfiers to performance indicators, and that this connection may form part of a performance review process, the outline of a performance model was implied.

Before developing a performance measurement model based on these principles, some theoretical concepts needed to be clarified; in particular the relationships between continual improvement, organisational learning, and the communication of strategic values, as well as some generalised modelling principles. These concepts
were examined in detail in chapter 10, where the theoretical foundation for an organisational performance model was established, together with a clear set of requirements against which an organisational performance model can be evaluated. In this chapter a model is developed, based on those requirements\(^1\).

\(^1\) The background and principal elements of the Performance Boundary Model have been presented at conference. For further details see: Grossi, P.C., Rowlands, H. and Harwood, D.J. (2006) "Modelling Organisational Performance Using Stakeholder Objectivity". Presented at Performance Management Association Conference, Henley, 2006.
11.1 INTRODUCTION

The connections between strategic values, stakeholder definitions, processes and performance indicators are developed as constructs in the form of a modelling system that provides formal, analytical links between them. The modelling system also defines a structure for the measurement of organisational performance as part of a review process.

The generalised relationship between stakeholders and the organisation is discussed, and the need for a clearly defined boundary to separate them is presented. The boundary in this model is not simply a taxonomic delineator, but is a region in which outputs are converted into value. In a sense it represents an ontological translation between subjective (internal) and objective (external) perceptions, although it has to be recognised that so long as the organisation defines for itself those things it measures, and how it analyses them, a degree of subjectivity cannot be avoided. It is shown that this boundary needs to be doubly pervious: allowing value to be transmitted from the organisation to the stakeholders, and allowing evaluation of the stakeholder perceived value to be returned to the organisation for analysis and to promote continual improvement. The importance of processes as a representation of the organisation’s activities is presented in relation to the creation of value, and the need to correlate the different elements of perceived value with the processes that affect them.

The EFQM Excellence model, in the ninth criterion (Key Performance Results), offers share price and dividends as key performance outcomes, and these can be obviously related to the shareholder group of stakeholders. However the model also offers gross margin, net profit and management ratios, none of which clearly relate to stakeholders. Similarly, in the Balanced Scorecard, revenue growth and management ratios are offered as targets in the financial perspective. These indicators are basically derived from entries in a company’s final accounts, although for internal use they may be calculated more frequently than annually. As these may be regarded as
important internal indicators they merit some examination, and an explanation of how they fit in with a stakeholder based performance model. These indicators are intended not only to represent trading status, but also as data to be used in assessing and improving performance, so they are connected back into the processes that lead to their achievement. These issues raise the broader question of the relationship between financial assets and the resources required by the organisation to continue its value-adding activities. The examination in this chapter seeks to find where they have common ground, where they conflict, and how a model that measures the performance of an organisation through stakeholders can incorporate those assets that have a bearing on the creation of value. In this context, other assets than those represented in company accounts (and the aforementioned models), such as intellectual property, are also considered.

The nature of organisational processes is then examined in greater detail, in particular with regard to the destination of their various outputs. It is shown that, while some process outputs affect stakeholders, others are important contributions to the resources that enable value to be created in future, and yet others are used to transfer materials or information from one process to another as part of a cascaded value-adding structure. It is also shown that, in general, any process can be expected to provide all three of these output categories, and some common examples are used to illustrate these concepts.

The model is then presented as a complete structure, and the principal components and their relationships are defined in detail. This leads to a detailed examination of the measurement of organisational performance in relation to stakeholders, and the means of representing the overall performance in sufficient detail that it can be determined by direct measurement. Stakeholder groups, elements of satisfaction, and measurable performance indicators are shown as constructs within the model. The model is then shown to provide a transparent connection between the strategic requirements and the operational measures. The structure of measurements is then related to the operational processes by means of a matrix, and it is shown how
process owners can determine their stakeholder-related performance, and where they need to respond to changes in the performance requirements of the organisation. Finally, the model is reviewed with reference to the modelling requirements presented in section 10.4 of chapter 10, where it is found that the model is able to meet all those requirements.

11.2 SEPARATING STAKEHOLDERS FROM THE ORGANISATION

In the earlier chapters the relationships between stakeholders and the organisation were discussed. A requirement was identified for clarifying those relationships in terms of those things (referred to here as satisfiers) that may cause satisfaction or dissatisfaction, and for determining appropriate measures of required and actual performance in each case. It was also found that measuring processes is not the same thing as measuring stakeholder satisfaction: one relates to internal requirements, such as efficiency, while the other relates to the perception of value outside the organisation. The difference between these viewpoints is expressed in Quality Function Deployment (QFD), which is discussed in section 4.4 of chapter 4. This implies that a model that represents the requirements of all stakeholders should clearly distinguish the organisation itself from the stakeholders, but in such a way that the interactions between them can be expressed and analysed.

It was also found in the field research of chapters 8 and 9 that all the effects of an organisation become apparent through relationships with stakeholders in one way or another. These effects include financial, product and service performance, waste, peer interaction and others. This suggests that for the purposes of analysing overall organisation performance, the organisation can be envisaged as being contained within a region represented by stakeholders.

In a model that represents the organisation as a separate entity or domain within another domain representing stakeholders, the boundary between them is of great importance, as it defines the manner in which they can interact. In chapter 10 section
10.4 it was found that the model should be able to support continual feedback and review, but if the performance, as perceived by stakeholders, is to be analysed and acted upon by the organisation, these will need to be done by the organisation itself. This implies that data from the stakeholder-perceived performance indicators needs to have a path back through the boundary into the organisation, and into one or more processes that regulate the activities of the organisation. Thus, the boundary needs to be bi-directional, allowing the various effects of the organisation to leave it and enter the stakeholder domain, while evidence of perceived performance can be fed back. It is then up to the organisation to close the loop through analysis and review internally.

For this purpose employees, who have, in the literature review of chapter 3 and in the field research of chapters 8 and 9, been found to be important stakeholders, are not therefore excluded as stakeholders for the purposes of the model. This may appear to conflict with the view of staff as resources (or perhaps more humanely as agents acting through the organisation to provide satisfaction to themselves and other stakeholders), but this issue has already been discussed in the section on agency theory in chapter 3.

The boundary thus defined as notionally separating an organisation from its stakeholders is referred to for the remainder of this thesis as the Performance Boundary. In section 10.4 of chapter 10 it was found that, for analytical purposes, the organisation can be considered as a collection of processes, the outputs of which represent the products or services that impinge upon the stakeholders. The Performance Boundary thus represents the conversion between process outputs (which can be characterised by materials and information) and elements of satisfaction, which are intangible perceptions created within the stakeholders by the effects of the process outputs. Those elements of satisfaction are the same items as listed in the questionnaire of Appendix D (e.g. value for money, or promotion of cultural values) and discussed in the field research results of chapter 9.
The relationship between processes and elements of satisfaction can be complex, and while it may be possible in some instances to assign any element uniquely to a single process, this will not be true in the general case. The methodology of QFD, where product features and customer wants are translated into a matrix of process relationships, illustrates this within the context of a limited stakeholder perspective. Thus, each process can potentially influence a number of elements of satisfaction, and each element of satisfaction can be influenced by several processes. The Performance Boundary can therefore be imagined as a matrix, in which the intersection of a process and an element of satisfaction represents a component of the Performance Boundary; these components are referred to as Boundary Elements in this model.

While there are similarities between the Performance Boundary and the core principles of QFD, there are several important differences. The Performance Boundary represents all stakeholders, without any implied pre-eminence afforded to customers or any other stakeholder group; the flow through the boundary is bi-directional, in which the effects of the organisation flow outwards, while the evidence of value creation flows inwards; and both these flows are dynamic, in the sense that they are continual (if not continuous).

11.3 RESOURCES AND ASSETS

In the process models represented by IDEF0 (NIST, 1993) and BS6142 (BSi, 1992), resources are required to enable processes to be enacted. In a manufacturing context those resources may be production machinery, labour and site services, but in a general context, processes also depend on intellectual property (IP) and other forms of knowledge (tacit and documented). Some processes also depend on materials, which are represented separately in the process models, but as for present purposes it is not necessary to act on the distinction between these things, they are all considered here as resources. Resources also include other assets that can be deployed and converted as required by the organisation in order to produce its required outputs.
In financial terms (Simons, 1986) tangible resources are represented as assets of the organisation, as they can be converted into cash. However this is based on the assumption that the organisation is not a continual operation. For example, if production assets are liquidated, then production would cease and the company would be unable to conduct its business. Also there is a conflict between the financial view of stock as an asset, adding to the value of an organisation, and the Lean view (Womack and Jones, 1996) which considers any stock not actually being worked on as waste, and therefore a liability, not just in terms of diverting value but also through handling, storage, degradation and other costs and losses.

The valuation of fixed assets, such as production machinery, is generally calculated according to the purchase price and an allowance for depreciation, usually based on a linear or exponential scale. This also fails to represent the true value of a resource. For example, a new item may quickly become obsolete because of changes in production requirements, so a high “book” value may have a low production resource value. Also, an old item that has been completely written off in the balance sheet may still be producing output at the same level as when it was new.

While considering the narrow perspective of shareholders and lenders, their interest is generally in a working company as a continuing source of dividends, prospects of improved share value or fixed interest returns, so the representation of resources as liquidatable assets is no more than a form of ultimate security in case everything else should go awry. Also, while some intangible resources, such as goodwill, are shown as assets on a balance sheet, equally important resources, such as IP and other, less legally protected, forms of knowledge (e.g. processes, materials and markets), are not (Simons, 1986, p18).

Considering cash, even that does not represent value until it is dispensed, either as wages, payments to suppliers or other obligations. As cash it represents an asset waiting to be dispensed by conversion into a resource that can be acted upon by a process, and only then participate in the creation of value. But as soon as it is
dispensed it ceases to exist as cash, unlike production equipment or knowledge that are reusable and have continuing value even when they are used. So cash, as a resource, has limited value, even though it is shown as an asset on a balance sheet. Therefore cash, like unused stock or undelivered goods, represents a resource and (e.g. through depreciation) a source of wastefulness.

Thus, financial assets of various types do not represent value, only the potential to create value. Assets, however, do influence share prices, and therefore the prospective earnings of shareholders. But even that relationship is not a clear one: according to Barsky and Marchant (2000), Microsoft was valued at $US600bn in year 2000, while its total assets were valued at only $US45bn. Therefore, in considering the value of resources in support of processes, the standard financial representation of assets is not helpful, even when considering the specialised interests of investors as stakeholders in a continuing organisation. Finally, cash and certain other assets, such as property and shares, if they represent an investment, can be considered as inputs to a value-earning process. In such cases, and so long as their return is competitive against alternative deployment, they can be considered as resources.

Profit, another financial indicator of performance, is essentially the difference between income and expenditure in a commercial organisation. Therein lies the first problem – it has no meaning in a public or not-for-profit context, and therefore in relation to a model that is required to transcend sectors it is of limited usefulness. For non-commercial organisations there is an alternative concept of income vs expenditure for accounting purposes, but that is aimed to ensure that they are as similar as possible, rather than to maximise the difference between them.

Profit is an accounting artefact and can be misleading in relation to the ability of an organisation to create value. A company can be profitable, in terms of achieving sales output that exceeds production costs, but if that profit is required to pay off debt, or is needed to invest in plant or other assets, it may not be retained as cash. The issue in this case relates to time, where a period that appears to be profitable is offset against
an earlier or later period which was unprofitable. The analysis of profit can therefore be misleading unless an appropriate time interval is taken into account (which compromises the responsiveness of the model, as required according to chapter 10 section 10.5). Also a company may deliver poor quality items that, at a later time, have to be replaced or refunded, incurring warranty costs, or otherwise spoil the company's reputation. Kaplan and Norton (Kaplan and Norton 1996b, chapter 6) provide a warning against short-term cost savings leading to the neglect of sustained investments in people, systems and processes. Thus, the need to report high profits (e.g. in preparation of shareholder or investor reports) can encourage companies to take ill-advised risks, and compromise the creation of value and sustainability. This illustrates a distinction, and possible contradiction, between the measurement of process output in financial terms, and the measurement of perceived value.

Hysom (2001) defines knowledge as "information that leads to action that adds value". This view aligns with that of Zack (1999) and Stata (1989), and indicates that in a model that represents the creation of value, knowledge is to be seen as a resource. Also, its value as such has no bearing on whether or not it is represented as an asset in the company accounts. He also points out that information only has value when it is relevant, which implies that the value of knowledge as a resource would change according to the requirement for its use.

For the purposes of modelling the creation of value, and the manner in which it is communicated to stakeholders, resources do not require to be represented at the boundary between the organisation and its stakeholders. Instead, they need to be represented within the organisation such that they are in support of, and managed by, the organisation's processes. Also, as resources are created, maintained and destroyed by the action of processes, they represent outputs as well as inputs of those processes.
11.4 PROCESS OUTPUTS

Taking the above into account, process outputs may therefore be deployed in any of three ways:

- Through the cascaded relationship between processes, where the output of one is used as an input, control or resource of one or more others.
- To create or maintain resources that are available for later, possibly repeated, use by the same or other processes.
- To dispense to stakeholders for the creation of perceived value.

Process waste in the form of materials and documents represents a negative value contribution to the environment, which is represented by a stakeholder group. Process waste in the form of unused paid time, or the inefficient use of electronic resources, would not represent a process output at all, but would be taken into account when considering the efficiency of the process by comparing the total value of the three outputs with the total cost.

These process relationships are shown in Figure 11.1.
The following examples illustrate how this view of process outputs may apply to a variety of different processes. Reference is made, where required, to the list of stakeholder groups in the questionnaire of Appendix D.

### 11.4.1 Processing email

When processing email, a routine daily activity for many people, four possible outcomes may result:

- For junk email and spam, there is no useful output, and no environmental waste. Therefore this represents process waste (time) which only affects the process efficiency.
- Some items may provide information that is required to enable other tasks to be performed, in which cases the process supports a cascaded process relationship. However, for persistent junk mail correspondents, messages may be forwarded as information to staff who maintain the company email servers, so that they may amend the filters. In this case, the process provides outputs to a resource maintenance process which is part of an improvement cycle.
• Some items contain information that is retained because it is considered to be of possible later use. As such it represents a contribution to resources for use at some other time.
• Some items may contain information that is of use to stakeholders. It might be of value personally, or to a customer, or any of a number of other stakeholders. In this way the process creates value in the stakeholder domain.

11.4.2 Processing mail

Another routine daily activity for many people, from which four possible outcomes may result. These are basically the same as for email, except that junk mail has to be physically disposed of, and as such also represents a negative contribution to the environment as a stakeholder. According to its profile of values, and the severity of the problem, the organisation may take measures to minimise the environmental impact, such as recycling or feedback to the correspondents.

11.4.3 Purchasing materials

A purchasing process may use any of several forms of communication, including printed order, telephone, internet or fax. These represent different levels of efficiency as well as environmental impact.

• There are likely to be some process losses that affect efficiency, where time is wasted waiting for a fax line to become free, or a walk to the mail room, or a slow web page return.
• The result of placing the order may be immediately communicated to the finance department or the goods inwards department to prepare for receipt of invoice or goods, or to a production department with due dates for production planning. These outputs represent inputs to other processes.
• The order information, also updated pricing and availability data, would be kept on file, not only for processing the received goods and invoice but for
reference when placing future orders. This represents a process output into resources, even though the goods have not yet been received.

- The communication of order information represents value to the supplier as a stakeholder because it enables the supplier to do their job, and to add value to their suppliers in turn. The accuracy and clarity of the order information translates into satisfaction or dissatisfaction for the supplier, according to the time and trouble it represents for them. Also, the supplier gains satisfaction from the commitment to pay in due course. Depending on the means and frequency of communication there may also be an environmental impact, and this may be considered in relation to the profile of values for the organisation. Depending on the nature of the purchases and the local availability, an organisation may prioritise the use of local suppliers in support of the community. A company may also choose to favour another member of a trading group. Thus, the purchasing process can, in different ways, affect a number of stakeholder groups.

11.4.4 Telephone support

This may be a chargeable service by a consultant or support organisation, or a post-sale service by an organisation that provides other goods and services.

- Some time may be spent waiting for a question to be answered, or asking for clarification on some point. This represents process waste (time) which affects efficiency.
- It may be necessary to follow up the support session with an investigation, or a report to a colleague for further analysis or action. Therefore this process may provide inputs to other processes to follow on. If the service is chargeable, information is required from the support process for use by the accounts department.
- In a learning organisation, new situations and variations on support requirements represent new experiences, and these should be sublimated into information and knowledge. This may be retained either as an improved
understanding by the support person, or may be documented in the support record as a contribution to the organisation’s knowledge base. Either way, this represents an output to the resources.

- Satisfaction should have been achieved for the customer, user or maintainer stakeholder, through the resolution of their problem and/or an improved understanding for future use by them.

11.4.5 Product or service design

Whether conducted formally or informally, speculatively or under contract, all products and services need some design activity.

- Design can be very wasteful, not just on materials (discussed below) but many hours may be spent investigating possibilities that are eventually discarded. This features in the analysis of design efficiency. Some organisations expect to “invest” in apparently wasteful design processes because they encourage free thinking and produce occasional but worthwhile contributions to knowledge, which can be developed into valued products and services.

- Design process outputs are used by sales departments to develop the business, production departments for planning and budgeting, purchasing departments for component pre-sourcing, and others for training in preparation for production and support. In this way the outputs of a design process may connect to a number of other processes throughout the organisation.

- During a design process, the investigation and trials lead to the acquisition of knowledge that may be of value to future designs, as well as producing the required design details of the resulting product or service. In this way, a design process contributes to the resources of the organisation that are required to support production. Also, designs may represent licensable intellectual property (this can apply to products, services and processes), and therefore a resource that can be processed for sale as such.
• For contracted designs, the output may be provided for the satisfaction of an external stakeholder. Also, as it represents new knowledge and the experience of achievement in the mind of the designer, it contributes to their satisfaction as a stakeholder. The design may also improve the environmental impact of a product or service, and it may affect the community and other stakeholders. The design process may also produce material waste (discarded prototypes or experimental process materials) that affect the environment. While some of these effects may be indirect, they may be promoted or discouraged as design policy according to the value profile of the organisation.

11.4.6 Sales order processing

As for purchasing, this process may use any of several forms of communication.

• Process waste that affects efficiency may arise from the provision of incomplete or inaccurate order details, which need to be checked and renegotiated, or changes in availability of products or services that have to be referred back to the customer.

• The order may be immediately communicated to the production department for planning or purchasing, and the finance department for invoicing. These outputs represent inputs to other processes.

• The order information, with any new or revised customer details, would be kept on file, not only for processing the order but for subsequent sales analysis, which may be part of an improvement process. The order also represents a commitment to pay in due course. These represent process outputs into resources, even though production has not yet started.

• The communication of product and pricing information represents value to the customer as a stakeholder because it enables them to do their job. The accuracy and clarity of this information, as well as the means offered for communicating orders, translates into satisfaction or dissatisfaction for the customer according to the time and trouble it represents for them. Depending
on the means and frequency of communication there may also be an environmental impact, and this may be considered in relation to the profile of values for the organisation.

11.4.7 Production

This is considered here in the broad context of being the principal value-creating process of an organisation. It may relate to the provision of products or services.

- Production waste, other than materials, is commonplace, and is studied especially in Kaizen, Lean, TQM and other initiatives. Examples include: wasted movement, handling, processing and defects.
- Production may require several sequential processes, the output of one feeding the input of another. The sequence usually terminates in a delivery process of some sort.
- Work-in-progress may be represented as part-finished goods, subassemblies or part-finished contracts. These are created as outputs of processes and represent resources in terms of materials or prerequisites available for further processing when required. Financially, they may be valued at cost, but as a ready-to-use production resource they may have a higher value as an enabler of rapid response contracts. The Production Funnel (New, 1974; Hines et al., 2000 pp21-22) studies the economics of managing variety in production systems, and the optimisation of product or process design. Resource value may also be represented, in terms of intellectual property and process knowledge, by the learning aspects of production. The evaluation of this depends on how repetitive or creative the production processes are.
- Production creates value for employees through job satisfaction and career development, and eventually to customers, users and/or maintainers who realise the value of the products or services in use. The environment may be affected by waste or by-products, and the community may be affected by noise, light pollution, traffic etc. All of these represent stakeholder interests.
that are affected by production policies, and these can be related to the organisation's stakeholder value profile.

Many other examples of processes can be analysed in this way, including production-related processes and administrative or service-related processes. However, the above represents a varied selection in support of the modelling concept that processes produce any combination (usually all) of three categories of outputs, together with some waste of an intangible or abstract nature such as time.

11.5 THE MODEL

The foregoing introduces the central role of the boundary between an organisation and its stakeholders, and the manner in which it separates the measurement of process performance from that of value creation. The Performance Boundary therefore represents a unique structural characteristic of the model described in this chapter, and it is for this reason that the model is called the Performance Boundary Model. For the remainder of this chapter, in the interests of brevity, this will be referred to simply as the model.

The model is represented diagrammatically in figure 11.2. It is shown as a concentric model to represent the enclosing relationships between the main components, each of which is clarified and further defined in terms of suitable analytical constructs.

11.5.1 The stakeholder domain

The stakeholder domain contains all the stakeholders. In earlier chapters, stakeholders were discussed in relation to groups, through which their interests and requirements could be characterised. In Figure 11.2 the stakeholder domain is not shown as segmented in this way because it would imply that, at the boundary with processes, there is a tendency for each process to serve only one stakeholder group. Also it would imply that any stakeholder (represented by a point in the domain) is related to
only one group, which was found not to be the case in the literature review of chapter 3.

![Figure 11.2: The Performance Boundary Model](image)

Therefore, while the stakeholder domain is shown as a single, continuous space, the model takes into account the use of stakeholder groups to categorise their interests, and therefore recognises groups as required constructs of the model. In earlier chapters it was found that stakeholder groups each have satisfiers which are intended to be met by the organisation, and against which the performance of the organisation can therefore be evaluated; these are also represented as constructs of the model.

In this regard, the stakeholder domain also needs to define the performance measures that are applicable to each stakeholder group and the methods of analysis, so that they can be used to compile a complete picture of the performance of the organisation in relation to the stakeholders. Therefore the model also needs to include constructs that represent the performance measures and analytical methods related to each stakeholder group. To support the analysis of performance measures it is also necessary to define the nature and origins of the performance data, together with the methods of data collection. These are therefore also required to be represented as constructs related to the stakeholder domain within the model.
These requirements, taken as a complete view of stakeholder performance measurement, can be seen to form a structure. The overall performance is constructed from the satisfaction of stakeholders, which in turn is constructed from the performance in relation to a number of detailed indicators. In relation to that structure, there is no implied pre-eminence of any stakeholder group – each is considered entirely independently according to its merits as required by the value profile of the organisation. In this manner the model conforms to the requirement 10.5 (4) of chapter 10.

11.5.2 The performance boundary

This has been discussed in section 11.2. The Performance Boundary is required to define the connections from processes to stakeholders so that the design and operation of the processes can be focussed on the creation of value in the outputs of the organisation. The boundary, conversely, identifies the connections from stakeholders to processes, so that measurements of value perceived in the stakeholder domain can be communicated as feedback into processes in support of a continual improvement system.

The Performance Boundary needs to make no assumptions about how many stakeholder groups may be affected by a process, or how many processes may combine to affect a particular stakeholder group. Therefore in a manner similar to the central relationships of QFD, it can be viewed as a matrix with rows representing stakeholder groups and measures, and columns representing processes.

11.5.3 Processes

The organisation processes, as detailed in Figure 11.1, represent the mechanisms that act on resources to create outputs that feed into the Performance Boundary or resources. However, in order to satisfy the model requirements specified in section 10.4 of chapter 10, there are other considerations.
Firstly, there needs to be a capability within each process to receive feedback on output performance and to respond by correcting and preventing errors or performance shortfalls (section 10.5 (1)). This needs to be accompanied by a self-learning capability that reviews organisational targets and seeks opportunities for the improvement of those targets and the design of processes. This relates to the double-loop learning requirement, as well as supporting compliance with the management standard ISO9001:2000 (2000) in terms of management review and auditing. The mechanism for these capabilities does not need to be specified in the definition of the model, other than stating that when the model is implemented appropriate provisions are made. This relates to the self-reviewing capability of the model as discussed below in relation to the requirement of section 10.5 (3).

In support of a three-layer model (section 10.5 (2)), having already considered the lower layer which comprises operational data, there needs to be a mechanism for defining the middle layer, which is the interpretation of the model in the context of the particular organisation. Each organisation has different stakeholder priorities, represented by different target markets and relationships with other organisations, and these have been discussed in the field research of chapter 9. Also, as different organisations have different outputs that are used for different purposes, it is necessary for each organisation to specify its own strategic requirements. Also, in sections 11.3 and 11.4 the need for resources, and their evaluation for the purposes of investment, was considered, and this also can be expected to vary not only between organisations but from time to time as well.

The organisation therefore needs to define for itself the nature of the stakeholder performance indicators and appropriate data collection and analysis methods, as well as the nature and evaluation criteria for its resources. These are discussed in greater detail in section 11.6.

A recursive model (section 10.5 (3)) requires that the implementation of the model is itself reviewed to ensure that it is correctly and completely implemented, and is
providing the required support for the organisation. It was mentioned in section 11.1 that if an organisation defines its own measures and targets the result is necessarily subjective, even though every effort may be made to be objective in the manner of data collection and analysis. Thus, if the wrong things are measured, or the performance indicators are systematically misinterpreted, the model may within itself appear to be operating correctly, but it may inadvertently be leading the organisation away from its intended purposes. This problem is recognised in ISO9001:2000 (2000), which specifies the need for a process that reviews the implementation of a management system from top management level. The standard also requires the review process to be supported by an auditing procedure that is defined in detail.

This topic relates to the middle layer of the model, which is the implementation of the model for a particular organisation, as discussed earlier in this section. It requires that, having set up the model according to the needs of the organisation, there is a strategic review process that verifies that the performance analysis is meaningful, and that it is resulting in the successful achievement of the defined vision and mission. This implies a requirement for a separate review process that may involve external assessment by marketing, financial, environmental, human resource, management systems or other specialist advisors.

**II.5.4 Resources**

Resources, being accessed only through processes, are shown as being contained logically within the process domain. The nature of resources, and their distinction from financial assets, has already been discussed in section 11.3.

While the model is intended to provide a means of measuring an organisation's performance through stakeholders, it is possible, by concentrating on short-term measures, to neglect the value of investment in those resources necessary to meet future requirements. This applies especially to medium and long term reusable resources such as intellectual property and process knowledge, and is discussed in relation to the Balanced Scorecard in section 2.2 of chapter 2.
This can be overcome in this model by evaluating the resources, not simply as financial assets, but in terms of their potential usefulness in support of the creation of value in future. The differences between asset valuation and resource value are discussed in section 11.3. Taking a balanced view of resource value and stakeholder value enables the organisation to address its short or long term goals or necessities, and to be responsive to prevailing circumstances. The analysis of cash flow for product innovation (Boston Consulting Group, 2005) indicates a negative trend until the product gets to market, a period of profitability during which the accumulated "debt" is recovered, a period of low investment and high returns, and finally a decline into obsolescence. These phases have been described, rather more colourfully, as: "problem child", "rising star", "cash cow" and "dead dog". A sustainable organisation needs to balance its portfolio so that the cash cows finance the problem children and there is a continual replenishment of profitable products and services. In this sense the resources of the organisation, as defined in this model, represent a repository which allows innovation (in products, services and processes) to be valued and therefore supported by strategic investment, when set against the competing demands of short term financial indicators such as profitability.

Kaplan and Norton (1996a) point out three stages in the lifetime of a company: growth, which requires a high investment in resources (including product and process knowledge, infrastructure and supporting systems, production equipment, supplier and customer development, and other relationships), coupled with a low production value output; sustain, where the company produces value that balances the continued investment in resources, and represents a sustainable operation overall; and harvest, where the company is ending its useful life, and the resources are being exploited for what they are worth with minimal investment. These three stages represent three clearly distinct strategies which affect the balance of process outputs between creation of value for stakeholders and the development or maintenance of resources.
Resources therefore are to be seen not just in terms of their intrinsic value. The foregoing considerations require a much more sophisticated view than simply their cost, replacement value or disposal value. Hysom (2001) points out that committing investment to new knowledge depends on having a value for it. This principle is applicable to production equipment and other resources, so when deciding whether and how to invest in resources, consideration should be given to their lifetime value in support of process outputs.

Finally, in relation to resources, their value may decline not only by being used up (as in the case of materials) but they may also suffer wastage. This may take any of a number of forms, including: reduced efficiency (or increased maintenance cost) in ageing production equipment; devaluation of cash; obsolescence of product or process knowledge, which may also take the form of “knowledge entropy” as described by Argyris and Schon (1985) in relation to staff turnover; competitive IP leading to reduced market value; etc. This source of waste is not shown in Figure 11.1 as it is less tangible than process waste, but when assessing the performance of an organisation it indicates the need to value resources at current and future productive value, and the parameters that affect this assessment can be expected to change for a number of reasons in the short and long term.

The incorporation of resources into the structure of the model, having defined their relationships with processes, overcomes any tendency for the model to be considered as a static or historical representation, or one that fails to properly consider the future needs of a continuing organisation. The implementation of the model (the middle layer) requires that they are specified for the organisation in detail, together with the policies for their evaluation.
11.6 THE PERFORMANCE CALCULATION STRUCTURE

11.6.1 Stakeholder group performance

Whether or not benchmarks are used for comparison, any feedback and review process requires consistency and objectivity in the methods of measurement and in the analysis of results – otherwise there can be no reliable indication of performance change or progress towards targets. This is discussed in the literature relating to research methods in terms of reliability and validity (Hussey and Hussey, 1997, chapter 6).

If the overall performance is represented as a single number, it will suffer from some of the same problems as the conventional financial performance metrics, principally that the figure disguises its origins and it becomes difficult to identify which contribution needs the most urgent attention to secure overall improvements. To provide the necessary dualism the model represents the performance of an organisation as a set of entries representing the stakeholder groups. In section 11.5.3 the requirement for feedback of performance data into processes was discussed, in terms of enabling improvements, not only in the operations but in the strategy as well. This was discussed in terms of the requirements of quality systems and organisational learning theory, but there is further support for the need to have targets for comparison. According to Cyert and March (1992), learning and improvement is founded on there being an apparent performance gap to stimulate it, which implies that there must be a continual performance collection and analysis activity if the learning and improvement process is to be continual. De Geus (1988) suggests that organisations only learn and improve if they feel pain, which implies that the performance data collection and analysis must be connected to a review process that will exert pressure of one sort or another where the performance is below the required standard.
Therefore if analysis is to be structured in three levels, as described in section 11.5.1 (overall performance for each stakeholder group, performance against a breakdown of measures within each group, and detailed performance against individually measurable indicators) there needs to be a similar structure defining performance targets for comparison. If this is not the case then either the organisation will lack a means of communicating strategic targets which can be translated into operational performance requirements (top-down management), or the strategy will be pursued without effective validation (bottom-up feedback). In either case there will be a disconnection between the values pursued by the operational processes, and the values pursued by the organisation as whole, which can only lead to wastage or lost opportunity. Therefore the model includes, for comparison, the representation of a set of strategic values such as those analysed in chapter 9.

The performance of the organisation in respect of any group needs to be assessed in an objective and reliable way, so the model must provide for the specification of the relevant contributing factors and the manner of their calculation. The basis for this has already been suggested in the field research of chapters 8 and 9 and the questionnaire of Appendix D, in the form of elements of satisfaction that can be related to the groups. Thus, the performance in relation to customers could take into account the product/service quality, low price, reliability of supply and other things. Thus, the middle layer in the structure of performance measurement can be represented by the elements of satisfaction already proposed.

It is immediately apparent that the elements of satisfaction not only have different priorities for different organisations (for example, some organisations may be in a more price sensitive market than others), but are measured in very different ways. Product/service quality itself may be assessed in several ways, which may include customer satisfaction surveys and repeat buying analysis; low price performance may be assessed by comparison with competitors price points for comparable products/services; reliability of supply may be assessed by numerically analysing delivery performance against expectations. Some of these can be performed by
automated analysis from existing process records while others may require special methods.

In this model the algorithm for calculating group performance by combining individual performances for the elements of satisfaction is called the Group Satisfaction Function (GSF). Whatever form this function takes for a group, it needs to be clearly defined and consistently applied if the calculated performance is to be valid (clearly related to the values of the organisation) and reliable (such that a measured change truly reflects a real change), and the model must establish the necessary links between each group and the elements of satisfaction that contribute to the GSF.

If the performance in respect of the elements of satisfaction can be expressed as numbers, then the performance for the group could be calculated by aggregating the components using a simple equation using weights, of the form:

\[ a*e_1 + b*e_2 + \ldots \]

where \( a, b \ldots \) are weights, and \( e_1, e_2 \ldots \) are the values assessed for the elements of satisfaction. This method of calculation is recommended for determining overall customer satisfaction by Dahlgaard and Dahlgaard (2002), and Busby and Williamson (2000) develop the same basic calculation into frontier analysis which looks to minimise weighted sums when applied to costs.

However, while the calculation may be rescaled in some way, or expressed as a percentage, there is no reason for the GSF to be restricted to linear algebra. McGovern et al. (2004) shows that, in the case of McDonalds, a high overall score can disguise the effect of a critical element that has an unacceptably low value. This was found when product innovation seemed to lead to reduction in customer loyalty, even though it was regarded as an important satisfier. It transpired that innovation had been achieved at the expense of complex and time consuming order taking, which led
to unacceptable waiting times and negated the advantages of innovation and variety. The problem was overcome in this case by setting an additional target based on an acceptable threshold of waiting times. Thus, a non-linear, threshold-based method of calculation was introduced to be used in conjunction with a measure of variety and innovation.

Stata (1989) and Schneiderman (1988) show the value of using the time exponent of a value, such as error rate, that exponentially approaches a fixed limit as improvements are introduced. This introduces the concept of using rate of improvement as a measure, and the use of exponential algebra to define the method of calculation.

Using the above as examples, and anticipating that an organisation may require forms of calculation not discussed in the literature, the forms of calculation can be extended to include any of the following (and no doubt other forms as well):

- Linear components.
- Powers and ratios.
- Differentials, taking into account the rate of change of a measured value.
- Exponents.
- Statistical parameters, including means, maxima, minima etc.. For elements with values that take the form of a normal distribution, other statistical parameters such as sigma could be used.
- Step function, where a value has to exceed a specified threshold.

The above examples show how different organisations need to measure different things, and adopt different methods of calculation to usefully represent the performance of the organisation. Therefore, in this model, the GSF is simply represented as a generalised function related to the elements of satisfaction and individually specified for each group.
Pidd (1999) considers that it is best to start with something simple and make it more complicated only if necessary, and expresses the view that data should not be collected and analysed unless it is genuinely required. This implies that while an organisation may prepare a long list of elements of satisfaction, it should be realistic about which ones need to be analysed. The danger, however, is that operating environments change, and what was an unimportant aspect may become important (this has applied to a number of issues of public awareness over recent years, including environmental concerns, employee welfare, product safety and community relationships). Meyer (1994) states: “The design of any performance-measurement system should reflect the basic operating assumptions of the organization it supports. If the organization changes and the measurement system doesn’t, the latter will be at best ineffective or, more likely, counterproductive”. Therefore, to maintain a valid analysis it is necessary to review the satisfiers at intervals and reappraise their significance. This relates to the modelling requirements expressed in chapter 10 section 10.5 (3).

11.6.2 Calculation of element performance

The performance of the organisation in respect of a stakeholder group is calculated from performance in respect of the elements of satisfaction related to that group as described in section 11.6.1. However, each element of satisfaction may not be measurable directly from a single indicator. The performance value for each element of satisfaction therefore, in the general case, needs to be composed from several indicators, each measured in different ways. For example, employee work-life balance and welfare could be objectively measured by separately considering: flexibility in working hours, on-site childcare, sick pay, healthcare (including perhaps stress counselling), canteen services, car parking and other considerations. Each of these needs to be measured in different ways and with reference to different benchmarks or norms.
In the same way that overall group performance is determined by combining satisfaction elements in different ways to arrive at a composite valuation, a similar situation exists when determining the value of each satisfaction element from directly measurable indicators. The method of combining them into a composite assessment, which in this model is called the Element Satisfaction Function (ESF), therefore needs to take into account similar algebraic considerations as for GSFs - for example linear, differential, statistical and other calculations. However, to achieve the greatest possible level of validity these indicators must be, as far as possible, direct measures of stakeholder perceptions of satisfaction.

These indicators may take a great variety of forms, some of which can be measured quantitatively (such as delivery performance), while others may have to be measured by seeking subjective assessments in surveys (such as how satisfied employees are with flexible working arrangements). The collection and analysis of qualitative data is a topic addressed in research literature (Hussey and Hussey, 1997, chapters 6 and 8), and a selection of techniques are available to resolve different types of data. Care has to be taken in collecting subjective information in case bias is inadvertently introduced, and there are methods for converting qualitative data into quantitative form for analysis. Methods for handling subjective information include digitisation of perceptions (such as using a Likert scale), comparative preference options, and the analysis of emotive keywords in transcribed interviews, all of which could be used in constructing a performance analysis model. For example, Dahlgaard and Dahlgaard (2002) recommend using 5-7 point Likert scale to collect satisfaction perception data, and using surveys.

The data collection and analysis needs to be expressed as a process or procedure which provides the necessary detail, as without specifying the method of data collection and analysis, neither the validity nor the reliability of the data can be assured. Documents that provide this detail are part of the implementation of the model.
Similar issues arise here as for group satisfaction in section 11.6.1 in relation to complexity, so while the model does not specify the number of indicators, it is recommended that a manageable number of indicators is selected for each element of satisfaction when the model is implemented. Also, to satisfy the requirements specified in chapter 10 section 10.5 (3), the indicators, methods of data collection and the analysis must be reviewed at appropriate intervals. For the model to be seen to be validated in this way, records of such reviews should be retained.

11.6.3 Composite feedback

The calculation of the overall performance of an organisation is thus represented as a layered structure, and at each level of measurement there needs to be a corresponding set of targets. Therefore the overall organisation targets are initially expressed as stakeholder group-related targets; these are then expressed as separate targets for the selected indicators; and they in turn are expressed as targets for the various directly-measured indicators. By this means, coupled with the formally defined structure of calculations, described in sections 11.6.1 and 11.6.2, the model provides vertical transparency through the communication of the relationships between operational measures and strategic requirements. This process of breaking down strategic requirements into operational indicators is described in Figure 11.3 as strategic decomposition.

Conversely, the performance indicators are collected and aggregated to calculate the performance against the elements of satisfaction, using the data collection and analysis methods defined as part of the implementation of the model. These are again collected and aggregated at a higher level to calculate the performance of the organisation in regard to each of the stakeholder groups, and the result presented as a chart or scorecard for the performance of the organisation overall. This process of aggregating operational indicators into strategic performance is described in Figure 11.3 as performance aggregation.
At each level, the measured or calculated values can be compared with the performance targets. The model therefore provides the means for performance to be evaluated at several levels within the organisation, so feedback loops (improvement cycles) can be established at local, tactical or strategic level.

![Composite Feedback Mechanism Diagram](image)

Figure 11.3: The Composite Feedback Mechanism

### 11.6.4 Process performance

The relationship between processes and stakeholders was examined in section 11.4 and section 11.5.2. It was found that the connection between processes and stakeholders needs to take the form of a matrix, with rows representing stakeholder groups and measures, and columns representing processes. Each element or intersection of the matrix can then be used to indicate the significance of the relationship, and therefore the relevance of the value performance to the process, its operation and its design.

If each row of the matrix were to represent a single stakeholder group, then there would be insufficient information for the process owners to identify what aspect of their process (either its performance or its design) is in need of improvement. For example, in relation to the environment the process owner would need to know
whether the required improvement relates to waste materials, conservation of energy 
or the source of materials. This indicates that the connection between the performance 
measures and the processes needs to be provided in more detail. On the other hand, 
having specified that there needs to be an improvement in waste materials, it should 
not be necessary to prescribe as a feature of the model exactly how the improvement 
is to be made. The process owner should be able to investigate various possibilities 
and find out which ones will be most feasible and effective within the other 
constraints of the operating environment. Therefore, the matrix needs to connect 
processes into the performance measurement structure at the level of satisfiers. This is 
shown in Figure 11.4

![Diagram](image)

Figure 11.4: The Performance Boundary

However, the process owner will need to evaluate any changes in the conduct or 
design of the process without being misled by variations in the other indicators that 
contribute to the same measure of performance. Therefore, the process owner needs 
to have access to the original indicators related to the required satisfier, and to be able 
to monitor changes in those indicators individually.

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Thus, discrepancies between required and measured performance can be directed through the Performance Boundary matrix to the relevant process owners, with the strength of relationship indicating the necessity for action in each case. The process owners, either individually or through concerted action, can identify the most feasible responses, introduce the changes and verify their effectiveness through the continual process of measurement and analysis.

The discrepancies between required and measured performance may result from process variations (the outputs are changing) or from strategic changes (the requirements are changing). Strategic changes arise when it is determined by strategic review that stakeholder priorities need to change, or the evaluation of stakeholder perceptions need to be revised. These may result, for example, from decisions to reposition products in the marketplace, or from regulatory changes, or when there are indications that stakeholder groups are changing their perceptions of value. Strategic changes affect the parameters of the model, which not only provides the necessary stimulus for processes to be brought in line with new requirements, but provides the necessary information for the process owners to determine what is required and how they can verify the effectiveness of process changes. Thus, the model is responsive and adaptive to changes.

11.7 DISCUSSION AND CONCLUSIONS

The model described in this chapter is intended to establish whether there is support for the fifth and sixth hypotheses of chapter 6, which are repeated in the opening paragraph of this chapter for convenience. The model was also required to comply with a set of modelling requirements presented in chapter 10 section 10.5, based on sound modelling methodology, the need to support continual improvement, and the principles of organisational learning.
The model employs two structural design features. One uses a hierarchical breakdown to transform organisational strategic values into the required detail for operational use. The same structure, operating in reverse, enables the operational performance to be transformed back into organisational performance for strategic review. The other structural design feature uses a tabular relationship to provide a comprehensive and flexible expression of the relationship between operational values and organisational processes. This also operates in two directions: in one direction the links from processes to operational values ensures that the process structure and design has focus in relation to the needs of the organisation; in the other it provides a map of connections from performance indicators and measures back into the processes for error correction and performance improvement.

The model builds on the findings of the literature review of chapters 2-5 and the field research of chapter 9 by developing the concept of expressing the organisational values in terms of stakeholders. The field research of chapter 9 shows that it is possible to express the values of an organisation in terms of clearly defined stakeholder groups, and that the requirements of those groups can be identified in general terms as elements of satisfaction. The model takes this one step further by allowing those elements of satisfaction each to be measured by a number of indicators which are related to the true perceptions of the stakeholders, rather than extensions of internal measures that are presumed to achieve satisfaction. Thus, the hierarchical breakdown of organisational values to performance measures is entirely rooted within stakeholders, their requirements and their perceptions of value.

Meanwhile, the organisation is represented by its processes, which govern all its outputs, and control its internal resources. Processes are then mapped in the model to stakeholders through a tabular structure which has been called the Performance Boundary. The Performance Boundary provides an analytical connection between the organisation and the stakeholders by defining the strength of relationships at an appropriate level of detail. It serves the purpose of communicating not only value requirements, but also the perceived organisational performance which can be
attributed to each process. The analytical methods described in the model for relating the levels of performance can be discussed and understood by those concerned, so they can be changed where necessary and the validity of the reported performance can be assured.

Thus, the model demonstrates support for hypothesis 5 by providing a representation of the organisation as a separate entity to its stakeholders, with a boundary that defines a structured relationship between process outputs and stakeholder values. The model also demonstrates support for hypothesis 6 by providing a hierarchical breakdown of organisational strategy, expressed in stakeholder-related values, which forms an analytical structure related to measurable performance indicators. The model is supported throughout by reference to concepts established in the literature.

The model also supports the requirements expressed in chapter 10 section 10.5, as follows:

11.7.1 Feedback

The Performance Boundary represents the required connection between performance indicators and organisation processes. The process owners are connected to performance targets and indicators, as well as the strength of the relationships with their processes. They also have access to performance indicators and the analytical constructs that allow the original evidence of performance to be examined. They are then best placed to use their knowledge and experience not only to correct errors in process outputs but to determine the need for process changes. In this sense the model represents support for single and double loop organisational learning.
11.7.2 Three layers.

The model, as presented, specifies the stakeholders and their definitions and the structural relationships with which the stakeholder values are related to performance indicators, and to the processes. This is shown in Figure 11.3 (the composite feedback mechanism) and Figure 11.4 (the performance boundary). These two figures illustrate the essential features of the model, and represent the top layer. The middle layer represents the implementation of the model, and specifies those things that vary from one organisation to another. This includes: definitions of elements of satisfaction, performance indicators, methods of measurement and aggregation, process relationships (especially the contents of the Performance Boundary matrix), and the methods used to validate the implementation of the model (e.g. using auditors, external advisors or benchmarks). The lower layer represents the data processed by the model, and includes, on a regular basis: the measured values of the performance indicators, the performance analysis results, evidence of response by process owners to performance data, and validation audit records. The lower layer also includes data that may be prepared less frequently, such as revisions to strategic priorities, and the results of external reviews or assessments.

11.7.3 Recursive.

The model requires, within the defined processes, the means for reviewing the implementation of the model and changing it where necessary. Reviews, which may take the form of internal audits, external assessments or the use of specialist advisors, are defined as part of the implementation, as listed in the preceding paragraph. Reviews are required identify and respond to changes in environment (e.g. markets, legislation) as well as any persistent performance problems, or any evidence that the organisation is not achieving its vision or mission.
11.7.4 Financial pre-eminence.

The model treats all stakeholder groups in exactly the same way, each being considered according to the priorities determined by the organisation's strategic values. Shareholders and other financially interested parties are represented as stakeholders in the structure of organisational values (as listed in Appendix D), and can be assigned an appropriate priority in balance with other relationships that are required to sustain the organisation. Detailed financial considerations, such as those related to balance sheets, are represented as resources, as discussed in section 11.3, which are used by process owners as factors in the design of processes. By separating financial assets and other resources in this way, they become a support for the organisation, and represent a planned investment in its future productive capability. Thus, the model is compatible with a dynamic, sustainable view of an organisation, rather than a static, short-term, asset-valued view. In this way an implementation of the model can also progressively adapt to changing societal norms or requirements without having to reinvent the model.

11.7.5 Strategic values.

This relates to the observations in the early part of this section, concerning support for the hypotheses.

11.7.6 General modelling requirements.

The model is essentially simple in structure, represented by Figures 11.2, 11.3 and 11.4, each of which has a small number of elements and straightforward relationships. The model requires clearly defined analytical relationships between the elements, which are defined as part of the implementation according to the needs of the organisation. Therefore the operation of the model is transparent, and strategic decisions and their implications can be clearly understood by those who are required to act on them. The elements of the model are clearly defined, together with the
requirements for implementation. A variety of real-life issues have been discussed in the presentation of the model, and it has been found that they fit the structure. The model allows each organisation to define its own data collection and analytical methods and, while these may need to be varied, the model does not enforce unfeasible simplicity nor unnecessary complexity. Thus, an organisation with simple requirements can be expressed as a simple implementation.

11.7.7 Generalisation (the fourth layer).

The model, as presented, depends on the list of stakeholder groups shown in the questionnaire of Appendix D. While this has been tested for validity by the field research of chapters 8 and 9, there remains the possibility that this definition of groups is not best suited for some organisations. Therefore, within the design of the model it is feasible for an organisation to define an entirely different set of groups. In doing so, it would be necessary to represent them in a similar style (i.e. with a name, synonyms where appropriate, and a full description), and to ensure by some means that the list is both complete and unambiguous. The reasoning behind the list proposed in this thesis is presented in chapters 3, 8 and 9, so in developing an alternative set of groups, the developer would need to justify their methodology (if different) and provide some evidence for the validity of the alternative. In this regard, a generalised model, instead of referring to the list in Appendix D, would specify a requirement for a methodology and proof of validity for the derivation of an alternative set of stakeholder groups. In the simplest case, where an organisation decides that some of the groups are entirely irrelevant to their needs (the field research of chapter 9 indicates that this might often be the case), it only requires them to make a statement to that effect, with a clear justification, and to implement the model with a reduced set.

Figure 11.5 shows a generalised version of Figure 11.4, in which reference to stakeholders is removed altogether, and the composite feedback mechanism, shown in more detail in Figure 11.3, is represented as an undefined structure. To implement a model based on this generalisation it would be necessary to define strategic values.
in some other terms, and to provide an alternative structure for decomposing them for operational relevance. Also, the performance boundary, which is represented in the model as a matrix, may take some alternative form. The generalised structure has value because it addresses the need for communicating strategic requirements in terms that can be measured at operational level, and the need for a connection between the expression of requirements and the management of processes. Other models based on this generalised structure could be conceived that meet the other six modelling requirements discussed above.

![Figure 11.5: The Generalised Model](image)

11.7.8 Application of modelling theory.

The model is symbolic and static, and while it provides a structure for representing important performance data, it can be seen primarily as an organisational learning tool (section 5.3 of chapter 3). In this sense it is designed to be implemented initially using convenient knowledge, and to permit incremental/iterative improvement. Those improvements are embodied not only in the form of changes to the data analysis but as representations of a continually developed understanding of stakeholder perceptions of satisfaction. The model architecture is thus built on the precept of
continual improvement throughout the organisation's life, not only in the initial implementation of the model.

The proposed model potentially satisfies several purposes, as enumerated in section 5.5 of chapter 5. By providing top-down connections between strategy and operational processes, it supports management decisions with relevant information. By providing bottom-up information comparing achieved performance in relation to strategic relationships it supports decisions relating to organisational development. By representing strategic relationships and the analysis of performance measured against them, the model provides an organised and therefore clarified view of these important issues. These two connections also constitute a system of communication that addresses one of the prime causes of failure of strategy.

The complexity of the model depends on the detail used to represent performance measures when it is implemented. While it is recommended that the implementation is made as simple as possible, the model permits whatever level of detail the organisation deems necessary. The model allows "what-if" scenarios to be represented, thereby providing a limited predictive capability. This may take the form of changes in relationship strategy, anticipated changes in perceptions of value (e.g. fashion, political pressure), or proposed changes in the management of processes.

The model is not intended to legislate for value profiles or the measures of satisfaction that are to be adopted in any particular case. Therefore the validity and reliability of the model is ultimately determined by its implementation. However the model design incorporates certain features that take these important factors into account. Construct validity is addressed by providing the model with constructs that represent as directly as possible those issues relevant to measuring the organisational performance. The model represents an ontologically subjective view of reality. It therefore encourages subjective measurement and analysis, with particular reference to the stakeholders' perceptions of value and performance. This distinguishes it from popular models that rely on internal performance proxies that are not clearly
analytically related to externally perceived performance. Content validity is recognised by allowing the implementation to determine the manner of data collection and analysis. Those who are knowledgeable about the organisation and its stakeholders determine the most appropriate manner of representing the measures of perception, the manner of data collection and the form of analysis. Reliability is addressed in the model by encouraging these measures and methods to be clearly defined and controlled, so they can be discussed, communicated, evaluated and continually improved.
CHAPTER 12

CONCLUSIONS AND FURTHER WORK

This programme of research set out to develop a new model for expressing and communicating organisational strategy in order to overcome problems of communication between strategy formulation and operational process management. The model was also required to provide a sound basis for overall performance review.

A review of relevant literature revealed the possibility of adopting a new approach to the expression of strategic priorities, using stakeholders as a framework. This was developed in the form of hypotheses which proposed that stakeholders, classified into standardised groups, could be used to express a quantifiable profile of strategic importance, and could also form the basis of performance measures that could be related to the operational processes of the organisation.

Field research demonstrated the feasibility of using the proposed standardised list of stakeholder groups, and of building a structure of stakeholder-related performance measures. Using these concepts as the principal constructs, a model was designed that formally expresses the required relationships between strategic priorities, operational performance measures, and operational processes.

This chapter discusses the contributions of this research in relation to the objectives set out in chapter 1 and the hypotheses set out in chapter 6. The limitations of the thesis in relation to its boundaries and methodology are presented, and recommendations are offered for further research.
12.1 SUMMARY OF CONTRIBUTIONS

The principal contributions of this research are referred back to the contributions and objectives listed in chapter 1. For convenience, the contributions are restated before the discussion related to each one.

12.1.1 Stakeholder groups

Contribution:

A review of stakeholder concepts from the literature, encompassing theoretical and practical considerations, as well as related topics including Corporate Social Responsibility and Agency Theory. It will be shown that these concepts can be distilled into a clearly defined set of stakeholder group definitions, and that set is applicable across a wide variety of organisations.

This contribution is derived from the pursuit of the first objective. It was intended to find a paradigm for expressing organisational performance that comprehensively represents organisational values, and can be related to strategic intentions. The literature review on organisational performance measurement (chapter 2) revealed that the traditional financial measures are inadequate for a number of reasons. In particular they lack the means to communicate performance requirements in a way that can be applied to and measured by operational processes; they tend to be excessively reductionist, so they don't provide the required detail for implementation; and they do not provide the required decision support in good time for managers.

The literature review on stakeholders (chapters 3 and 4) revealed a number of ways in which stakeholder relationships are important to any organisation. This exploration of stakeholder-related concepts encompassed a number of associated topics, including the following: inclusivity, CSR, conflicting priorities, multiple relationships, latency,
and agency and stewardship theories. Taken together these offered a broad insight into critical organisational relationships, and the viewpoints of those who are beneficiaries or are penalised in some way by an organisation. From these various, and sometimes apparently conflicting, viewpoints it was possible to prepare a standardised list of stakeholder groups which represented and characterised stakeholders in groups. While much of the literature tends to be identified with one or other of the private, public or not-for-profit sectors, it was found that the underlying concepts were in fact very similar, once the assumption of pre-eminence of financial performance was set aside. The result was that stakeholder groups could be collected into a single list that applies to all three sectors.

In the literature a variety of stakeholder classifications are used without clearly defining exactly what they do and do not include, so it was necessary to clarify and organise this information. This was achieved by establishing a simple meta-structure for the stakeholder group definitions, which comprised a name, synonyms and a clear description. In this way the list was clarified, ambiguities were removed, and clear distinctions were drawn between the different groups. This list was then presented in a suitable form for field testing, being applicable to organisations of widely differing types and sizes, and to organisations in the private, public and not-for-profit sectors.

This contribution derives from having satisfied the first objective of this research programme, and hypothesis 1 of chapter 6. In developing these ideas further it was desired to seek additional support with the aid of field research, which is the subject of the second objective.
12.1.2 Field research

Contribution:

Using field research with a questionnaire, the list of stakeholder groups will be field tested for application as a structure for defining in numerical terms the strategic priorities for the outputs or effects of an organisation. Using an appropriate scale it will be shown that each organisation can be characterised by a distinctive profile of values. This construct of stakeholders, and the relative overall performance values assigned to them, provides a foundation for the appraisal of performance ontology as well as an axiological basis for prioritising processes and resources.

This contribution is derived from the pursuit of the second objective. It was intended to field test the list of stakeholder groups (prepared from the literature in the pursuit of the first objective), and to find out whether it can be used by all organisations as an expression of values. The standardised list was presented as a comprehensive description of the beneficiaries of an organisation, so it logically follows that that the satisfaction of those beneficiaries is of strategic importance to the organisation. It was therefore proposed that the standardised list of stakeholders can be used to express the relative priorities of an organisation's relationships with different stakeholder groups. The list used in this research is presented as part of the questionnaire in Appendix D.

The variation of opinion expressed in the literature indicated that there is a great variety of differing requirements for stakeholder relationships. There was no apparent foundation for the normative evaluation of those relationships, so the drivers of organisational strategy are believed to be based on the perceptions of value in the minds of those who formulate that strategy. Therefore, in considering issues of methodology (chapter 7), it was decided to adopt a subjectivist approach. This research for this objective was also considered to be of a descriptive type because it is

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intended to clarify relationships between stakeholder groups and strategic values, rather than to establish norms or broadly applicable statistics. Therefore the field research was based on a sample of people who were instrumental in the formulation of strategy, and were spread across the public, private and not-for-profit sectors.

The results of this research were found to support the use of stakeholder groups not only as a comprehensive view of organisation outputs, but as a means of defining strategic priorities. Using a simple numerical scale to express priorities in each case, it was found that an organisation can define a profile of values that is distinctive and which can be statistically analysed. The analysis also revealed that there is a great deal in common between the three sectors, even though the literature tends to consider them in isolation. This indicates that a system of performance measurement based on stakeholders could use the same structure and learning processes across all sectors.

The field research in support of this contribution is presented in detail in chapters 8 and 9. This contribution derives from having satisfied the second objective of this research programme and hypothesis 2 of chapter 6. Further confirmation with a larger field research sample would be desirable, especially if it is required to produce a normative list. Having thus established a framework for expressing the strategic values of an organisation, it remains to be discovered whether those values can be identified with measurable performance attributes, and this is the subject of the next contribution.
12.1.3 Expression of values

Contribution:

Using the set of stakeholder groups, measures are proposed that represent their principal requirements for satisfaction. These are intended to clarify the strategic performance requirements in measurable terms. Additional field research on the same sample will be used to test the applicability of these measures. By this means a connection is established between organisational strategic values and performance measures. The proposed measures, expressed in general terms, do not assume a positivist data collection and analysis epistemology; they allow for an interpretivist approach that takes into account the subjective values that determine the perceptions of satisfaction.

This objective is derived from the pursuit of the third objective. It was intended to find a structured connection between organisational objectives and process performance. For each stakeholder group in the standardised list, a set of measurable performance factors was proposed, which are described as satisfiers. These factors concern the perceptions of stakeholders, as seen from outside the organisation, rather than internal proxies. These satisfiers were initially derived from ideas published in the literature (chapter 3), but also included indications taken from popular advertising campaigns. They were expressed in generic terms that could apply to any organisation, although this meant that they would need to be interpreted and evaluated specifically for different organisations if they were used in the implementation of performance measurement systems. The list used in this research is presented as part of the questionnaire in Appendix D.

As for the stakeholder groups, there was no apparent foundation for the normative evaluation of those satisfiers, so the importance of these satisfiers would be related to the perceptions of value in the minds of those who formulate the organisational
strategy. While some indications of performance may be objectively measured, the perceptions of value take many things into account; and as it is those overall perceptions that drive stakeholders' behaviour, the perceptions of performance have to be considered generally as subjective in nature. Therefore, in considering issues of methodology (chapter 7), it was decided to adopt a subjectivist approach. The research for this objective was considered to be of an exploratory type because it is intended to establish whether stakeholder satisfiers could be defined in this way, and to collect additional ideas on generic classification. It was not intended to quantify these in any way with a view to establishing norms or statistical relationships. The field research was based on the same sample of people who participated in the field research in which stakeholder groups were studied.

The resulting list was found to be applicable to the entire sample, which indicates that it could apply to a wide range of organisations. Each of these satisfiers can be measured, directly or indirectly, and therefore can be used as the basis of a system of measurement that represents the performance of the organisation for each stakeholder group. The concept of stakeholder groups, on which this depends, has been developed by the foregoing contribution as a broad framework for defining the performance requirements of an organisation without assuming the pre-eminence of any particular group. By considering the particular needs of each stakeholder group in terms that are measurable, it becomes possible to conceive an analytical connection between the overall organisational strategic values and measurable performance requirements. This therefore provides the foundation for a new way of defining the requirements for performance measurement, such that they can be specifically related to the strategic values of an organisation, and do not depend on internal proxies that have no clear analytical connection to the "real" perceptions of value.

The field research in support of this contribution is presented in detail in chapters 8 and 9. This contribution derives from having satisfied the third objective of this research programme and hypothesis 4 of chapter 6. Further confirmation with a larger
field research sample would be desirable to produce a normatively acceptable list of satisfiers.

12.1.4 Relationships

Contribution:

These stakeholder-related concepts will be used to examine the correlation between the espoused values of an organisation and the actual involvement of the organisation in developing stakeholder relationships. Field research by questionnaire will be used to indicate that a significant correlation exists in the sample.

This contribution is also derived from the pursuit of the second objective. It is based on the concept expressed in the literature that an organisation expresses its level of commitment to a relationship by the nature of its processes and way they integrate with those of the stakeholders. While this concept is discussed only in relation to customers and suppliers, there is no apparent theoretical reason why it should not be generally applicable across all stakeholder groups.

There was insufficient time or opportunity to study a range of organisations in the required depth to establish the depth of process relationships on an objective basis. Therefore, in considering issues of methodology (chapter 7), it was decided to adopt a subjectivist approach. This research for this objective was considered to be of an exploratory type because it is intended to establish whether there was support for a connection between strategic values and the degree of process flexibility. It was not intended to establish norms or generalised statistical relationships, but it was required to consider all stakeholder groups, rather than only those considered in the literature.
The field research was based on the same sample of people who participated in the field research in which stakeholder groups were studied. The results showed that there is a strong correspondence between the rankings of stakeholder importance and stakeholder involvement, and this supports the possibility of a more general relationship than that discussed in the literature. Certain exceptions were found, notably for Government and Regulators (where the opportunity to negotiate mutually beneficial processes is very limited), or where the perceived differences in importance between groups are so small that ranking is not a reliable indicator. These exceptions are discussed in the field research analysis of chapter 9.

The field research in support of this contribution is presented in detail in chapters 8 and 9. This contribution derives from having satisfied the second objective of this research programme and hypothesis 3 of chapter 6. Further confirmation with a larger field research sample would be desirable for a more reliable generalised statistic.

12.1.5 Performance model requirements

Contribution:

The requirements of an organisation performance model will be derived from the literature related to modelling, organisational learning and the need for performance measurement. The need for this will be determined by reviewing the weaknesses of existing popular models.

This contribution is derived from the pursuit of the fourth objective. These stakeholder concepts and their implications concerning organisational performance requirements and measurements indicate the need for a new performance model that overcomes some of the limitations discovered with existing popular models. These limitations are discussed in the literature reviews of chapters 2-4.
The requirements for a new model, and the principles that should be embodied in its architecture, have been researched and presented in chapter 10. These requirements and principles are drawn from several distinct areas of the literature, including: an examination of the needs of management and their relationships with measurement; the theory of organisational learning and how it relates to performance improvement; and the principles of sound modelling practise. The requirements also embody several new aspects that are not substantively featured in existing popular models and which build upon the foregoing contributions. In particular: the definition of stakeholder groups and their relationships to organisational strategic values; the representation of externally perceived, subjective measures as performance indicators; the analytical connection that these contributions imply between strategic values and operational performance; and the avoidance of assumed pre-eminence in any stakeholder group.

The details of the proposed performance model requirements are derived, presented and discussed in chapter 10. They are illustrated by reference to existing models, and provide a theoretical foundation for the development and assessment of a new model. This contribution derives from having satisfied the fourth objective of this research programme and hypothesis 5 of chapter 6, and forms the basis for the fifth objective and further contributions presented in sections 12.1.6 and 12.1.7.

12.1.6 Separation of stakeholders from the organisation

Contribution:

It will be shown that stakeholders can be represented in the form of a domain that is distinct from the organisation itself. This will be seen to offer a viewpoint that allows the relationships between an organisation and its stakeholders to be presented as a logical model (the Performance Boundary Model). In the proposed model there is a clearly definable boundary where a transformation of values takes place. This can be seen as an axiological “map” in which process values (outputs) are related to stakeholder perceptions of value.
This contribution is derived from the pursuit of the fifth objective. It builds on the foregoing contributions, where stakeholders are considered to be representatives of an externalised evaluation of organisational performance. This is discussed and developed in chapter 11. There it is shown that, in considering stakeholders as separate from an organisation, it becomes possible to recognise the need for managed relationships, and to establish some means of clarifying those relationships. In particular, by considering the boundary not as a vacuum but as a structure that distinguishes the measurement of activity (process performance) from that of outcomes (stakeholder perceived performance), it acts as a translator or map that relates one set of values (internalised) to another (externalised). It can also be seen to act as a boundary between objective "reality" as determined by positivist internal measures, and subjective "reality" as perceived by stakeholders, and which drives their relationships.

This concept is theoretically fundamental to understanding organisational performance, as it challenges conventional assumptions about the true strategic value of process outputs. The separation of stakeholders from the organisation is featured in the conceptual outline of the Performance Boundary Model which is discussed in section 12.1.7 below. This contribution derives from having satisfied the fifth objective of this research programme and hypothesis 5 of chapter 6.
12.1.7 The Performance Boundary Model

Contribution:

The Performance Boundary Model will be developed to provide an effective and transparent analytical connection between organisational strategic values and the methods and measures used to determine operational performance. The model will be shown to provide a further connection into operational processes, thereby establishing a clear analytical link between processes, performance and strategic values, and which can support a reflective performance improvement cycle.

This contribution is derived from further pursuit of the fifth objective. It provides a representation of the performance model requirements set out in chapter 10, and builds on the contributions discussed in sections 12.1.5 and 12.1.6.

The Performance Boundary Model is described in detail in chapter 11. It was conceived and designed to formally express the constructs of stakeholder groups, strategic priorities and performance measures, and connect them into an organisational performance management system. As some other popular models are predicated on the assumption of the pre-eminence of financial requirements, particular attention has been given to the nature of financial assets and their relationships with productive resources; this relationship has been analysed to show their similarities and significant differences. This analysis, represented by a simple, resource-based model, illustrates several important factors: the mutually dependent relationship between processes and resources; the need for resources to be valued according to their future productive capacity; and the required variety of resources that extends beyond those that feature in conventional financial reports.

The Performance Boundary Model is designed and shown to meet the requirements and modelling principles presented in chapter 10, which include the management of
performance improvement at operational and organisational levels, and the need for a model that does not assume the pre-eminence of financial requirements. Thus, the model is based on a new perspective that includes financial considerations (through shareholders and investors as stakeholders), but gives equal consideration to other stakeholders that represent the dynamic, value-creating aspect of the organisation. By avoiding assumptions of pre-eminence, the model is specified to allow an organisation to define for itself the relative strategic importance of the different stakeholder groups.

The model also requires the implementation to specify the indicators of satisfaction and the manner of their measurement and analysis. By requiring the implementation to specify these measures and to document their method of use, attention is directed to important issues of validity and reliability. This permits, where necessary, a sound theoretical basis for evaluating the implementation of the model.

The model therefore provides not only an adaptable structure for representing strategic values and evaluating operational performance, but also a methodology for developing an improved understanding of the factors that govern strategic relationships, and their praxeological representation. This contribution derives from having satisfied the fifth objective of this research programme and hypothesis 6 of chapter 6.

12.1.8 Application of methodological concepts

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<tbody>
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<td>The model will also be shown to illustrate a new perspective with regard to important methodological concepts. These include a subjective ontology, an interpretivist epistemology and a structured axiology connecting strategic values to performance outcomes.</td>
</tr>
</tbody>
</table>
This contribution is the application of methodological concepts to the measurement of organisational performance. It has been shown that the model illustrates a new perspective with regard to a subjective ontology, an interpretivist epistemology and a structured axiology connecting strategic values to performance outcomes.

12.2 LIMITATIONS OF THE THESIS

The field research of chapters 8 and 9 is based on a phenomenological study comprising a programme of grounded research; this was in some places exploratory and in others descriptive. These may be considered as preliminary research phases in which the principles of the research topic are clarified and the variables clearly defined. This much was achieved, but a research programme could then progress into a positivist phase where the variables are studied with reference to a statistically significant sample. This programme of research therefore does not provide a basis for establishing norms or other relationships that organisations could adopt as a guide or benchmark.

The available sample provided some indication of comparisons between organisations in the three sectors (private, public and not-for-profit), but was insufficient to provide any comparisons in relation to size, trade, maturity, geography or any other dimensions of classification. While organisations of widely varying size were used, and there was no apparent theoretical reason for the other dimensions to be significant, the significance of these dimensions could not be eliminated in the analysis. Also, the field research was conducted at a fixed point in time for each respondent, and was not designed to provide a time or event related profile. Neither was it within the scope of this research to identify causality or investigate predictive relationships.

Another boundary of this study concerns the origin of the organisations’ perceptions of stakeholder importance. No attempt was made to establish the bases for these judgements (e.g. whether they were instrumental or philanthropic) or the evidence that was used to form them. These judgements may be related to perceptions of...
mutual dependence in some cases (e.g. with employees), but it was considered important in this study to entirely separate stakeholder relationships from resource relationships and to focus on stakeholders as beneficiaries.

The relationship between importance and involvement was studied briefly and subjectively. This is an important topic in relation to Lean and supply chain management and could possibly be usefully applied to other stakeholder relationships as well. As an inductive process this research established a method for observing this relationship, but it was only possible to provide a general statistical indication.

The proposed model in chapter 11 is theoretical in nature, and has not been tested by implementation. Key issues in this regard are reliability and validity in the context of a “live” organisation, and (because it would take time and resources to implement) the cost/return balance overall. In relation to reliability, it remains to be seen, for example, whether the proposed structure for data collection and analysis produces information that managers trust and are prepared to act upon. In relation to validity, it remains to be seen whether the model is able to accurately represent the required constructs (e.g. stakeholders, satisfiers, analytical methods) and the required content (e.g. availability and timeliness of data and analysis). The model is designed to be implemented simply initially, and then progressively developed according to apparent need, but it remains to be seen how much work is involved and to determine the balance of investment/return that it represents at any point in its development. These issues have been identified through careful inductive reasoning, and are represented in the model, but the effectiveness of the model has not been tested in practise.

The model, as presented in chapter 11, represents the product of sound inductive reasoning and merits further study and practical evaluation. To test the model would require a great deal of commitment by the participating organisations, and the tests would need to be conducted as case studies. The model is more than a system of performance measurement: it is a framework in which an organisation can learn about itself and develop itself through its relationships. Therefore any evaluation would
need to carefully examine the processes of establishing and maintaining the model, as well as considering the quality of support that it provides for strategic decisions and process improvements.

12.3 RECOMMENDATIONS FOR FURTHER RESEARCH

The following are related to the foregoing discussion of the limitations of this thesis. Overall, the suggested further research builds on the foundation provided by the grounded theory and inductive reasoning presented in this thesis. In regard to the theoretical constructs associated with stakeholders and their perceptions of value or performance, the natural progression is through positivist/deductive research. This could be pursued, for example, through large-scale surveys. In regard to the theoretical model, the natural progression is through trial by experimentation. This could be pursued, for example, by the use of case studies or participative enquiry in which the features and application of the model are further clarified from a practical and economic perspective. A useful outcome of such trials would be the preparation of a detailed itinerary or plan to guide the implementation of the model.

The theoretical constructs related to stakeholders need to be further investigated, taking into account additional variables such as size, trade, maturity and geography. This would provide better insights into the variability of stakeholder-related values. Given a large enough sample this could even provide normative indications that could be used for strategic guidance, diagnosis, or forensic analysis; but the sample would need to be very much larger in order to provide a statistically significant contribution.

As the value profile can be reviewed and changed as often as required, not only in response to the annual financial returns but in relation to other factors such as CSR, it would be of interest to plot changes for an organisation over an extended period of time to assess whether a performance management system based on the proposed stakeholder structure leads to stability or instability. Also, how this is affected by changes in the operating environment. For example, if there is a step change in the
value assigned to the community stakeholder group in response to indications of public awareness, it is of interest to see how quickly the system stabilises and whether it responds quickly enough to give appreciable competitive advantage. This would require a longitudinal study over a sufficiently long period of time to encompass several changes in strategic values, and would need to involve several organisations to provide confidence in the reliability of the analysis.

The reasoning behind strategists' perceptions of stakeholders' strategic importance needs to be investigated further. The ongoing debate over the relative merits of instrumental and philanthropic motivation indicates that there are fundamental differences in strategists' core values. It may be possible to identify those core values and use them as indicators of potential volatility or stability in strategy, as evidenced by changes in the stakeholder-related profile of values.

The relationship between importance and involvement has been investigated briefly, and with some statistical correlation, but this could be explored in greater depth especially with regard to the principles of Lean and supply chain management. The field research did not collect data on the details of the collaborative measures used, or the basis on which such measures were determined and prioritised, so it is suspected that in small organisations this is more intuitive than systematic. The principles of Lean could be applicable to stakeholder groups not normally associated with the supply chain, and further study in this area may lead to worthwhile improvements in stakeholder relationships. For example, if there is an inefficient or troublesome relationship with any stakeholder group (or any significant representatives thereof), and there is a corresponding weakness in the performance indicators, then there may be substantial support for deploying management time in developing a collaborative change in processes. While supply chain relationships are routinely measured in terms of unit costs, support costs (e.g. inspection), buffer stock requirements and production punctuality, comparable details of performance are not usually measured for all other significant stakeholder relationships. Implementation of the Performance Boundary Model would provide a structure for collecting and analysing this data, but
without having to implement the complete model, the precepts concerning the use of indicators and performance measures could be used to good effect in focussing attention on the issues of greatest significance.

In support of implementing the Performance Boundary Model, the connection between strategic values and operational measures could be explored further. In particular it would be helpful to expand the standard list of satisfiers, collecting variations in interpretation between types of organisation, and providing a comprehensive variety of indicators that could be used by different organisations. Even without implementing the full model, lists of possibly significant satisfiers, and associated performance indicators, especially where they can be associated with particular types of organisations (e.g. certain measures may be of greater significance to manufacturing companies than to charities), could be helpful as a guide for performance troubleshooting.

The Performance Boundary Model needs to be tested by implementation in an organisation. Because the model supports performance feedback and review, the effectiveness of the model would need to be assessed over a sufficient period of time to expose the effectiveness and stability of the feedback processes. An implementation would not only prove the design concepts of the model but would develop a better understanding of the details of stakeholder-based performance measures and indicators. The model is very adaptable, in terms of the measures that can be selected for use in any organisation, in the selection of performance indicators, and in the representation of their values. It also offers a number of algebraic possibilities when combining values, and these also need to be selected carefully. An efficient implementation of the model should provide for the necessary precision and reliability of measures but without placing unnecessary demands on the users. In other words an efficient implementation can be expected to be a compromise between complexity (with its associated demands on resources and possible mistrust of its findings) and effectiveness in supporting a responsive organisation. It is therefore beneficial to use case studies to analyse implementation issues, to identify any
implementation guidelines that can shortcut the process of arriving at an acceptable complexity/effectiveness compromise, and to discover whether standardised measures and methods can be used to support the rapid development of models for particular types of organisations.
REFERENCES
R.1 REFERENCES


Peter C. Grossi


Peter C. Grossi


A Stakeholder-based Organisation Performance Model

References


A Stakeholder-based Organisation Performance Model

References


Peter C. Grossi
References


Lewis, L.K., Richardson, B.K. and Hamel, S.A. (2003) "When the "Stakes" are Communicative: The Lamb's and the Lion's Share", Human Communication Research, Vol.29 Iss.3: pp 400-430


NIST (1993) "Integration Definition for Function Modeling (IDEF0)", http://www.idef.com


References


APPENDIX A

ORGANISATION SIZE DEFINITIONS

The following summary of definitions is taken from the official publication of the European Economic Union (European Economic Union, 1996). The definitions are used by other organisations, such as grant-awarding bodies, to classify organisations for the purposes of determining the type and level of support for which they qualify. In the following an SME is any organisation qualifying as a Micro, Small or Medium Enterprise.
A.1 MICRO ENTERPRISE:

Less than 10 employees
No more than 25% owned by one or more companies that are not classed as SMEs

A.2 SMALL ENTERPRISE:

Between 10 and 49 full-time employees and either
Annual turnover of no more than Euro 7 million (~£4.41m)
or Balance sheet of no more than Euro 5 million (~£3.1m)
No more than 25% owned by one or more companies that are not classed as SMEs

A.3 MEDIUM ENTERPRISE:

Between 50 and 249 full-time employees and either
Annual turnover of no more than Euro 40 million (~£25m)
or Balance sheet of no more than Euro 27 million (~£17m)
No more than 25% owned by one or more companies that are not classed as SMEs

A.4 LARGE ENTERPRISE:

By default, any organisation not included in any of the above.
APPENDIX B

THE SURVEY SAMPLE

The following table summarises the organisations used in the survey described in chapters 3 and 4 of the thesis. For reasons of confidentiality the organisations are numbered, and these numbers are consistent with the identification used in the analysis and presentation of data. The organisations are identified in correspondence and in the original data which has been retained by the author.
B.1 DESCRIPTION OF THE SAMPLE

<table>
<thead>
<tr>
<th>ID</th>
<th>Sector</th>
<th>Size</th>
<th>Description</th>
<th>Scope</th>
<th>Mission</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Private</td>
<td>Small</td>
<td>Accountants</td>
<td>Local</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Public</td>
<td>Large</td>
<td>University college</td>
<td>Regional</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>NFP</td>
<td>Medium</td>
<td>Chamber of commerce</td>
<td>Regional</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>Private</td>
<td>Micro</td>
<td>Retail shop</td>
<td>Local</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>NFP</td>
<td>Micro</td>
<td>Chamber of commerce</td>
<td>Local</td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>Private</td>
<td>Micro</td>
<td>Children's nursery</td>
<td>Local</td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>Public</td>
<td>Small</td>
<td>Local authority</td>
<td>Local</td>
<td>Yes</td>
</tr>
<tr>
<td>8</td>
<td>Private</td>
<td>Small</td>
<td>Travel agent</td>
<td>National</td>
<td></td>
</tr>
<tr>
<td>9</td>
<td>Private</td>
<td>Micro</td>
<td>Insurance agent</td>
<td>Local</td>
<td></td>
</tr>
<tr>
<td>10</td>
<td>NFP</td>
<td>Large</td>
<td>Paramedic charity</td>
<td>National</td>
<td>Yes</td>
</tr>
<tr>
<td>11</td>
<td>Public</td>
<td>Large</td>
<td>Heritage agency</td>
<td>Regional</td>
<td>Yes</td>
</tr>
<tr>
<td>12</td>
<td>Public</td>
<td>Medium</td>
<td>Environmental agency</td>
<td>Regional</td>
<td>Yes</td>
</tr>
<tr>
<td>13</td>
<td>NFP</td>
<td>Large</td>
<td>Professional association</td>
<td>Multi-national</td>
<td>Yes</td>
</tr>
<tr>
<td>14</td>
<td>NFP</td>
<td>Small</td>
<td>Disabled charity</td>
<td>Regional</td>
<td>Yes</td>
</tr>
</tbody>
</table>

Table C.1: Description of the Sample

B.2 CLASSIFICATIONS

The sector of each organisation is either Private, Public or Not-For-Profit (NFP). The sectors are as stated by the organisations themselves, and not assumed according to their activities. The sectors are used in the analysis of data.

The size of each organisation is banded according to the definitions given in Appendix B. Sizes are not used in the analysis, but the information was collected in case future opportunities arise where the sample can be extended to the point where analysis by size may become meaningful.
The scope of each organisation is as described by the organisations themselves, according to the principal influences of their operations (e.g. the dispersion of their customer base), and is either: Local (confined mainly within about 20 miles), Regional (confined mainly within about 100 miles). National (mainly confined within the UK) or Multi-national (dispersed within the UK, with significant overseas interests). Scope is not used in the analysis because the distribution is uneven, but the information was collected in case future opportunities arise where the sample can be extended to the point where analysis by scope may become meaningful.

Half of the organisations publish a mission statement, in most cases on their web site but in some cases in their annual report or accounts. The publication of a mission statement may be taken as an indication that the organisation publicly espouses certain values, but it cannot be taken that it is reflected in the operational priorities (Foster, 1993). With such an incomplete sample, it was not considered worthwhile analysing the alignment between the mission statements and the numerical profiles of stakeholder importance.
APPENDIX C

SURVEY RESPONDENT DETAILS FORM

The form on the following page was sent to each respondent to confirm their contact details and record classification data that was required for analysis.
Respondent Details

The following is required in order to confirm contact details, and provide the basis for analysis.

Contact details

Amended details:

Please note: All the following apply to that part of the organisation which is well known to the respondent. It need not be the entire organisation, although it does need to be a distinct and autonomous operation in respect of management objectives.

Brief description of the organisation

Mission statement (if published, or indicate if it is published on a web site)

Size (Equivalent full-time employees). Please tick one

<table>
<thead>
<tr>
<th>1-9</th>
<th>10-49</th>
<th>50-249</th>
<th>250-499</th>
<th>500+</th>
</tr>
</thead>
</table>
### Survey Respondent Details Form

**Predominant scope of operations Please tick one**

<table>
<thead>
<tr>
<th>Local</th>
<th>Regional</th>
<th>National</th>
<th>Multi-national</th>
</tr>
</thead>
</table>

**Sector. Please tick one**

<table>
<thead>
<tr>
<th>Private / commercial</th>
<th>Public service</th>
<th>Not for profit</th>
</tr>
</thead>
</table>
APPENDIX D

THE MAIN SURVEY QUESTIONNAIRE

The forms on the following pages were sent to each respondent in advance of conducting interviews by telephone, and comprise the main data collection instrument used in the field research.
QUESTIONNAIRE 1 – IDENTIFYING STAKEHOLDERS

The following questions are intended to identify what relationships your organisation considers desirable. It considers all those people or organisations which may be affected by you. This includes at least the following:

Input of materials or services.
- Output of materials or services.
- Processing and disposal of waste.
- The manner in which you conduct your operations or processes.
- Those who share information with you.

This survey is concerned only with the expectations these groups may have of your organisation, and is not concerned with what your organisation may expect or require from them.

There is no time limit on the following questions. All the questions are to be considered from the point of view of the organisation rather than your personal opinions or activities, if they should differ. You may consult any documents you wish, or confer with colleagues if it helps you to provide accurate answers.

Question 1.1

In order to focus your thoughts, the attached list (Stakeholder Groups) has been prepared from other sources which shows a number of distinct groups of people or organisations which may be affected by your organisation.

Individuals and organisations often perform multiple roles, and it is important that these are kept separate. The following examples illustrate.
• A patient in a healthcare situation can be regarded as a customer (who makes the purchasing decision) and a user (who has to live with the consequences).

• A company director is also an employee and possibly an investor or lender as well. Each of these roles has to be addressed as a separate issue because they affect different people in different ways.

• A company making vacuum cleaners should consider separately the purchaser (e.g. price) the user (e.g. weight) and the maintainer (service spares).

• A manufacturer needs to consider separately their relationship with their customer, which may be a dealer or distributor, and the end user who realises the value of the product in use. This shows how some stakeholders can be important even though there is no direct contact with them.

• A person making a purchase may not be the user – they may be making a family, group or company purchase for others to use.

Please examine this list carefully and consider the following:

1.1.1 Can you think of anybody who relates to your organisation, and is not covered by these groups? If so, please describe such a person or organisation in the box at the end of the list.

Question 1.2

For each of the groups, consider the importance to your organisation of satisfying its members. You should consider the potential benefits or penalties that the groups can bestow and the amount of management attention that they merit. Please assign a score from 0 to 10 to each group. You may assign the same score to several groups if you wish, but to provide a reference for analysis at least one must be assigned a score of 10. You may find it easier to first consider the group or groups which obviously have the greatest importance and assign them a score of 10; then consider any that you
consider to be entirely irrelevant or insignificant for your organisation, and assign them a score of zero; then assign intermediate scores to the remainder.

1.2.1 Please enter a score alongside each group in the list.

**Question 1.3**

Each group represents an opportunity for the organisation to adopt a high or low degree of involvement. Thus, the organisation may at one extreme only aim to do the minimum necessary to keep out of trouble, and at the other extreme may work with members of the group to streamline processes for mutual advantage. The desired level of involvement is scored as follows:

0 Either the other party controls the relationship, or it is unimportant.
1 Minimum compliance with specification, enforceable standards or visibly acceptable behaviour.
2 Active efforts to encourage and improve relationships. This may involve providing, for example, free technical advice or support, or access to privileged information.
3 Active efforts to integrate processes for mutual advantage. This may involve, for example, changing working practices or management practices in partnership with members of a group.

The desired level of involvement may vary between members of a group. To avoid unnecessary complications, the predominant or average value should be taken.

1.3.1 Please enter a score alongside each group in the list.

**Question 1.4**
Finally, each group may be considered as either a benefit to be nurtured, or a source of problems to be kept at bay. This is scored very simply, either positive or negative (+ or -), or zero if there is no clear overall indication. Please do not assume that there is an obvious relationship with the answers to earlier questions.

1.4.1 Please enter a value (+, - or 0) alongside each group in the list.

**Question 1.5**

A further list (Stakeholder Requirements) is attached which shows the requirements for each group. Please examine this list carefully, and answer the following:

2.1.1 For each group, are there any significant requirements which have been left out or which need clarification? If so, please make comments in the list or in the box at the end of the list. You are not requested at this point to score them.
## STAKEHOLDER GROUPS

<table>
<thead>
<tr>
<th>Name</th>
<th>Synonyms</th>
<th>Description</th>
<th>Score</th>
<th>Involvement</th>
<th>Benefit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Community</td>
<td>Members of the public, sponsorship</td>
<td>People who are affected by the organisation in ways over which they have no direct control. Includes visitors to premises and passers-by, who may be affected by noise, mess, obstructions etc.; also sponsorship and voluntary benevolent actions.</td>
<td>0-10</td>
<td>+/-0</td>
<td></td>
</tr>
<tr>
<td>Competitors</td>
<td></td>
<td>Other organisations which, either directly or through substitution, offer alternative products or services. There may be a need to support collective interests or trade reputation. Your relationship may also be defensive.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Customers</td>
<td>Buyers,</td>
<td>Those responsible for</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
### Appendix D: The Main Survey Questionnaire

<table>
<thead>
<tr>
<th>Category</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Purchasers, clients</td>
<td>Negotiating and ratifying contracts for the supply of goods or services. They receive goods or services, including those which may be passed on or resold to users or consumers within their own or other organisations.</td>
</tr>
<tr>
<td>Directors</td>
<td>Organisation owners, trustees. Those with final legal liability (fiducial responsibility) for the conduct of the organisation's affairs. Distinct from their roles as employees.</td>
</tr>
<tr>
<td>Employees</td>
<td>Staff, people Those who depend on the organisation for reward in return for labour. They may be represented indirectly by trades unions, staff associations or other bodies. They may be unpaid volunteers.</td>
</tr>
<tr>
<td>Environment</td>
<td>Animal welfare, countryside, renewable The natural environment, where it can be affected by levels of resource</td>
</tr>
<tr>
<td>Stakeholder</td>
<td>Definition</td>
</tr>
<tr>
<td>-----------------------------------------</td>
<td>---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Government and regulators</td>
<td>Government offices, local authorities</td>
</tr>
<tr>
<td></td>
<td>Taxation, law enforcement agencies and other non-trading bodies which can invoke legally enforceable penalties for failure to comply with their standards or demands. Includes trade or profession specific regulators. Also includes politicians or lobbyists used to influence regulators.</td>
</tr>
<tr>
<td>Infrastructure</td>
<td>Publicly funded resources and infrastructure shared by the organisation with others, for which the availability may be affected for good or bad by the operations of the organisation.</td>
</tr>
<tr>
<td>Investors</td>
<td>Shareholder</td>
</tr>
<tr>
<td></td>
<td>Providers of capital at</td>
</tr>
<tr>
<td>Stakeholder Type</td>
<td>Description</td>
</tr>
<tr>
<td>------------------</td>
<td>-------------</td>
</tr>
<tr>
<td>Lenders</td>
<td>Banks, credit agencies. Providers of capital at a negotiated rate of return, and who may have some level of control over management and/or charge on assets.</td>
</tr>
<tr>
<td>Maintainers</td>
<td>Servicers, technical support. Those responsible for the continuing capability of supplied goods or services to produce value for users. Includes replenishment of consumables as well as repairs. Can also apply to third party suppliers of products or services procured by customers to support or accessorise products.</td>
</tr>
<tr>
<td>Parent</td>
<td>Financially linked</td>
</tr>
</tbody>
</table>

A Stakeholder-based Organisation Performance Model
Appendix D
The Main Survey Questionnaire
<table>
<thead>
<tr>
<th><strong>Organisations</strong></th>
<th><strong>Organisations which have some level of control over the management.</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Partners</strong></td>
<td><strong>Alliances</strong>&lt;br&gt;Other organisations which have compatible aims, and for which there is an agreed, mutually advantageous relationship other than as a supplier or customer.</td>
</tr>
<tr>
<td><strong>Public media</strong></td>
<td><strong>News and editorial journalists</strong>&lt;br&gt;Those who provide a public information interface between the organisation and the community, other than as a paid supplier of advertising.</td>
</tr>
<tr>
<td><strong>Security</strong></td>
<td><strong>Natural phenomena, loss of amenity and criminal activity.</strong>&lt;br&gt;Mediation of the likelihood or effects of events outside the organisation and its normal activities. Includes fire, flood, earthquake, power cuts, and criminal activity related to physical or information resources.</td>
</tr>
<tr>
<td>Stakeholders</td>
<td>Description</td>
</tr>
<tr>
<td>--------------</td>
<td>-------------</td>
</tr>
<tr>
<td>Subsidiaries</td>
<td>Financially linked organisations over which there is a formal level of control over the management.</td>
</tr>
<tr>
<td>Suppliers</td>
<td>Providers of specific goods or services on a contract basis, but not necessarily a commercial basis for those goods or services which are free at the point of delivery.</td>
</tr>
<tr>
<td>Trade associations</td>
<td>Non-profit bodies accepting subscriptions in return for specialist information services and possibly development of relevant “state of the art”.</td>
</tr>
<tr>
<td>Users</td>
<td>Those who realise or share the end value of the product or service without passing it on, whether or not it is physically consumed in the process.</td>
</tr>
</tbody>
</table>
Additional group(s) and comments
# Stakeholder Requirements

## Stakeholder Groups and Requirements for Satisfaction

<table>
<thead>
<tr>
<th>Community</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Safety on premises</td>
<td></td>
</tr>
<tr>
<td>Safety off premises</td>
<td></td>
</tr>
<tr>
<td>Convenience and accessibility on premises</td>
<td></td>
</tr>
<tr>
<td>Convenience and accessibility off premises</td>
<td></td>
</tr>
<tr>
<td>Voluntary contributions/sponsorship</td>
<td></td>
</tr>
<tr>
<td>Promotion of cultural values</td>
<td></td>
</tr>
</tbody>
</table>

| Competitors                                   |          |
| Protection of industry reputation             |          |
| Development of industry standards             |          |
| Protection of information or relationships    |          |
| Fair play, honouring accepted standards       |          |

<p>| Customers                                      |          |
| Information and advice on specification and suitability | |
| Transparency of price and life cost            |          |
| Product or service quality                     |          |
| Value for money                                |          |
| Low price                                      |          |
| Transparency of price and life cost            |          |
| Availability of product or service             |          |
| Suitability for purpose                        |          |</p>
<table>
<thead>
<tr>
<th>Stakeholder Category</th>
<th>Questionnaire Item</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Reliability of supply</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Convenience of supply</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Process integration / support</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Opportunity for profit</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Quality of post-sales support (advice, complaints)</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Anticipating requirements</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Trustworthiness or reliability of relationship</strong></td>
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<td><strong>Directors</strong></td>
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<td><strong>Protection against litigation</strong></td>
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<td><strong>Reputation for social responsibility</strong></td>
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<td><strong>Employees</strong></td>
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<td><strong>Safe working conditions</strong></td>
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<td><strong>Comfortable working conditions</strong></td>
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<td><strong>Pay and benefits</strong></td>
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<td><strong>Personal status at work</strong></td>
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<td><strong>Creative opportunities</strong></td>
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<td><strong>Work-life balance and welfare</strong></td>
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<td><strong>Personal development opportunities</strong></td>
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<td><strong>Job satisfaction / fulfilment</strong></td>
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<td><strong>Employer’s public image</strong></td>
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<td><strong>Employer’s social responsibility</strong></td>
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<td><strong>Clear responsibilities and targets</strong></td>
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<tr>
<td><strong>Environment</strong></td>
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<td><strong>Animal welfare and cruelty</strong></td>
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<td><strong>Safeguarding natural resources</strong></td>
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<td><strong>Conservation of energy</strong></td>
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<td><strong>Government</strong></td>
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<td><strong>Supply of statutory information</strong></td>
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<td>Stakeholder</td>
<td>Expectations</td>
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<td><strong>Payment of taxes</strong></td>
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<td>Compliance with trading law</td>
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<td><strong>Infrastructure</strong></td>
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<td>Protection from damage</td>
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<td>Support local economy</td>
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<td>Encourage use of public services</td>
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<td>Promotion of recreational amenity</td>
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<td><strong>Investors</strong></td>
<td>Dividends</td>
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<td>Share value</td>
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<td>Transparency of activities</td>
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<tr>
<td>General social responsibility</td>
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<td>Assurance of future prospects</td>
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<tr>
<td><strong>Lenders</strong></td>
<td>Timely payment of debts</td>
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<td>Accurate status information</td>
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<td>Trustworthiness</td>
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<td><strong>Maintainers</strong></td>
<td>Technical information or training</td>
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<td>Technical backup on demand</td>
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<td>Availability of parts and consumables</td>
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<td>Tools and/or software</td>
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<td><strong>Parents</strong></td>
<td>Return on investment</td>
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<td>Support for group image and reputation</td>
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<td>Compliance with group strategy</td>
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<tr>
<td><strong>Partners</strong></td>
<td>Protection of joint interests</td>
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<tr>
<td>Clearly defined relationship</td>
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<td>Compliance with agreed relationship</td>
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</table>
## Public media

- Positive public image
- Avoidance of scandal
- Frequent exposure

## Purchasers

- Information on specification and suitability
- Transparency of price and life cost
- Value for money
- Low price
- Availability of product/service
- Reliability of supply
- Convenience of supply
- Process integration / support
- Opportunity for profit
- Quality of service
- Anticipating requirements
- Trustworthiness

## Security

- Physical security, criminal
- Information security, criminal
- Natural disaster
- Loss of amenity

## Subsidiaries

- Strong corporate image
- Protection from competitors
- Finance
- Technical/process support
- Management support
### Trustworthiness

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<thead>
<tr>
<th>Suppliers</th>
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<tbody>
<tr>
<td>Clear specification of requirement</td>
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<tr>
<td>Compliance with payment terms</td>
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<td>Process integration / support</td>
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<td>Creative opportunities for profit</td>
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<tr>
<th>Trade associations</th>
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<tbody>
<tr>
<td>Payment of fees</td>
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<tr>
<td>Supply of statistical information</td>
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<tr>
<td>Participation in working groups</td>
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<td>Contribution to state-of-the-art</td>
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<th>Users</th>
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<tr>
<td>Product appearance</td>
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<td>Longevity</td>
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<td>Cost of use</td>
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<td>Ease of use</td>
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<tr>
<td>Safety in use</td>
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<td>Suitability for purpose</td>
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<td>Handling of problems</td>
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<tr>
<td>Innovative design or concept</td>
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<td>Product/service range or variety</td>
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**Additional requirements and comments**