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THE PERFORMANCE OF CORPORATE REAL ESTATE ASSET MANAGEMENT IN NEW ZEALAND

A thesis
submitted in partial fulfilment
of the requirements for the Degree of Master of Commerce and Management
at
Lincoln University

by
J. McDonagh

Lincoln University
2001
Abstract of a thesis submitted in partial fulfilment of the requirements for the Degree of M.C.M.

THE PERFORMANCE OF CORPORATE REAL ESTATE ASSET MANAGEMENT IN NEW ZEALAND

By J. McDonagh

The management of real estate assets in organizations whose primary area of activity is not related to property has only recently become the focus of academic research. This thesis presents the results of a mail survey of 457 property owning organizations in New Zealand in which corporate real estate asset management (CREAM) issues were examined. The results were compared with the only previous study of CREAM in New Zealand, that of Teoh in 1992. In addition, a process was developed whereby multiple factors of CREAM performance identified in previous research by Veale and Pittman and Parker were combined using factor analysis into a single measure of CREAM performance. This performance measure was then used to test for associations between CREAM performance and corporate stage of development as identified by Joroff. M, Louargand, Lambert.S, and Becker.F. Finally, associations between a range of organizational factors and CREAM performance were examined. The findings include details on a wide range of current CREAM practices in a cross section of New Zealand organizations. These generally reflect prior research from the UK and USA. There has been progress since the research of Teoh, particularly in respect of property management information systems and management attitude towards corporate real estate. A relationship between CREAM performance and corporate real estate stage of development was found, as were associations between a number of organizational factors and high levels of CREAM performance. These included; organizational and portfolio size, qualifications of management, strategic planning, organizational structure, communication, advanced management information systems and decision-making techniques and having an outsourcing strategy.

Keywords:
Corporate, real estate, asset, management, property, performance, strategic, organizations, non-profit, New Zealand, survey, CREAM, factor analysis, stage of development, correlation, outsourcing, qualifications.
ACKNOWLEDGEMENTS

This thesis is dedicated to my parents Cyril and Sheila McDonagh who have always given me every support and encouragement to pursue my education.

I also must thank my wife Carol and children Genny and Sophie for their support and tolerance, particularly over summer holiday periods when I was working on this thesis instead of spending time with them.

Chris Frampton provided me with a great deal of encouragement and support when it was most needed, particularly in respect of help with the statistical analysis of the data, and for this I am most thankful. Finally, I would like to express my appreciation to Peter Nuthall for his review of my draft thesis and the useful comments he passed on.

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Chapter 1

INTRODUCTION

1.1 Aims and Objectives

The primary aim of this thesis was to examine the performance of Corporate Real Estate Asset Management across a wide range of organizations in New Zealand. Gaining a greater understanding of what constitutes Corporate Real Estate Asset Management performance, and the organizational factors associated with high levels of performance should facilitate the development of well founded practices to manage these important assets. In turn this should lead to enhanced overall performance of the organizations adopting these practices, irrespective of their core business activity or profit or not-for-profit categorisation.

From this generalised aim a number of specific objectives were derived.

These were:

- To develop a description of the current practice of Corporate Real Estate Asset Management across a wide range of organizations in New Zealand via analysis of a comprehensive mail survey.

- The identification of changes in Corporate Real Estate Asset Management via a comparison of the results of the above survey with the only earlier research on this topic carried out in New Zealand.
The Performance of Corporate Real Estate Asset Management in New Zealand

- The development of a measure of Corporate Real Estate Asset Management performance based on established theory, then applying and testing this measure utilising data obtained in the above survey.

- Determining whether significant relationships exist between performance, particular organizational factors, and corporate real estate stage of development using the measure of Corporate Real Estate Asset Management performance developed above.

1.2 Definition of Corporate Real Estate Asset Management

Corporate Real Estate Asset Management (CREAM) has been defined as the management (i.e. planning, organizing, leading and controlling) of the real estate assets and related personnel of those organizations whose primary area of business is other than real estate (Zeckhauser and Silverman, 1983).

It is important to recognize it is a complement to the main area of activity of the organization.

In addition CREAM can, and should, be expanded beyond the customary use of the words "Corporate" in its name and "business" used in the initial definition above to include the management of real estate assets in ALL types of organizations.

Examples outside "business" include: not-for-profit organizations such as charities, churches, educational organizations, and health care establishments, as well as government departments, police and emergency services, military forces, public utilities, and state owned enterprises.
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The management of non-investment real estate assets has intrinsically existed since human beings began to make permanent settlements and modified their natural surroundings to better suit their daily activities.

Until recently the management of real estate in these circumstances has often been seen as nothing more than another responsibility of general management - not necessitating any detailed attention. For example, Veale (1988 1989) Gale and Case (1989) and Teoh (1992) both found many managers expressed the attitude "we are not in the real estate business".

However, as businesses have become more complex, specialized and international, there has been a growing awareness of the need for specialist skills in the corporate real estate area. In the USA this has led to the establishment of such groups as the International Development Research Council (IDRC) and the National Association of Corporate Real Estate Executives (NACORE), and in the UK, the International Facilities Management Association (IFMA) whose primary concern is improving the management of corporate real estate assets.

Even more recent has been academic interest in this area. It started with early research by Zeckhauser and Silverman (1983) at Harvard, followed by Veale (1988) at MIT. In both cases the focus was on the business sector. This was stimulated by both the prevalence of aggressive takeovers in the 1980s, in which corporate real estate was an important factor, and the inefficient management of real estate assets that led to this takeover opportunity being recognized.

Later work, especially in the UK (as reported on in chapter 4), focused on gross mismanagement of real estate assets, sometimes with and sometimes without the takeover threat being an issue. Many examples were from the public sector, and though these organizations may not strictly speaking be "corporate" in structure, the "corporate real estate" title has usually been applied. The "corporate" distinction has therefore
evolved to represent a focus on real estate as an input to the production of other goods and services in contrast to the "pure" real estate investment, or "institutional" point of view.

Even so, there is still significant confusion surrounding definitions and nomenclature, especially when a cross-country comparison is being made. In order to address this problem a number of terms used are defined in sections 1.4 and 1.5 below.

1.3 Importance of CREAM

The relationship of real estate to the functional business areas of operations, marketing, finance and human resources is that it interacts with these functions - both impacting on, and being affected by them. As a result CREAM is often carried out unconsciously and not very effectively.

It also applies equally to non-business organizations such as government departments and other not-for-profit organizations, in that they all need to utilize real estate in one form or another in the delivery of their services. Any inefficiency in the management of real estate assets only means the diversion of scarce resources from core activities.

The wide definition of corporate real estate makes it difficult for research to identify the best practices or measures of good performance, as many of these measures are inherently tied to the diversity of goals and objectives of individual organizations.

However, it is clear from both academic research and anecdotal evidence that many organizations do not clearly and consistently evaluate the performance of their property, treating it instead as an overhead cost, like stationery, even though property has a large number of unique characteristics (Veale 1989).
The Performance of Corporate Real Estate Asset Management in New Zealand

How this unique resource is managed can affect both immediate financial results as well as longer term organizational strategy options. In the past the real estate factor has tended to be ignored, or at best under-managed, rather than a pro-active attitude taken towards its utilization (Zeckhauser and Silverman 1983, Veale 1988 1989, Gale and Case 1989, Avis Gibson and Watts 1989, Pittman and Parker 1989, Apgar, 1993 1995).

Part of the reason is that management of real estate does not demand attention, as may be the case with human resource and operational issues. It can often be ignored and the implications not become apparent until sometime later when a decision is forced upon the organization. This may well be at a time when the real estate options are more limited, or more expensive, than would have been the case if the situation had been constantly monitored.

This reactive style of management occurs in spite of the fact that real estate costs are generally second only to payroll costs in the operations of most organizations (Veale 1989) and 25 – 40% of corporate value (Avis, Gibson and Watts 1989, Hylton 1994).

The degree of importance, however, varies significantly between individual organizations and business sectors as examined by Johnson and Keasler (1993). For example, they found that amongst industry groups those categories with the highest percentage of real estate assets to total assets included primary metal industries, general merchandise stores, paper and allied products, chemicals and allied products and electric, gas and sanitary services. The lowest rankings were for security and commodity brokers and depository institutions.

There are also different dimensions to this importance. For example, an organization may have a significant investment in real estate in terms of percentage of total assets, but if these are conventional office or industrial premises that make an efficient contribution to achievement of core operational goals, then the significance may be relatively small.
The Performance of Corporate Real Estate Asset Management in New Zealand

On the other hand, while of relatively little value, real estate assets may be critical to success. For example, where there is a unique building or locational requirement, a need to attract, retain and motivate staff in short supply, potential environmental liabilities or the need to create an image for an organization through building design. All these factors can impart considerable importance to corporate real estate from a strategic point of view.

Early research in the 1980s tended to focus on the issues most critically demanding attention which, due to the state of the real estate market at the time, were primarily financial and cost issues. There was also a need for broad based foundation research upon which more detailed studies could be based in the future (Veale 1989).

Much of this research attention was due to unrecognized appreciation (and depreciation) in real estate values and the role this played in corporate takeovers, management and leveraged buyouts, and company collapses (Berman, Jinnett and Cudd, 1989).

Later in the 80s and early 90s firms experienced increasing debt loads and declining markets so the focus switched to cost control. Similarly, tight capital markets and high interest rates encouraged organizations to seek out other sources of capital, such as the under-utilized equity that many have built up over time in real estate assets. Also, the reversal of the hitherto substantial rise in real estate values of 1980s coupled with a need for corporates to rationalize their holdings as a result of the share market crash, heightened attention on corporate real estate.

The current situation, with rising real estate markets and a buoyant economic situation in the USA, has resulted in a new focus for corporate real estate research that examines the strategic contribution that corporate real estate can make to the growth of organizations (Duckworth 1993, Apgar 1993 1995, Gibson 1994 1995a 1995b).
Those organizations that have earlier addressed the more fundamental cost and financial structure issues are in a good position to consider topics that are more strategic in their orientation and for which a standard answer is not available.

However, a strategic approach is not typical of all organizations in many countries. One of the issues investigated is identifying the stage of corporate real estate development of organizations in New Zealand. In this way efforts aimed at lifting the performance of CREAM in general can be directed at the appropriate level.

Benefits from improved CREAM can also result that are not directly related to the use of the properties themselves (but still provide benefits for the organization as a whole). For example, making an appraisal of an organization's real estate needs may force operational management to stand back from their regular responsibilities and focus on overall core business processes. This can lead to process improvements separate from the real estate issue that may have initiated the process. Similarly, the necessity to specifically determine costs and benefits of real estate alternatives may force operational management to identify and quantify previously loosely defined excuses for poor performance such as "we don't have enough space".

In many organizations initial over-capture of real estate resources has been rewarded with the ability to cross subsidize inefficient core activities, by below market cost allocation of real estate expenses or generation of cash flow, for example from sub-leasing excess space. An increased focus on CREAM will make such activities more transparent and thereby discourage inappropriate actions.

As the provision of real estate resources often takes a relatively long time, careful consideration of these needs may encourage core operational groups to take a longer view than the next quarter or year and, as a result, deliver a more strategic approach to decision-making.
Perhaps the most topical influence of corporate real estate on core business processes is that it may act as a re-design catalyst. An impending lease expiry, or lack of room for expansion, may stimulate examination of new workplace designs, alternative work patterns and new communications technology with a view to enhancing teamwork and productivity as well as solving the real estate problem. Becker and Joroff (1995) and Gibson (1994 1995) have examined these issues in detail.

1.4 Strategic Management Defined

The definition of strategic management is based on that of Drucker (1977) below:

"The prime task of strategic management is thinking through the mission of a business, that is, of asking what is our business? - and what should it be? This leads to the setting of objectives, the development of strategies and plans, and the making of today's decisions for tomorrow's results. This clearly must be done only by a part of the organization that can see the entire business; that can make decisions that affect the entire business; that can balance objectives and the needs of today against the needs of tomorrow; and that can allocate resources of men and money to key results."

Additional important elements include specific consideration of the environment in which the organization is operating and the development of goals, objectives and strategies appropriate to that context. Also a feedback loop should be present in any strategic approach whereby the organization both measures progress towards its goals and objectives and also learns from the successes and failures of previously implemented strategies.
1.5 Organizational Restructuring Defined

For the purposes of this research organizational restructuring is defined as including any or all of the following:

- Major change in the ownership structure of an organization, leading to different governance and decision-making processes. For example, from a government department to a State Owned Enterprise (SOE), or from a private company to a public company.

- Major change in the core business or focus of the organization as a whole, or of work units within the organization. For example, from individual component manufacturer to provider of an integrated solution. Or from a service department focused on reducing costs to a profit centre or subsidiary focused on serving the needs of other units at a profit.

- Major change in the structure of work units within an organization and/or the relationships between work units. For example, creation of a new "Corporate Real Estate Unit" with responsibility for providing the real estate related needs of the rest of the organization.

1.6 Property Management Roles Defined

The management of corporate real estate assets is carried out on a number of levels each having a different focus span of control and degree of responsibility. These differing
"roles" can be placed in a hierarchy, with progressively higher level roles responsible for overseeing, but not necessarily carrying out, the activities of the levels below (see Figure 1.1).

**Figure 1.1 Hierarchy of Roles**

The roles frequently overlap and are often performed by the same person, further confusing the situation. However, as will be examined later, higher levels of CREAM performance and stage of development are often evident when organisations employ
well-qualified individuals to specifically fulfil higher level CREAM roles. For this reason brief definitions of the roles based on those developed by McDonagh (1997) are given below.

**Property Asset Manager Role:**

This role is the broadest in scope and most difficult to define. As well as the umbrella term "Property Manager" this role has been variously described as venture manager, asset manager, equity manager, corporate real estate manager, executive property manager and many others. In this hierarchical structure Property Asset Manager has been chosen as the title because it most accurately represents the decisions made by occupants of this role, i.e. decisions regarding individual property assets.

In this role market and financial analysis are carried out, strategies and plans are developed and decisions made regarding the acquisition and disposition of individual property assets that will best support the core operations of the organization.

It is clear that what is central to the asset management role is strategic planning for the entire ownership life cycle of a particular property so as to achieve client or employer objectives. How and when to acquire, financial structure, when to refinance, how to structure for tax efficiency, how to position in the market, whether or not to refit or change use, when to dispose of the property and the sensitivity of the investment to these and a myriad of other variables are all part of an asset manager’s role.

**Lease Manager or Property Administrator Role:**

In this role the decision to acquire a particular building or property has already been taken by the person with the asset manager role so the remaining responsibilities are less
significant in terms of capital expenditure. The manager's prime responsibility is to
develop and implement a property management plan for the property to apply **within** the
ownership period. This plan must complement the longer-term strategic property asset
management plan and in turn the overall organizational strategic plan, all being aligned
to the client's/employer's objectives.

It is this role that is most commonly termed "property manager" and with which the
general public most readily identify. In the USA use of the term "property manager" is
largely, but not entirely, restricted to this role but in other jurisdictions, particularly
Australia and New Zealand, its use is less consistent.

**Facilities Manager Role:**

The final position in the hierarchy is that of **Facilities Manager**. This is a term that has
recently come into common usage but has been applied to the widest variety of roles and
hence caused greatest confusion.

The definition used in this thesis is that facilities management is adopted as the title
applied to the role that focuses on the physical rather than the financial/strategic, and on
the occupants of the buildings, rather than the owners/investors.

The role involves making daily decisions about all, or any, of those factors that maintain
a property as a safe, comfortable and pleasant environment for the occupants to inhabit.
This includes, but is not limited to: arranging for cleaning, security, rubbish removal,
heating ventilation and air conditioning, energy management, supervision of sub-
contractors and compliance with building and health and safety legislation. Also
included may be preventative and corrective maintenance, maintenance of an asset
inventory, aesthetic enhancement, space planning and otherwise monitoring of the
efficacy and health of the premises. Again this role has in the past often been fulfilled by a person with the title property manager, but with the increasing complexity and scale of modern buildings there is a tendency developing for the physical and technical aspects of building operation to be separated from the leasing, financial and tenant relations activities (McDonagh 1997).

Multiple Roles:

In a Corporate Real Estate Asset Management situation fulfilling several or all of the roles defined above is common (McDonagh 1997). For example there may be no leases in existence and therefore limited responsibilities in terms of lessor/lessee relations, rental reviews, operating expense recovery etc. Therefore, the lease management role is commonly diminished and one person fulfils the three roles of corporate real estate asset manager, lease manager and facilities manager.

1.7 Thesis Outline

Chapter 1 covers the aims and objectives, definitions, importance and benefits of the research. Chapter 2 includes a statement of the specific research questions and the hypotheses to be tested.

The literature is then reviewed in chapter 3 so as to provide background for the research topic and to enable the development of a detailed research methodology. As CREAM is a relatively new area for study the relevant literature is limited, so a review of a number of published case studies from the non-profit sector in the United Kingdom are included in chapter 4 as relevant background.
Chapter 5 describes the methodology employed, which was primarily a comprehensive mail survey distributed to 457 New Zealand organizations with extensive corporate real estate assets. A wide cross section of core business activities were represented including all the listed companies on the NZSE, the largest private companies, all government departments and territorial local authorities, plus the major churches and other not-for profit organizations.

The questionnaire used was developed based on a review of the literature and earlier surveys plus interviews with 47 corporate real estate executives. Most questions required Likert scale or other closed end responses. Some questions were similar to a previous survey undertaken in New Zealand to facilitate comparison. Other questions were based upon overseas research in order to both assess theories developed earlier in a New Zealand context, plus extend the analysis of relationships between performance variables via further statistical testing. A response rate of 42% was achieved.

The initial analysis techniques used were descriptive statistics and histograms, the results of this stage plus a brief commentary on individual questions is presented in chapter 6.

Chapter 7 details the results of the comparative statistical analysis in order to:

- develop a measure of CREAM performance,
- assess the relationship between CREAM stage of development and CREAM performance,
- identify significant factors related to a high level of CREAM performance.

Correlational analysis using the SPSS software package applied to selected questions relating to CREAM performance and stage of development was the technique applied.

The thesis concludes with an interpretation and discussion of the research results in chapters 8 and 9.
1.8 Research Contribution

CREAM is a newly emergent discipline with little in the way of published research prior to the late 1980s. While it has since that time, and is continuing to be, the focus of increasing attention in the United States and the United Kingdom, little academic research has been published outside those countries.

This research contributes to the knowledge of CREAM in a number of important ways.

It tests some of the theories developed and tested in the UK and the USA in an entirely different environment – New Zealand. Here the economy is dominated by agriculture and tourism, rather than the manufacturing dominant in other countries where CREAM research has been undertaken. Theories earlier put forward will be strengthened if commonalties in the management of corporate real estate assets are evident across differing economies.

The research also updates the work of Teoh (1992) by providing insight into the current state of CREAM in New Zealand. It therefore enables an assessment of progress to be made via comparison of responses to similar questions separated by eight years in time. The survey could be repeated again in the future, thereby beginning a time series tracing the evolution of CREAM in a country from its first identification as a separate discipline.

Previous research in the CREAM area has tended to focus only on the analysis of organizations in "business". As illustrated by the government office accommodation example below, businesses are not the only organizations that need to manage real estate assets efficiently and effectively. Other types of organizations where goals, objectives and performance are not as easily quantified as in business are likely to benefit the most from more detailed attention to CREAM, as mis-management of this resource may not be so immediately evident.
This research extends knowledge in this new direction as the survey sample includes a much wider range of organizations than most previous research. It is also of sufficient size to facilitate cross comparison of CREAM performance amongst different organizational sub categories. This enables resolution of the argument over whether the public sector manages its real estate as well as the private sector. It also facilitates identification of those performance factors that are of special importance to particular sub categories of organization.

Another benefit of this research is that it puts forward a methodology for deriving a single measure of CREAM performance for individual organizations that incorporates most of the factors or dimensions of performance that have been identified as significant by earlier research. This was a necessary step in investigating other issues reported on in this thesis, but such a performance measure may also be useful to future research into other aspects of CREAM.

It is apparent that there may be a relationship between CREAM performance and CREAM "stage of development" as defined by previous researchers (Joroff, Louargand, Lambert and Becker, 1993). This issue was also investigated with the intention of clarifying whether these two concepts were fundamentally different, closely related or essentially the same.

If fundamentally different then combining a measure of performance and stage of development may provide an enhanced understanding of why CREAM is seen as successful in some organizations and not others. If essentially the same, then it may be preferable to focus on only one measure. If a more complex relationship exists, for example, a particular stage of development is a pre-requisite for a higher level of performance, then further research may be warranted to determine the nature of this relationship.
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The final part of the research identifies whether a wide range of specific organizational and management characteristics are statistically significant in explaining higher levels of CREAM performance. This should help organizations improve their CREAM performance by focusing attention on those characteristics, management practices and attitudes that have been found to be effective rather than relying on anecdotal evidence or trial and error approaches.

1.9 Conclusion

In the New Zealand context there are signs that general appreciation of the importance of CREAM is increasing. Political and media attention regarding the poor performance of the Government in the area of office accommodation management resulted in the instigation of a State Services Commission Review (1991) and the subsequent establishment of the Government Office Accommodation Task Force.

There has subsequently been a raised industry awareness of CREAM issues (although not necessarily referred to by the term CREAM) evidenced via the numerous professional seminars on both public and private sector property asset management. There has also been a more frequent appearance of relevant articles in industry journals and newspapers.

As can be expected these presentations are largely anecdotal, issue-based exposes. In contrast, this research applies a rigorous academic approach to the collection and analysis of data and is free of the biases, conflicts of interest and other constraints that may apply to research carried out by organizations without the independence of a university.
Chapter 2

THE RESEARCH QUESTIONS

2.1 Introduction

Corporate real estate is a relatively new area of academic study and a wide range of issues need research. It was decided that there was a single chance to get a good response rate to a mail survey of corporate real estate executives in New Zealand. The market is relatively small and multiple surveys on aspects of CREAM were likely to target the same respondents with a diminishing response rate as individuals became jaded at the prospect of another survey. The questionnaire used was therefore quite comprehensive but only some of the data relationships are examined in detail in this thesis.

2.2 Research Question 1. - What is the Current State of Corporate Real Estate Asset Management in New Zealand?

As very little research has previously been carried out on this topic in New Zealand it was considered essential to first gather basic data on the operational property portfolios of a wide range of organizations holding substantial real estate assets and determine how such assets were managed. The data would facilitate comparison with overseas research and also provide a base point against which progress could be measured by future research.

This research question did not lend itself to hypothesis testing and therefore the results are presented as a descriptive analysis of the current state of CREAM in New Zealand.
2.3 Research Question 2 - Have Significant Changes Taken Place in the Management of Corporate Real Estate Assets in New Zealand Since 1992?

The only substantial previous research in a New Zealand context was the work by Wei Kuim Teoh (1992). While Teoh’s research had a narrower focus, considering only those non-property investment companies listed on the New Zealand Stock Exchange, it was considered useful to draw comparisons between these earlier findings and those reported here. For this reason a number of questions in the mail survey had a very similar format to that used earlier by Teoh.

HYPOTHESIS

There has been no significant change in attitudes towards, and the practice of, managing corporate real estate assets in New Zealand over the last seven years.

2.4 Research Question 3 - Can a Simple Model of Corporate Real Estate Asset Management Performance be Developed?

As different organizations require different things from their real estate assets there is no easily identified single indicator of “good” performance. A foundation of this research was to determine if the relationships between a range of CREAM performance “dimensions” or “factors” identified in overseas research also applied in a New Zealand context. In addition, an attempt was made to combine these “dimensions/factors” into a single holistic measure representing overall CREAM performance.

This question requires a number of hypotheses to be tested, each of which builds on the previous hypothesis to provide a general answer to the research question.
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Firstly, are respondents consistent in their responses to multiple questions in the survey addressing the same performance issue?

HYPOTHESIS (i)
Survey respondents are inconsistent in their responses to multiple survey questions addressing the same CREAM performance issue.

This first step generated a sub-set of variables for testing hypothesis (ii).

The next step was to determine if respondents exhibited strong correlations across specific questions dealing with different aspects of CREAM performance. Previous research (Veale 1988 1989, Pittman and Parker 1989) has found that different factors or dimensions of performance are usually strongly correlated within individual organizations. The objective here was to test for the same relationship in a New Zealand setting.

HYPOTHESIS (ii)
No statistically significant correlation exists between any of the variables reflecting different CREAM performance factors or dimensions of performance established by earlier research.

The last stage in finding an answer to Research Question 3 was to develop a single measure of CREAM performance to attach to each organization in the survey by applying factor analysis to the survey data. The null hypothesis reflecting this process is stated below.

HYPOTHESIS (iii)
No single factor measure can be derived that adequately represents the combination of multiple CREAM performance factors or dimensions of performance established by earlier research.
2.5 Research Question 4 - *Is There a Relationship between Corporate Real Estate Asset Management Performance and “Corporate Real Estate Stage of Development” as Defined by Previous Researchers?*

Joroff, Louargand, Lambert and Becker (1993) have proposed the concept of corporate real estate stage of development and identified organizational characteristics typical of each of five stages (see chapter 3). Some of these characteristics also appear to be reflective of CREAM performance and the question addressed was whether performance and stage of development are essentially the same concepts, closely related or completely independent?

**HYPOTHESIS**

*There is no relationship between Corporate Real Estate Asset Management Performance and “Corporate Real Estate Stage of Development” as defined by Joroff, Louargand, Lambert and Becker (1993).*

2.6 Research Question 5 - *Are Particular Organizational Factors Associated with High Performance Corporate Real Estate Asset Management?*

This question necessitated resolving Research Question 3 before the main research question could be addressed. In particular an understanding of, and measure of, CREAM “performance” had to be first established. Once this issue was resolved was it possible to identify individual characteristics of organizations that were significantly associated with CREAM performance levels?
HYPOTHESIS

No individual organizational factors can be identified (for example; structure, core business, size, management practices) that are significantly associated with high levels of performance in respect of Corporate Real Estate Asset Management.

The above hypothesis could in turn generate a large number of sub-hypotheses relating to individual organizational characteristics on which data was collected. In the interests of brevity these have been omitted, and only significant correlations are commented on in the results (chapter 7) and discussion (chapter 8).
Chapter 3

REVIEW OF PREVIOUS LITERATURE

3.1 Overview

Corporate Real Estate Asset Management is, fundamentally, the application of general business management techniques and real estate management principles to operational (as opposed to investment) property assets. As such, much of the research reported in the general management literature, for example strategic planning principles, can be adapted and applied to the corporate real estate situation. In recent times there has been a trend to consider all businesses infrastructural requirements, such as human resources information technology and corporate real estate as having some characteristics in common. This provides the potential for increasing crossover of research from these parallel and more widely researched disciplines into the CREAM area. However, consideration of such a broad research background is beyond the scope of this thesis, which instead focuses on the limited amount of CREAM research published to date that is directly relevant to the research questions.

CREAM has only received focused attention from academics since the 1980s. As a result a soundly based research literature is only slowly becoming established. To date research contributions have predominantly come from industry practitioners, and have tended to be anecdotal and intrinsically tied to the particular situation they are dealing with. In addition, practitioners often miss the underlying reasons for their success and rarely present their arguments and data in sufficient depth for it to be susceptible to critical analysis. As a result, inconsistency in the approach adopted by organizations for the management of real estate assets has been observed.
Early work of Zeckhauser and Silverman (1983), Nourse (1986), Avis, Gibson and Watts (1989) and Veale (1988 1989) defined and identified the scale and importance of CREAM and introduced some preliminary best practice principles. Subsequently generalized investigations of the practice, impact and importance of the real estate function on overall corporate performance have been carried out.

For example, Gale and Case (1989) examined thirty large firms in fifteen industries using case study and interview methodologies. They found executives had an ambivalent attitude towards corporate real estate resulting in a sub-optimal utilization of this asset. The most common reply was characterized by “we are not in the real estate business”. Other comments indicated the task was left to accountants or financial analysts. The vast majority saw real estate solely as a cost of doing business with little strategic potential and recorded at “book” value.

Avis, Gibson and Watts (1989) surveyed 800 organizations and interviewed 51 executives in the UK and found while real estate holdings were significant, the management style was reactive, with serious consideration of real estate issues only given when organizations were under severe profit or cost constraints. Most organizations did not have clear property objectives, management structures or information systems. As a result there were few measures of property or management performance and the real estate dimension was rarely incorporated into overall strategic planning.

Apgar (1993) found limited examples of good CREAM performance but overall similar results to those above. For example in a survey of fifty large publicly listed companies in the USA he found 66 percent of the respondents were unable to respond to the questionnaire as they did not have sufficient data on their corporate real estate assets.

All of the above, as well as several other similar studies, have been broad in scale, laid plain the issues, reached similar conclusions and opened up areas for further examination.
More specific research on the macro-economic impact of corporate real estate includes Johnson and Keasler (1993), who quantified the dollar magnitude and relative importance of corporate real estate by industry sector and asset subtype.

More recently the trend has been to examine the strategic dimensions of corporate real estate (for example; Gibson 1991 1994 1995, Duckworth 1993, Apgar 1995) reflecting both the maturing of the field and the return to a more expansive economy in USA and UK - the markets in which the majority of corporate real estate research has been carried out. There has also been the impact of the communications revolution, lower barriers to entry and far shorter periods of competitive advantage. This has led to a fundamental rethinking of strategic management theory. The focus has moved from efficiency to flexibility and the capacity to cope with change. This has significant implications for CREAM, as real estate assets, as traditionally provided, are inflexible, long-lived and capital intensive.

3.2 Measurement of CREAM Performance

A problem precluding the ready establishment of a set of “good practice principles” has been the need to “identify and characterize those organizations that appear to be most effective in managing their real estate assets” (Veale 1989, p.11). In other words establish some universal measure of “good performance” in respect of CREAM.

Identifying good performance in a corporate real estate situation is much more difficult than for traditional "investment" real estate or for the corporate organization as a whole, where overall output measures such as the internal rate of return, return on equity, return on assets etc are in common use.

The outputs of a corporate real estate unit are usually the internal inputs to another part of an overall process. For example, the output may be the optimal provision of real estate assets in order to facilitate the achievement of core organizational goals. As such they are likely to be closely tied to the nature of the organization, may have
no market in which performance comparisons can be made and therefore be very
difficult to measure across a range of differently structured and focused
organizations.

In addition some organizations with substantial real estate assets may well be non-
profit making by nature, for example government departments, social agencies or
churches. In these cases where most, if not all, outputs are measured in socially
derived qualitative measures, traditional business performance measures may be
inappropriate.

Even in a profit orientated organization the provision of appropriate real estate assets
may not in itself be a profitable exercise, particularly if the corporate real estate unit
is organized as a cost centre rather than a profit centre. However, in combination
with other inputs such as personnel, capital, information and technology, the
contribution that real estate makes to the overall performance of the organization
may be substantial.

As the contribution or outputs of a corporate real estate unit are difficult to measure
across a range of differently structured and focused organizations, attention has
focused on inputs to, and the process of, corporate real estate decision making
(Gibson 1995a). The theory is that if there are better inputs, systems and processes to
deal with real estate, then better decisions more in line with the organizations overall
goals will result.

In an attempt to establish some readily identifiable indication of good performance
using this approach, Veale (1989) suggested examining the “methods employed by
the respondents” (p.12). He put forward and tested for significance seven
“dimensions”, amongst CEO’s namely;

- the presence of a formal, organized real estate unit,
- the use of management information systems for real estate operations,
- the use of property by property accounting methods,
- the frequency of reporting real estate information to senior management,
• the exposure of real estate executives to overall corporate strategy and planning,
• availability of information and methods for evaluating real estate performance and use,
• the performance of real estate assets relative to overall corporate assets.

A similar type of approach was also adopted by Pittman and Parker (1989), who surveyed corporate real estate executives on what factors and characteristics they believed were important to a top performing CREAM department. They came up with a “divergence” based model of CREAM performance that identified the following variables as being significant:

• centralized real estate authority,
• a comprehensive computerized corporate real estate inventory,
• senior reporting level,
• having a profit centre structure,
• communication with CRE staff regarding overall corporate goals,
• having a formal real estate plan,
• real estate staff size relative to real estate assets.

The close similarity to the findings of Veale (1989) is obvious indicating a high degree of consensus on the prerequisites for good CREAM performance. However it is possible that this consensus is due to a similar group of respondents being targeted, in this case CEO’s and corporate real estate executives. If business unit customers or service providers were questioned the results may have been different. This may be a worthwhile area for future research.

Many of these factors or dimensions have been individually examined in more detail by other authors as discussed in the following sections.
3.3 Corporate Real Estate and Organizational Structure


There appears to be a trend of increasing use of specialized real estate management units and subsidiaries, and in recent times, the outsourcing of some or all CREAM responsibilities.

The existence of a CREAM unit has been found to be significant in terms of a company’s performance thus reinforcing the notion that active management of real estate will contribute to the overall success of an organization (Veale 1988 1989, Teoh 1992). Also a relationship between establishment motives and the structure of the real estate unit has been recognized by Rutherford and Stone (1989).

More controversial is the effect of structuring the real estate unit as a profit or cost centre. Beherens (1982) and Plattner and Ferguson (1991), tend to favour the profit centre alternative as being the most effective, but academic findings (Rutherford and Stone (1989), Avis, Gibson and Watts (1989) and Veale (1989) reveal no empirical evidence of a significant advantage with either a profit centre or cost centre structure.

Outsourcing has been a dominant theme in CREAM restructuring during the 1990s. For many organizations corporate real estate asset management is seen as a non-core activity and in response to increasing demand, corporate real estate service providers have emerged from the traditional investment property management sector. Such providers have vigorously promoted the advantages of outsourcing but there have also been reports of outsourced services not delivering the claimed benefits or other more serious problems with the practice.

Significant agency issues arise in this type of situation. For example, writers’ views often appear to be significantly influenced by their position as either a service
provider seeking new opportunities, or as a corporate real estate executive who may be threatened by outsourcing possibilities. Independent rigorous analysis is necessary, a few examples of which are outlined below.

In a 1997 NACORE/Deloitte&Touche survey (reported in Facilities Design and Management 1998) 40% of respondents reported increased outsourcing in the previous three years. In an earlier study (Cam, Black and Rabianski 1996) outsourcing was seen as a common way to enhance the provision of corporate real estate services in a cost-effective manner. Corporate real estate executives also expected the outsourcing trend to continue (Carn et al 1996).

However, Bergsman (1995) found that after an initial wave of outsourcing many organizations were re-evaluating the cost effectiveness and overall benefits of the practice. Bill Concannon, CEO of Trammell Crow Corporate Services, is quoted by Bergsman (1995) as stating “When the corporate real estate function is designed to include an outsource feature, it is hard to go back and change that to something different” (p41). Similarly Jim Ricker of Codman Services Inc. states in the same paper “We don’t see outsourcing as a fad or trend, but something that is gaining long term acceptance” (p42).

A major study of outsourcing was undertaken in by Kimbler and Rutherford (1993), they observed that corporations were outsourcing more of their real estate requirements and that providers were increasing staff to meet the demand. This applied even for those organizations with the internal capacity to carry out the work outsourced.

A section of the survey used in this research was devoted to outsourcing but the literature and data is not analysed in any detail as it was the focus of a separate earlier study (McDonagh and Hayward, 2000). However, outsourcing variables are included in the correlational analysis in order to determine if the practice is associated with high levels of CREAM performance, or is simply an alternative delivery channel.
3.4 Corporate Real Estate Information Systems

As an indicator of the state of development of CREAM within an organization, the existence and form of real estate inventories has been studied by a number of authors including Zeckhauser and Silverman (1983), Avis, Gibson and Watts (1989), Veale (1988 1989), Nourse (1989 1990), Gale and Case (1989), Teoh (1992), and Apgar (1993).

Zeckhauser and Silverman (1983) stated that prudent decision-making requires monitoring data on the changing costs of utilities, insurance, taxes, repairs and maintenance, reserves and debt servicing. It is extremely difficult, if not impossible, to make informed real estate decisions without an independent real property management information system.

Veale (1988 1989) found that many of the corporations he surveyed were unsure of the area they owned (19%) or leased (24%). One in four did not maintain a property inventory of any kind and 66% had inadequate information available for ongoing management of their real estate assets.

Gale and Case (1989) found a higher percentage (90%) having some form of real estate record but often this was historic and maintained by the accounting department and not readily available or suitable for effective decision-making.

In Teoh’s (1992) survey only 39% of respondents maintained a real estate inventory of any kind and 7.3% a separate real property management information system. The most common reasons given for this were that “the costs of such a system were not justified” (22.6%), followed by “cannot convince top management” (15.7%) and “real estate functions/ responsibilities too decentralized”.

Redman, Johnson and Tanner (1994) surveyed 986 members of NACORE and found that while 96% of respondents had the lease documents pertaining to their properties, only 34% had information on current market rents payable on similar properties. A number of other characteristics of corporate real estate inventories were examined in
detail and it can be concluded from this study that historic information for accounting
purposes dominates current systems with relatively little current market information
and other data that would aid future decision-making. The report points out that
while useful new techniques are being developed by academics, they often assume
corporates already have, or can obtain, the basic input data needed, but this is often
not the case.

Apgar (1993) reinforced the above findings in a survey of 50 large public companies
carried out in conjunction with KPMG Peat Marwick. He found “two thirds of the
respondents told us they wanted to participate but could not because they did not
have the data, though they thought they should and were interested in learning the
results of the survey”.

It is obvious that if you do not have accurate information on what you own or lease,
and what it is currently worth, it is impossible to manage these assets optimally. It is
surprising therefore, that so many organizations have managed to survive while
knowing so little about their real estate assets. An improvement in the state of
corporate real estate management information systems can therefore be seen as a
prerequisite to higher levels of CREAM performance, and as this issue is relatively
easy to determine it can be used (in conjunction with other factors) as a primary
indicator of CREAM performance.

3.5 Communication Within the Organization

(1992), Nourse (1994) and other authors have found that along with the
organizational structure and inventory variables discussed above, communications
and working relationships with management, finance and operating divisions are
extremely important.

The number of levels away from, and the frequency of contact with, the CEO were
used by all the above as measures of the efficiency and effectiveness of
communication, and found to be significant. Also important to effective communication was the existence of centralized real estate authority, having an established corporate real estate strategic plan, and regular exposure and input to this plan by corporate real estate staff.

There have been a number of studies examining the impact of corporate real estate decisions on both the financial options available to organizations, as well as the perception of the organization in the financial markets as reflected by share price movements. Examples include; Neidich and Steinberg (1984), Tung (1988), Rutherford and Nourse (1988) and Healey, Papert and Shepherd (1990).

These studies highlight the necessity for corporate real estate activities to be analyzed and expressed using techniques familiar to the finance markets if communication is to be enhanced. Holst (1987) express this as follows “Corporate finance and corporate real estate analysis are synergistic....The two departments must work hand in glove and should be communicating with each other on a regular basis in a common financial language” (p 137).

3.6 Attitudes Towards Corporate Real Estate


Their results have consistently shown a positive relationship between chief executive attitude and CREAM performance as measured by the performance proxies outlined in section 3.2 of this chapter. More direct measures, or benchmarks, as identified by Noha (1993) and Apgar (1993) such as total occupancy cost per employee, space use per employee, occupancy cost per square metre, space quality, location, and weighted average lease term would enhance the objectivity of the analysis, but these types of measures are very sector specific and present considerable difficulties for consistency of data collection.
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Unfortunately, to date there has been little research carried out into the effect on CREAM performance of the attitudes of those in positions in other than the CEO.

Pittman and Parker (1989), and Gale and Case (1989), indicate that attitudes and functional/hierarchical relationships within an organization have an effect on corporate real estate management effectiveness. Therefore, an attempt to further examine the association between CREAM performance and the attitudes and relationships of the person directly responsible for the management of corporate real estate was made. For example the property manager, asset manager or facility manager (or whatever else they may be called) and the CEO all need to be considered.

3.7 Corporate Real Estate and Strategic Planning


Levy and Matz (1987) conclude that the success of the CREAM techniques employed to achieve corporate strategies can have “a dramatic positive or negative effect on the corporation’s bottom line.... future market share, expansion potential and overall profitability” (p.60).

Avis, Gibson and Watts (1989) found business and political decisions had short lead times often making it difficult to accommodate the longer planning period required for property. This led to little CREAM strategic planning and a reactive approach to property needs.

Nourse and Roulac (1993) developed a model of the interdependency of CREAM decisions and conclude that; “Too often, real estate transactions are approached predominantly from a deal-making rather than a strategic posture” (p.493).
They also stated that economic issues should not be the focus at the expense of strategic issues and that explicit consideration of how a real estate decision supports overall corporate strategic objectives is essential.

Duckworth (1993) presents a methodology for reconciling the tradeoffs discussed in the above article using a decision matrix and statistical quality control techniques derived from general management literature. He maintains that while matching organizational resources with environmental conditions is well researched in classical business policy research, these concepts have rarely been applied to CREAM situations.

“Real Estate Strategy – a new management paradigm” is put forward by Apgar (1995 p.23) as involving developing scenarios in three dimensions – Space, Functions and Time - in order to conceptualize different CREAM portfolio alternatives. Apgar then presents case study results from applications of this method that show significant reductions in occupancy costs and/or increase in efficiency of use of real estate assets.

Strategic management in the context of organizational change was taken up by Gibson (1995). Her challenge was for property professionals to familiarise themselves with the changes impacting on businesses in general, or become increasingly marginalised in organizational decision making processes.

Gibson asserts trends such as changing organizational structures, work practices, technology, and the increasing number of stakeholders, should be considered as they will all impact on the way real estate assets are managed. Involvement of real estate in the strategy of the organization was highlighted as being essential - strategic thinking being rated as the number one priority skill for the future, by a survey of 1246 general managers by the Institute of Management (Gibson 1995b p.110).

Gibson states that while retailers are acutely aware of having the right type of building and internal environment to support sales, it is only recently that other businesses have recognized the contribution to productivity of having a building that
encourages teamwork and creativity, conveys a consistent and appropriate message, can cope with new technology, yet is flexible, cost effective, contributes to morale and is conveniently located.

3.8 Corporate Real Estate Stage of Development

Except for the key factors already mentioned, research to date has generally had difficulty in establishing any consistent pattern in terms of characteristics that may influence or reflect CREAM performance. For example the MIT (Veale 1988) and Harvard (Zeckhauser and Silverman, 1982) surveys showed little relationship between the size, type, geographic distribution and value of a corporate real estate portfolio and how effectively it was managed in terms of the dimensions or factors put forward by Veale (1989) or Pittman and Parker (1989).

The question is then raised as to what other factors can explain the presence of effective CREAM in one organization and not another?

It may be that an explanation of this variation is not only tied to the differing objectives of organizations examined, but is also related to the stage of development in terms of CREAM that the organization exhibits.

Additionally, the stage of development may well be linked to the life cycle position of the organization and its products and services.

Corporate Real Estate 2000 is an ongoing comprehensive research programme sponsored by the Industrial Development Research Council (IDRC) in the USA. The programme has been progressively examining multiple aspects of corporate real estate asset management utilizing the skills of both academic researchers and industry leaders.

The "Phase One" report authored by Joroff, Louargand, Lambert and Becker (1993) was wide-ranging and examined how the changing business environment influences
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The corporations need for corporate real estate services. The results of a comprehensive survey and interview programme reiterated the emerging strategic importance of real estate as the "fifth resource" and highlighted important questions to be answered in order for corporate real estate managers and service providers to maximize their contribution to the overall performance of their client organizations. Many of the issues raised were the same as investigated by other researchers and include organizational, financial, informational and workplace strategies. Some of these have subsequently been individually addressed in more detail in "Phase Two" Corporate Real Estate 2000 reports.

A major new contribution in Phase One of the IDRC research was a five stage model of corporate real estate unit evolution that can help place other issues in a more closely defined context and potentially help reduce the amount of unexplained variability experienced.

The five stages were:

1. **Taskmasters** - supply the corporation’s physical space as required.

2. **Controllers** - satisfy senior managers’ need to better understand and minimize real estate costs.

3. **Dealmakers** - solve real estate problems in ways that create financial value for business units.

4. **Intrapreneurs** - operate as an internal real estate company, proposing real estate alternatives to the business units that match those of the firm's competitors.

5. **Business strategists** - anticipate business trends, and monitor and measure their impacts. These units contribute to the value of the corporation as a whole by supporting the companies’ core competencies with real estate strategies that optimize business results.
These stages reflect evolution from a focus on the administrative and technical to the financial and strategic.

Skills used in each stage build on competency at the previous stage, and each stage requires an increasing level of involvement in strategic planning for the organization. Moving through the stages individual decisions become less frequent but more important, they involve a wider group of stakeholders, more complex interactions and have longer term consequences.

The report goes on to examine how consideration of a number of different aspects of an organization’s operations can give an indication of the "Stage" of the model it is operating at. For example, financial management can be used as an indicator of the stage of development - traditional cost accounting indicates stage 1 or 2 whereas current market value, cost of capital, portfolio and option pricing approaches indicate higher levels of development.

Using “scope of decision making” as a parameter, the first three stages (Taskmaster, Controller, and Dealmaker) predominantly involve internal project-level work. Stage 4 (Intrapreneur) addresses organizational portfolio-wide needs, focusing outward to trends affecting business units, whereas Stage 5 (Business Strategist) tackles company-wide competitiveness. The upper level stages involve factors traditionally outside the bounds of the corporate property manager.

The same type of approach was also applied to organizational structure, information technology and workplace strategies - progressively building a picture of the corporate real estate stage of development as a whole.

It was stressed that no one stage is inherently better in all circumstances than another, what is more important is the degree to which the real estate unit currently matches the needs of the larger corporation and its stakeholders. It is however, apparent that the demands of a competitive marketplace will force all organizations to progress up the scale if they are to survive and prosper.
The five stages described above are cumulative rather than sequential. Most corporations exhibit characteristics of more than one stage at the same time. However, by looking at a range of issues an overview of an organization's stage of development can be arrived at.

An important question to be addressed is whether the stages of development identified by Joroff, Louargand, Lambert and Becker were essentially an alternative measure of performance to the dimensions/factors identified by Veale (1989) and Pittman and Parker (1989), or related in another more complex manner. Alternatively, possibly measuring the stage of development is essentially different from measuring performance and therefore the two measures could be usefully combined to provide an enhanced understanding of CREAM.

Consequently, a combined measure of CREAM performance based upon factor analysis of the performance variables identified by Veale (1989), Pittman and Parker (1989) and the other researchers mentioned above was first defined. This new measure was then used to examine the correlation between CREAM performance and the corporate real estate stage of development as identified by Joroff, Louargand, Lambert and Becker (1993). A high correlation across all stages of development may mean a single measure of performance is appropriate. Alternatively a lack of correlation may mean performance and stage of development are essentially different phenomena, or related in a more complex manner. In such a case separate performance assessments for each stage of development may be preferable.

3.9 Organizational Life Cycle

A related but separate aspect of the Joroff, et al (1993) report was consideration of the overall life cycle stage of an organization and the impact life cycle stage has on the decision-making processes used. In turn these decision-making processes may reflect on the stage of development forced on the corporate real estate unit in order to mesh effectively with the core business.
The organizational life cycle model is well established in management literature and Joroff et al (1993) comment as follows on the four phases of: - Startup, Growth, Maturity, and Decline.

**Start-up**
The start-up phase is one of opportunity identification, invention and creation. Risks are taken and the exact form of the organization is highly uncertain. Real estate costs are less important but flexibility is paramount. For organizations, questions may include: should new ventures be stand-alone locations that have separate identities from the parent in case they fail, or should they be fully integrated with existing activities to highlight the new direction of the company?

Application of traditional capital budgeting techniques such as IRR in this start-up phase is difficult since knowledge of future needs and costs is limited. But poor real estate decisions can have significant strategic implications.

**Growth**
During the growth phase the eventual shape and size of the market may still be unknown but as products and services establish themselves the uncertainty reduces. A worldwide trend is for growing organizations to locate together in "growth poles" associated with particular industries - high tech companies being the most obvious example. Growth poles usually have at least two characteristics: first, a reliable, educated workforce, and second, the synergistic results from the proximity of individuals and firms. A low-cost solution may not be best from a strategic standpoint in this stage.

**Maturity**
In the mature phase, organizations exist in an established and competitive marketplace. Uncertainty is reduced and efficiency becomes more important than exploiting opportunities. The size of the market is known and the focus is on taking market share from competitors, as this is easier than attracting new customers to the market. Prices are stable, or under downwards pressure, reducing profit margins and focusing attention on costs. A portfolio approach dominates with questions such as;
Is there a better use for these resources elsewhere in the organization? How will this decision affect the total organization? Will this decision maximise the return on assets? Does a particular investment choice have positive, neutral or negative correlations with other elements of the organization?

Decline
Organizations and products in decline are often seen as "cash cows". Initial set up costs have long ago been amortized and as a result products can generate substantial cash flows. These cash flows can subsidize the start-up and growth of other products and services. Cost-minimisation is paramount as markets are either stable or shrinking and competition has driven out large profit margins. Cash flows are relatively easy to forecast and as a result traditional capital budgeting techniques dominate decision-making.

Using the above conceptual framework, this research also examined the relationship between overall organizational life cycle stage, CREAM performance and stage of development. Included was whether a major restructuring or re-engineering of an organization, that is often associated with movement through the stages of the organizational life cycle, is also significantly associated with changes in CREAM performance, or stage of development.

If such relationships are found to exist the next important question (beyond the scope of this thesis) is whether this change in management of corporate real estate assets is a symptom of the restructuring process or a pre-requisite for effective restructuring.

3.10 Summary of Literature Review

CREAM has not existed for long as a recognized discipline of management and as an academic topic it has only come in for focused attention since the 1980s. As a result only a limited number of academics are working in the area and a soundly based research literature is only slowly becoming established.
Much of that which has been published in academic journals to date tends to be
generalized statements of the current position and problems to be addressed or
specific investigation into a limited number of areas. This is, however, changing with
more recent articles becoming more focused. There is also an increasing transfer of
ideas from other service areas of business such as human resource management and
information technology. It is increasingly being recognised that integrated provision
of flexible infrastructure of all types will be essential for future success in
organizations.

There is general agreement that measuring and comparing CREAM performance
across different organizations is difficult and that an inputs and process approach is
usually the only practical option. There is also consensus, at least amongst CEO’s
and corporate real estate executives, as to the inputs and process factors that are
important.

A number of CREAM studies have investigated some of these input performance
factors in more detail. These include; organizational structure, information systems,
communication, management attitude, strategic planning, stage of development and
organizational life cycle stage.

There are other performance measurement techniques from outside the corporate real
estate field that could also be usefully applied to some of the issues identified in this
research. However, in the interests of further developing a theoretical thread already
proposed in the CREAM literature, as well as drawing comparisons across time and
between countries, it was decided for this study to base the research methodology on
an approach that had already been applied to corporate real estate.

Recognising that the corporate real estate literature is limited a number of published
case studies were also examined which is the focus of the next chapter.
Chapter 4

REVIEW OF NON-PROFIT SECTOR

CASE STUDIES

4.1 Introduction

There has been relatively little research into CREAM in not-for-profit organizations such as charities and churches, public utilities, educational organizations or government departments, all of which are significant owners of property assets.

Silverman (1990) looked at asset management in small universities in the USA. In an analysis of 231 institutions it was found that real estate comprised 40-60% of their total assets, but that the people concerned with finance, and those managing land and buildings, “either do not speak the same language or speak it in distinctly different dialects” (p.2). Little focus was directed at ensuring continued efficient use of appropriate real estate resources via pro-active management. It was more a reactive process to perceived need and subsequent “accounting rather than accountability” (p.5). Silverman advocated the application of pro-active asset management techniques derived from the business sector and the use of ongoing and transparent means of performance evaluation. This included setting up an inventory of physical assets, coordinating the corporate real estate function and decision making and monitoring function, and developing goals and objectives to be achieved by real estate assets so that they support the overall organizational objectives.

Simons (1993) examined local authority CREAM and compared Cleveland, Ohio with the Swedish situation as reported by Lundstrom (1991). Again the fundamental issues of real estate inventories and information systems, centralized and professional real estate authority, strategic planning and established decision-making processes, and property by property accounting and performance monitoring came to the fore.
He concluded that the measures of good performance identified by Veale (1989) also largely applied to the local authority situation and called for further research into a wider range of governmental agencies in order to identify the determinants of good CREAM performance.

The Office of the New Zealand State Services Commission (1991) carried out a review of several government departments’ corporate real estate performance over the late 1980’s, and Emary (1992) later examined the performance of the Government Property Services Corporation in a similar case study. Both concluded CREAM performance had been decidedly lax, but large scale economic restructuring and the substantial downturn in the property market post 1987 had compounded the problems identified.

There have, however, been substantive analyses of CREAM in the public sector in the UK. Much of this research has involved detailed case studies and while these may predominantly identify problems and solutions particular to the situations under investigation, they also provide valuable insight to the general operation of CREAM in large organizations undergoing significant change. A number of these case studies are examined below.

4.2 University of Reading Studies

Gibson (1991) drew a comparison between the public and private sectors. In order to do so it was necessary to establish a common measure of effectiveness (which can also be viewed as performance). This was defined as “the contribution which property makes to the organization overall” (p.5). One of the participants in the survey undertaken by Gibson described it as “having the right property in the right place at the right time at the right cost” (p.5).

Defining what is "right" in the public sector is not easy though, as in most cases, the property contribution is embedded in the performance of the main activities. An alternative approach is to consider what will be the costs of having an inadequate, or
inappropriate, property resource, but again the results will be primarily dictated by the circumstances.

As a result Gibson chose a holistic approach to the assessment of corporate real estate performance, looking at the overall process rather than specific output measures. If the process is appropriate and well executed then the outcomes should reflect the particular needs of the organization in question.

Inclusion in the strategic planning process was one of Gibson’s primary indicators of performance, as without this involvement good performance may be jeopardized as it is focused in the wrong direction or on the wrong issues. This is entirely consistent with the findings of many other researchers such as Levy and Matz (1987), Veale (1989), Pittman and Parker (1989), Avis, Gibson and Watts (1989), Nourse and Roulac (1993), Duckworth (1993), Joroff, Louargand, Lambert and Becker (1993), Stephens (1994) and Apgar (1995).

Collecting adequate information for control and decision making and subsequently monitoring progress towards achieving objectives and goals are also input and process measures discussed by Gibson and many of the above writers.

Gibson compared the findings of the various reports on the public sector in the UK (detailed in the next sections) with the results of her own study of 250 private sector organizations. It was concluded that the private sector has major weaknesses many of which are similar to those of the public sector.

In particular these were characterized as attitude problems, the latter already being clearly identified by Veale (1989) as applying in the US situation, and process problems - in particular a reactive approach outside of a formal strategic planning framework.

Attitude problems were identified by Gibson as the more difficult to correct but can be influenced by education on the importance of CREAM and, in particular, by real world examples of the significant benefits that can flow from a successfully
implemented pro-active CREAM strategy. Similarly, case studies from situations where CREAM has been ignored can provide useful lessons.

Gibson asserted that recently experienced financial pressure has forced organizations to place property on their strategic agenda where they would not have done so in the past.

Process problems were assessed as being easier to correct than attitude problems, as in many cases the people involved are looking for a solution and if a superior process can be conveyed to them they will readily adapt it to meet their particular set of circumstances. Often all they need is an outside consultant’s recommendation for a process that they may already be disposed towards, but have been unable to implement in the political environment of the organization.

Lack of strategic property planning was the most pervasive process problem that Gibson identified. Unfortunately this is often also tied to the attitude of senior management who do not see real estate decisions as important enough to be part of the overall strategic planning process.

Without the objectives and goals inherent in a strategic approach Gibson states it is almost impossible to manage pro-actively, or adequately assess the performance of a corporate real estate unit. Similarly, without these measures it is difficult for the corporate real estate unit to assert its importance to the organization as a whole, and it tends to be relegated to a cost centre level of development with a narrow level of expertise and influence.

Being excluded from the strategic process leads to a two-way communication gap - the property people do not understand the intricacies of operations and the operational people do not understand the functioning of the real estate market. When the information systems for both sections are inadequate and/or compiled upon different bases this only compounds the problem.
Also the dual role of corporate real estate units, taking a "landlord" type approach in controlling the use of assets vs providing a service to the occupying "tenants" can create confusion of objectives and perspectives. This can be reconciled by considering these roles as representing progressive stages in the development of the real estate unit as put forward by Joroff, et al (1993).

Overall, Gibson found the same general problems occurring in both the public and the private sector with no obvious superiority of either sector in terms of CREAM performance.

However the public sector had additional constraints imposed by the political process and annual budgeting cycle that further militated against the long term strategic planning that, due to the nature of the assets involved, is so important for corporate real estate. In contrast, Gibson found that private sector organizations that had a longer planning horizon for their main business often found it easier to plan for property needs.

Unfortunately, business is becoming more like government, due to more rapidly changing business environments and shorter term planning horizons. Therefore, in the future, long term planning for real estate assets is likely to be further compromised.

In a further paper Gibson (1994) outlines the fundamental requirements for adopting a strategic approach. It is proposed that the property crash and subsequent difficult economic conditions of the late 80s and early 90s forced organizations (including local authorities) to focus on the implications of real estate held for their main area of operations, rather than the potential sale, or redevelopment profits, that were earlier the primary consideration.

This change heightened recognition of the importance of the strategic approach to property, but the business environment in which such a strategy has to be implemented is changing in ways, and at a rate, that make implementation increasingly difficult.
Gibson again put forward the examination of organization’s management processes as being the most practical method of assessing effectiveness, rather than looking at individual professional competencies. As mentioned earlier, this is consistent with the findings of several other authors.

Gibson quotes the public sector work summarized later and her own and others’ work in the private sector (discussed in the previous section), as supporting this approach and providing a consistent picture of process weaknesses across a wide range of organizations. These included reactive management, short-term objectives, conflicting objectives, lack of performance monitoring or incentives, and inadequate information for decision-making.

Gibson believes that these are really symptoms of three more fundamental underlying problems, namely:

1. **The differing perspective** of property between users and property professionals. "Property users see property as a resource but one that is free, inflexible and static. It is a place to work, to teach students, to provide community care, to distribute benefits. They often feel they understand property because they have bought and sold their own homes". “Property managers can be equally blinkered. Property to them is a technical challenge. They focus on the building and not the activity that takes place inside. A property to them is a building that needs to be maintained, a lease which needs to be renewed, accommodation that needs refurbishing, and a tax liability which needs to be minimized" (p11).

2. **The view adopted** - physical, financial or location for an activity to take place - can give rise to different issues and management objectives. These are often in conflict and therefore a balance must be struck, or priorities decided, none of which is ideal from any one perspective. These trade offs must be explicitly stated and the policy decision taken mandated at the highest level in the organization. If not, inefficiency and ineffectiveness will take place as individual divisions devote their attention to fighting to acquire or retain resources rather than attending to their core responsibilities.
3. The long planning horizon for real estate projects conflicts with the short-term focus of many organizations, especially those influenced by the cycles of political elections. This may prevent the best advantage being taken of property market opportunities.

Gibson believes that until organizations specifically address the above three underlying fundamental issues it is unlikely that they will have in place the processes that are necessary to support a truly strategic approach to making real estate decisions.

Gibson puts forward a "strategic framework" in a simple diagram that she believes can be applied to all organizations irrespective of their specific goals, property requirements and methods of working.

**Figure 4.1 A Strategic Framework** (Gibson 1994, p.12)
The Performance of Corporate Real Estate Asset Management in New Zealand

Included are defining strategic property objectives, determining how to achieve those objectives in terms of activities, skills and responsibilities, a monitoring system for both the property and the management, and an information system comprising property, operational and external input in order to have a valid and transparent base for decision-making.

Gibson concludes that if these basic requirements are not in place it will be very difficult for any organization to develop a strategy for its operational property.

French (1994) examined asset registers and asset rents in a local authority context. He highlighted the necessity of not only having suitable individual assets in the first place, but also the importance of having a system to monitor the ongoing performance of the property portfolio as a whole in meeting the organization’s goals. The latter aspect is often the most problematical in a corporate real estate situation as real estate has the tendency to be forgotten once the initial acquisition and commissioning phases have passed.

Referring to the Audit Office (Bourne 1987) report on local authorities (discussed below), French (1994) discussed the management issues involved in addressing the deficiencies in asset registers identified, and required to be addressed by the Local Government and Housing Act 1989.

An asset register was identified as a first requirement both from an operational efficiency and a cost of capital viewpoint. French advocated compatibility between different local authority systems and emphasized the need for more information than previously held. He referred to a CIPFA recommendation that an asset registrar be designated to supervise the register and ensure it was appropriate and accurate.

Separation of property management from the day to day operation of the core business was the second step recommended, either a separate department or a full subsidiary.
The Performance of Corporate Real Estate Asset Management in New Zealand

Real estate valuations were next addressed, and French (1994) highlighted the problems when established protocols, or other factors, led to determining or recording property values on a basis that was meaningless from a performance monitoring viewpoint. He advocated the adoption of a valuation methodology consistent with other organizations with specialized assets, and using the lower of net realizable value or net current replacement cost so that the market situation was reflected in asset rents applied.

The next phase advocated was the introduction of open market rentals between the core group and the property group. Such an arrangement allows the ongoing performance of each operational group to be measured on the same basis. The cost, means and date upon which the property was acquired are no longer relevant. Additionally, the ongoing investment performance of the properties themselves can then be measured.

Unfortunately, in the local authority situation, the process is not as simple in practice as in theory, primarily due to the difficulties in measuring the performance of the core group. Also, a local authority generally has an extremely diverse range of real estate assets upon which these measures should be made.

French (1994) warned against the temptation to use pure financial measures to judge the performance of social assets. This does not mean the asset register and asset rent exercise should not be implemented, but rather put into the context of an overall property strategy. As many of the output measures are qualitative, this will have substantial implications for the design of the asset register itself, which must serve as a comprehensive information system for both property management as well as the core activities and policy objectives of the council as a whole.
4.3 Individual Case Studies

As research into CREAM issues is in an early stage of development, and also because improvements in CREAM performance often seem to depend on implementation of an holistic approach, valuable insight into a wide range of issues can be gained by careful analysis of case studies.

Unfortunately, detailed case studies are seldom publicly available in respect of private organizations, but in the UK there has been a substantive analysis of CREAM in the public sector.

While these case studies may predominantly identify problems and solutions that are particular to the situation under investigation, both Gibson (1991) in the UK, and Simons (1993) in the USA concluded that public sector CREAM practices and issues largely mirror those affecting large organizations in the private sector.

For the above reasons a number of official reports and other case studies on CREAM were examined. A selection of the most relevant are discussed below.

4.3.1. The Review of Local Government - The Effects on the Management of Property Assets

Byrne (1994) highlighted the beneficial effects on property asset management of the major restructuring of local government in England.

As a result of the restructuring there were major transfers of assets between various existing and new local authorities. In order to accomplish this it was necessary for the existing authorities to have an accurate inventory of the property they already held - operational, non-operational and surplus. Some form of value was also needed for many parcels. For many local authorities this may have been the first time such information was gathered and highlighted the relative importance of property assets.
This also was the case in New Zealand where it was found a particular local authority “thought” they had about 400 properties when in fact they had 619 (McDonagh 1992).

In other cases the information was there, but in incompatible forms held by diverse agencies and often compiled for central government treasury use rather than in a format useful for strategic property management.

Byrne (1994) stressed that, in either case, compilation of an asset register is only a single step towards both the operational and strategic management of property, but in the process property will be emphasized to such an extent that it will make the preparation of a management strategy much more likely.

The new local authorities, or those with revised boundaries, also had to carefully consider the property assets they required for effective and efficient future core operations. Due to other contemporaneous changes, such as compulsory competitive tendering of some traditional activities, property requirements in the future were likely to be quite different from those in the past. A one-time opportunity existed to transfer surplus, or unsuitable, properties to a residual body at no cost.

A further complication was that the new local authorities had to prepare for compulsory competitive tendering of some of their own property management services. While this again forced a more strategic view to be adopted, going through the process at a time when the property management function was particularly busy with the other activities outlined above was not ideal.

In essence, the local authorities were forced to develop a strategic real estate plan and gather the informational requirements to support it by the restructuring process itself.

It would be interesting to know what percentage of the benefits of restructuring could be attributed to this aspect alone. This could have been implemented in isolation from the rest of the process. Byrne (1994) stated that this aspect was obviously one
of the objectives of the government as indicated by papers relating to the restructuring process.

Byrne (1994) warned of the potential for the strategic property management function to be outsourced if the internal local authority staff failed to perform in this (new for many) role. While for some low risk services this may be attractive from a cost point of view, according to Byrne "there is a major question as to whether the long term management of the property asset should be dealt with in the same way" (p.7).

Byrne (1994) believed it was crucial that a cadre of effective professional staff be retained within organizations that were familiar with the core business needs. They should be "proactive commissioners and controllers of contracted-out activities within the estate system. The ability to deliver a quality product will need professional interpreters of the council’s strategic thinking and will again require an effective buffer between the members and the external contractor where one exists" (p.8).

He also advocated the education of the elected members on the importance of property to local authorities in the anticipation that this would lead to active consideration of property issues at the highest level, i.e. "bring property into the corporate process" (p.8), a necessary prerequisite to a strategic approach.

4.3.2 The Property Management Practices of Local Authorities

In 1987 the Audit Commission (UK) carried out a study of the property management practices of local authorities. The Royal Institution of Chartered Surveyors formed a working party to present evidence to this commission (RICS 1987) and amongst its reported findings and recommendations were the following.

1. It would be impossible to develop a single model for the management of real estate assets for all local authorities as their needs, goals and objectives vary so much. However, there are some fundamental guiding principles that should be
adopted such as a "corporate" approach, and this is the generalized model that is recommended.

2. Property management should be under a specialist property manager and department, reporting to a single high level committee responsible for property management.

3. A landlord/tenant relationship should exist between the property department and other departments.

4. A central comprehensive, property database utilizing standardized definitions and methods of measurement is essential. A split between operational property and non-operational property is desirable.

5. Performance indicators, coded expenditure, continuous review and notional rents, or other incentives to release excess space are all useful tools in facilitating efficient and effective use of real estate assets.

6. A bid to retain surplus real estate or transfer it between departments should be treated as if it were a bid for the equivalent cash resources.

7. Property investment or disposal decisions should only be made within explicit statements of financial and social policy. While acquisition and disposal decisions should reflect political or operational priorities the property manager, not operational departments, should then carry them out.

8. Staffing levels should reflect the over 100 billion pound value of local authority real estate assets in the UK. But the value of employment of specialized consultants should also be considered.

9. The percentage of maintenance expenditure incurred on an unplanned or day to day basis versus the percentage incurred in planned maintenance programmes is an indicator of how well this aspect of property management is being carried out.
Similarly the existence of any maintenance backlog is an indicator of poor management.

These recommendations reflect the RICS committee opinion of fundamental principles and practices that should be adhered to in a local authority corporate real estate situation. They touch on many of the factors discussed by Veale (1989), Pittman and Parker (1989), Avis Gibson and Watts (1989), Gibson (1991 1994 1995) Joroff, Louargand, Lambert and Becker (1993) and other authors and therefore can be seen as reinforcing the notion that presence of these factors is an indicator of high CREAM performance.

4.3.3 Estate Management in the (UK) National Health Service (NHS)

The UK National Audit Office (Bourne 1988) report sought to determine if:

(a) a reliable property database had been set up,
(b) estate requirements had been determined and surplus property identified,
(c) strategies had been developed to bring the retained properties to an adequate level and maintain them at that level.

The level referred to in the last statement was a level that at least complied with minimum statutory requirements, not a level that most efficiently and effectively contributed to organizational goals.

It is plain that an adequate level of performance on all these issues would be necessary to achieve above stage 1 on the Corporate Real Estate 2000 evolutionary scale referred to in chapter 3. 8.

Among numerous findings it concluded that the thirteen billion pounds worth of NHS real estate assets were still seriously under-managed and progress on improvement was slow. Without further progress in improving access to information, decisions were being made "in the absence of a reliable database and outside the
strategic planning process" (p.4). Therefore there was a danger that wrong decisions were being made.

There was potential for 300-500 million pounds per annum savings from making better use of real estate assets in addition to the benefits of capital receipts from properties disposed of. In the 20% of NHS districts that had collected reasonably complete data, 40% of current land holdings were surplus. The one authority that had made substantial progress with their database had also made substantial capital and revenue savings.

In spite of a required focus on the issue, the backlog maintenance had not been monitored and the DHSS did not know if the position had improved since it was last assessed in 1982.

NHS regional plans did not indicate consideration of real estate issues and shortcomings in estate management expertise were not being adequately addressed.

In conclusion, a renewed emphasis was called for on addressing the major and fundamental problems of:

- a reliable database,
- operational requirements determined and surplus property identified,
- strategies developed to bring and maintain retained properties to an adequate level.

The comment was also made "...a more positive recognition of the estate as a resource is essential to this process" (p.5) which indicates some of the attitudinal problems Veale (1989) found common in the USA private sector were also prevalent in the UK public sector.
4.3.4 Property Services Agency (UK)

A similar report was carried out by the National Audit office in respect of the Property Services Agency (PSA) in May 1988 (Bourne 1988). The Property Services Agency was the government department assigned to carry out property management functions for many central government functions.

In some instances the PSA essentially held title to the properties whereas in others, for example defence lands, it provided a property management service to the holding department. In general, user departments were responsible for formulating their accommodation requirements in terms of choice of general location, amount of space to be occupied and any special needs. The PSA were then responsible for meeting these requirements.

At the time of the report the civil estate amounted to 11.3 million square metres of accommodation in 8000 properties and 13,850 departmental occupations split up as follows.

<table>
<thead>
<tr>
<th>Type</th>
<th>Square Meters</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Office</td>
<td>7.2 million</td>
<td>64%</td>
</tr>
<tr>
<td>Storage</td>
<td>1.8</td>
<td>16%</td>
</tr>
<tr>
<td>Specialized</td>
<td>2.3</td>
<td>20%</td>
</tr>
</tbody>
</table>

54% was freehold and 46% leased.

The findings of the Audit office included:

Although there was a scheme in place to charge most occupants the full cost of their accommodation this was not fully effective and "the information provided to departments did not make them bear the full costs of all their decisions" (p.2).
In order to progress further on the above issue the introduction of commercial accounts and a trading fund was being considered, but this would require upgrading of their information systems as a prerequisite. This was unlikely to be achieved before the early 1990's.

The PSA had investigated the own versus lease decision and concluded ownership was the far better option in terms of cost. They therefore had a clear strategy in place in respect of acquiring new freehold properties and non-renewal of leases where possible.

On the other hand, departments, who since 1983 had been instructed by Treasury to carry out "investment appraisals" to ensure that all relevant aspects of accommodation requirements were considered by departments and the PSA, often forgot this requirement (16 out of 35 test cases), or completed them to a poor standard.

There were examples of buildings under PSA management being left empty for long periods of time while at the same time the PSA being unable to meet departmental requirements in a timely manner. Rent reviews negotiated were generally found to be favourable to the departments concerned.

Disposal of surplus properties was generally satisfactory, though sometimes long delays ensued - often related to obtaining planning permission.

A major concern of the PSA was the mounting backlog of maintenance and the deteriorating condition of their owned and leased buildings. Extra funding was sought for this, and departments encouraged to allocate more funding for the work for which they were responsible. Even so, priority 1 (unavoidable) and 2 (essential) work was remaining undone and the quantity mounting. As many leased buildings required full maintenance by the tenants (PSA), this made lease negotiations with building owners difficult.
The Performance of Corporate Real Estate Asset Management in New Zealand

Although there was a programme aimed at rationalising the estate, this was only achieving half the results initially expected. Impediments were availability of funding to implement the rationalisation, and the unwillingness of departments to move when the PSA could not offer them any incentives for doing so.

The PSA outsourced most construction, design and maintenance work, as well as using consultants extensively in disposal programmes. They were also exploring further outsourcing opportunities.

In conclusion, the PSA was perceived to be making progress and securing economies for the departments and government as a whole - primarily through disposing of vacant space. It was constrained in further progress by departments failing to analyze their own space requirements adequately and lack of funding and incentives to fully pursue rationalization opportunities. The poor state of maintenance also limited options in some cases.

Some clarity of the future role of the PSA was also called for, i.e. was it to become a pro-active manager of the civil estate, or were individual departments to assume more responsibility for their accommodation decisions. In such a scenario the PSA would become more of an agent acting on the client’s instructions and available for consultation. In either case it was considered some central coordinating and monitoring function should be provided for.

In terms of Joroff, et al’s (1993) stages of development, the PSA can be seen to be significantly ahead of the NHS in that at least it had identified many of the problems to be addressed. It had some maintenance and allocation problems at the stage 1 level but generally it was operating at the stage 2 "controller” and stage 3 "dealmaker" level, with varying degrees of success.

Progress to the stage 4 "intrapreneur", or stage 5 "business strategist", levels appeared impossible without greater clarification of the role of the PSA in the overall operation of government departments.
While the PSA itself may have been making progress, at the time of the report, departments themselves were supposedly responsible for their own real estate strategy but were plainly not doing an adequate job in this regard.

4.3.5 Control and Management of the Metropolitan Police Estate

A further report was published by the National Audit Office, the focus of attention being "Control and Management of the Metropolitan Police Estate" (Bourne 1989).

The estate comprised 1.14 million square metres of floor area in greater London and was valued at around one billion pounds. Three principal types of property were involved; operational, residential and headquarters training and support.

Three specific issues were to be investigated:

- whether the size, condition and utilization of the estate met the Metropolitan Police's needs,
- whether the planning financial control and funding arrangements for the estate enabled it to be managed economically, efficiently and effectively,
- whether an adequate strategy for the future development of the estate has been put in place.

On the first issue it was found the police had a large number of vacant sites, but only in recent times had a strategy been developed for disposal or development. Also, the need for provision of residential accommodation had reduced significantly in recent times, but there was still scope for further reductions.

Operational space allocation was 23% above minimum physical space requirements and 3% of space was totally vacant, but the nature of existing buildings made it difficult to improve on these figures.
Much of this difficulty related to the age and poor condition of many police stations which, as well as increasing maintenance cost, adversely affected operational efficiency and effectiveness, recruitment, morale and public image.

Despite the poor condition, maintenance budgets were under-spent due to lack of staff to arrange, manage and supervise the work required. Questions were also raised over the redecoration of residential accommodation at police expense when it appeared to be the occupant’s responsibility. The residential estate also had vacancies as high as 10% at times.

In terms of planning, funding and financial control, there had been little liaison between management functions until the mid 1980s and since then the limited information held on the estate and its un-coordinated dissemination precluded development of a fully effective management strategy.

In fact broad strategies and specific objectives for the estate were first stated explicitly only in 1988 when they focused on improving operational properties using redirected existing funding. In essence they sought to halt or reverse declining standards with two new police stations targeted each year on a “worst first” basis.

In addition, the above strategy, and the strategy to reduce residential spending were, quoting the report: "...not based on any detailed estimates of future demand, coupled with a rigorous review of the options, costs and benefits" (p.3). Similarly decisions were made to enter into leasing arrangements without formal investment appraisal as required by Treasury (see above section on the PSA for more detail).

Neither of the above comply with accepted definitions of strategic planning, such as that introduced earlier in the definitions section of this thesis.

Shortages of professional property staff, largely due to inability to match pay rates in the private sector, were attested to be behind many of the problems identified. Outsourcing of some essential work was recommended because of these recruiting difficulties.
Regarding future strategic planning, a prerequisite was more accurate information on the whole of the police estate including realistic estimates of maintenance arrears and current valuations to allow the effectiveness of decisions to be assessed. "A full property database should be developed urgently which would help bring about a more cohesive system of financial planning" (p.5).

A more entrepreneurial approach to financing capital needs was also recommended, such as using capital from the sale of surplus property and joint ventures with the private sector for the redevelopment of valuable sites that could include new operational facilities.

The overall conclusion was that until very recently there had been little long term planning and no stated aims and objectives for the whole police estate or its component parts. Changes in operational strategies had created a surplus of real estate in some areas but lack of adequate information systems, staff and a coordinated real estate strategy hampered attempts to capitalize on this opportunity.

Another contributing factor was the lack of clarity as to whose responsibility it was for developing such a strategy and integrating it with the metropolitan police operational strategy.

In terms of corporate real estate stage of development, the Metropolitan Police could be seen to be only slightly ahead of the NHS. They were only marginally supplying needed operational capacity and had yet to gather the information or expertise to operate at stages 2 and 3.

Although they may have had a formally recorded real estate strategy, it did not comply with recognized definitions of strategic planning and would therefore have no firm foundation until the basic data and expertise implicit in the lower stages were in place.
4.3.6 The Higher Education Funding Council for England

The Higher Education Funding Council for England (HCFE) in its report "Strategic Estate Management" of January 1993 effectively forced organizations seeking funding (essentially universities) to move to the highest stage of evolution in terms of Joroff et al (1993) model. This was by requiring submission of a detailed estate (asset) strategy as a prerequisite for any capital funding or borrowing application.

"...in order to achieve the institution's objectives, all the resources of that institution are being managed as effectively as possible...need for more positive and active management of land and buildings..." (p.3).

It was emphasized that the document was not to be an end in itself, or merely support an application for funds, but rather a strategic document for use by the management of the institution. The strategy should help form a coherent and comprehensive picture of the institution as a whole, take a longer term view, be robust enough to adapt to changing circumstances and be subject to re-evaluation and amendment as necessary.

Suggested headings included:

- Objectives and scope
- Data on the existing estate
- Performance assessment
- Problems
- Opportunities
- Evaluation of options
- Proposals
- Financing
The Performance of Corporate Real Estate Asset Management in New Zealand

The HCFE report also provided a clear distinction between estate (or asset) management and facilities management that is consistent with the author’s definitions outlined earlier. It also recommended that an individual, or committee only one level removed from the Vice Chancellor, be made responsible for strategy development and that the engagement of outside consultants or internal retraining may be necessary. It also warned about reliance on outside consultants.

The driving force behind this new requirement for a strategic estate management plan was the findings of the report "Capital Funding and Estate Management in Higher Education" (June 1992) that stated: "(institutions) in many cases limit their consideration of estate matters to a list of projects they wish to pursue" (p.2).

Subsequently a number of seminars were organized by the Higher Education Funding Council and international property consultants, Erdman Lewis, prepared a number of briefing papers including:

- The Transformation of Higher Education: Towards a Strategy for Property (July 1993),

- Acquiring Additional Accommodation (April 1994),

- Estate Strategy: The Virtuous Circle (July 1994).

These briefing papers were all designed to assist institutions in complying with the Higher Education Funding Council’s requirement to put in place an estate strategy by 31 December 1994.
4.4 Conclusion to Case Study Analysis

Almost universally the main issues identified in research into the private sector and detailed in chapter 3, also apply to the public sector.

These include:

- the unrecognized importance of CREAM,
- ambivalent attitudes of operational management,
- organizational structure deficiencies,
- a reactive management process,
- communication problems,
- poor information systems,

In some cases the weighting may be different and the public sector has the additional constraints of public disclosure and scrutiny, political sensitivities and legal constraints to contend with, but in general terms the same issues and models are applicable.

These findings lend further weight to the adoption of the factors/dimensions of performance identified by Veale (1989), and Pittman and Parker (1989), as appropriate measures of CREAM performance for both public and private sector organizations.

Perusing the case study reports in date sequence makes it apparent that there has been an increasing focus on strategic CREAM in the public sector in the United Kingdom. This indicates an acceptance of the importance of real estate being included in the overall strategic planning of an organization at the highest level.

However, there appears to have been a very rapid leap from the first stage of Joroff, et al’s (1993) evolutionary model, where basic information systems are the focus, to
the highest level - strategic integration - without obvious consideration of the intermediate stages.

It might be questioned whether corporate real estate units in the organizational structure that only a few years earlier had almost no information on the assets under their control, could now make a meaningful contribution to the strategic planning process. This is particularly the case after such a short period in which to put in place the systems to deal with the intermediate stages of the five step stage of development model, as well as change ingrained management attitudes built up over many years.

Is it that Treasury and the National Audit Office are requiring a strategic orientation of departments and therefore they are forced to "talk the talk" even if they cannot yet "walk the walk"? This may well be counter productive, as although a strategic orientation is what corporate real estate units should be striving for, if they are forced to operate at this level without the appropriate backup, they may become discredited in the eyes of operational groups. The latter often already have a biased view of the competence of real estate personnel becoming involved in overall organizational strategic planning as well as their own reasons to resist such developments.

Part of this research will be to determine if CREAM performance and stage of development, in terms of the Joroff, Louargand, Lambert and Becker (1993) model, are related. If so, it may be possible to identify if organizations that display the "appearance" of a high stage of development via a strategic orientation (such as some of those discussed above) also exhibit the characteristics of high performance CREAM. If not it would call into question the assessment of their stage of development and also the validity of corporate real estate strategies put forward.
Chapter 5

RESEARCH METHODOLOGY

5.1 Introduction

This chapter contains an outline of the methods used to collect data on CREAM in New Zealand and the techniques subsequently applied to analyse the data collected.

Researchers can choose from a variety of research methodologies but some research strategies are better at solving particular research problems than others. A useful division can be drawn between quantitative and qualitative techniques. Quantitative instruments include surveys, where questions such as "who, what and where" can be adequately answered using closed end or scaled questions. In addition significant relationships between answers given may be able to be established using statistical techniques. In contrast, qualitative questions such as "how and why" are often best addressed using qualitative techniques, such as open-ended questions in unstructured or semi-structured face-to-face interviews and case studies.

In this research both techniques were used. The results of qualitative interviews with 47 corporate real estate executives carried out earlier by the author (McDonagh 1999) were combined with the literature review and review of case studies (presented in chapters 3 and 4) in order to establish the issues and frame survey questions. These were subsequently included in a survey questionnaire administered by mail and quantitatively analysed.

A mail survey delivered to as wide a range of organizations as possible was chosen as the primary instrument of research as it was felt that only with a wide sample and anonymous results would the true state of corporate asset real estate management in New Zealand be fully explored. In contrast face-to-face interviews may have produced biased results, as interviewees may not want to reveal shortcomings, particularly within the competitive environment in which they operate.
Veale (1988 1989), Avis Gibson and Watts (1989), Teoh (1992), and other authors have focused on large business organizations whereas much of New Zealand's corporate real estate assets are under the control of middle-sized businesses and non-business organizations, such as local authorities, government, and ad hoc bodies. It was felt a mail survey was the technique most likely to provide ready access to these organizations. An additional benefit of the mail survey was that it was relatively low in cost and geographically flexible and therefore able to access a wide range of organizations contemporaneously thus reducing any time shift problems that may have applied to an interview process.

Mail questionnaires also have the benefit of lack of interviewer bias and variability, and, compared with telephone surveys, they permit leisurely and thoughtful replies. This was particularly important in this case, as the questionnaire was relatively lengthy and some of the information may need to have been researched.

Section 5.2 Questionnaire Design

5.2.1 Questionnaire Layout

A copy of the questionnaire is in Appendix A. It is divided into seven sections and the numbers within each section are indexed back to the subject of that section as show below.

<table>
<thead>
<tr>
<th>Topic</th>
<th>Question Numbers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Overall Organization</td>
<td>questions numbered 01 to 06</td>
</tr>
<tr>
<td>Management of Real Estate Assets</td>
<td>questions numbered M1 to M8</td>
</tr>
<tr>
<td>Individual Responsibilities</td>
<td>questions numbered R1 to R7</td>
</tr>
<tr>
<td>Communication</td>
<td>questions numbered C1 to C3</td>
</tr>
<tr>
<td>Information Systems</td>
<td>questions numbered I1 to I2</td>
</tr>
<tr>
<td>Outsourcing</td>
<td>questions numbered S1 to S11</td>
</tr>
<tr>
<td>Real Estate Portfolio description</td>
<td>questions numbered P1 to P6</td>
</tr>
</tbody>
</table>
Many of the questions had sub-questions requiring closed end responses utilizing a five point Likert scale. Although not printed on the survey form, the sub-questions are annotated in Appendix A as O1a, O1b, O1c, etc. for ease of reference. Other questions required the respondent to make a choice that most closely reflected their own situation or opinion from a selection of answers provided.

There were only a small number of open-ended questions: with more it was anticipated the current lack of understanding of CREAM concepts and terminology, possible response bias and the additional effort involved in completing an already lengthy survey would result in a low response rate. Also, the wide range of possible answers and the size of the survey sample would create coding, editing and statistical analysis problems limiting the ability to draw relevant conclusions. The research questionnaire went through six versions before the final wording and layout, the interim versions were tested on a number of corporate real estate executives and academics.

5.2.2 Descriptive and Comparative Questions

These questions were designed to provide answers to Research Questions 1 and 2. Some characterised the organization being surveyed, for example, question O1 identified the ownership structure and question O2 categorised the core business of the organization. Others such as P1 to P6 characterised the organization's real estate portfolio. Some questions were based upon Teoh's (1992) work to allow a direct comparison of progress in the application of corporate real estate asset management in New Zealand. Further questions were derived from those contained in the survey of corporate real estate practices carried out by the University of Reading.

5.2.3 CREAM Performance Questions

The performance measurement approach adopted was a development of the inputs and process approaches of Veale (1989) and Pittman and Parker (1989). Specifically, respondents self rated their organization on the "factors" or "dimensions of performance" as identified by Veale (1989) and Pittman and Parker (1989) via their answers to the following questions spread throughout the questionnaire.
### The Performance of Corporate Real Estate Asset Management in New Zealand

<table>
<thead>
<tr>
<th>Question Number</th>
<th>“Dimension of performance” or “Performance factor”</th>
</tr>
</thead>
<tbody>
<tr>
<td>M1</td>
<td>Existence of a separate corporate real estate unit</td>
</tr>
<tr>
<td>R5h</td>
<td>Cash flow contribution by the corporate real estate unit</td>
</tr>
<tr>
<td>C1, C2</td>
<td>Reporting level/frequency</td>
</tr>
<tr>
<td>C3a, M8j</td>
<td>Strategic planning for corporate real estate</td>
</tr>
<tr>
<td>M8a, M8b, M8c</td>
<td>Attitudes towards and processes for managing CRE</td>
</tr>
<tr>
<td>I1b, I2a to I2k</td>
<td>Management information systems for corporate real estate</td>
</tr>
<tr>
<td>M8k, R5l, M6a to M6g</td>
<td>Information and techniques used for CRE decision making</td>
</tr>
</tbody>
</table>

Most required responses using a five point Likert scale.

#### 5.2.4 Life Cycle and Stage of Development Questions

In question 05 the respondents had to tick a statement most closely representing their organization and were given five options depicting differing levels of organizational flexibility and intensity of business competition. The objective was to determine the stage in the corporate life cycle as identified in the general business literature.

Similarly question 06 asked respondents to identify how costs of occupying real estate were dealt with in their organization from a list of possibilities. The objective here was to determine the stage of development in accordance with the work of Joroff, et al (1993).

Other questions designed to indicate corporate real estate stage of development included the following:

- **M5** *Corporate Real Estate Space supply process*
- **M7** *Role of CREAM in the organization*
- **M8d** *Existence of standardized rules for corporate real estate*
- **M8f** *Teams, alliances and joint ventures formed*
- **M8h** *Risk reduced via CREAM*
- **R5a** *Impact of a corporate real estate project on the balance sheet*
- **R5d** *Cost of accommodation per occupier*
- **R5e** *Benchmarking against industry standards*
- **R5g** *Using corporate real estate for strategic advantage*
The Performance of Corporate Real Estate Asset Management in New Zealand

The above questions were anticipated to provide insight into Research Question 4.

The balance of the questions in the survey related to a wide range of factors including whether the organization had been significantly restructured or re-engineered in recent times, the number of employees, responsibilities and experience of the respondent, management information systems and degree of outsourcing.

The intention of these questions was to address Research Question 5.

Details on the individual questions and the survey responses are included in chapter 6 and the correlation with CREAM performance is examined in chapter 7.

5.3 Survey Distribution

Most organizations in New Zealand are small by world standards so the criteria for inclusion in the survey were wide, being any organization with multiple sites or a single site with multiple buildings (for example an airport company or hospital complex).

Complete official listings of government departments, state owned enterprises (SOEs), energy companies and territorial local authorities were available, so for these categories the entire population was surveyed. All the non-investment companies listed on the New Zealand stock exchange were also included, as were the privately owned non-investment companies identified in the government publication “New Zealand’s top 200 companies”. Finally, all churches and registered charities with substantial real estate assets were identified and included.

The final mailing list had 457 entries and relative to the number of major property-owning organisations in New Zealand was assessed as being very representative.

In November 1998 the survey was mailed along with the covering letter and instruction sheet included as Appendix B.
All surveys were addressed to the Property Asset Manager, but it was explained that they should be completed by the person within the organization who had primary responsibility for the purchase, leasing, management and disposal of real estate assets used in the core business of the organization, irrespective of their title. Definitions of operational unit, core business, and outsourcing were included for clarification and respondents were invited to skip questions they did not have the data to answer or were unhappy about answering.

As an incentive to respond by the due date respondents were offered the opportunity to enter a draw for one of three cases of premium quality wine. In order to award this prize and to follow up non-respondents, reply envelopes were coded, but in all other respects responses were completely anonymous.

The initial response rate was approximately 37% and non-respondents were followed up by telephone two weeks after the return due date of Monday, 7 December 1998. This resulted in a final response rate of 193 questionnaires, or 42% of the survey sample, which is high compared to similar studies by Veale (1989) with 15%, Avis Gibson and Watts (1989) with 29% and Pittman and Parker (1989) with 24%.

In addition non-respondents were profiled and were generally representative of the sample except for a lower response rate from private companies. Organizational category response rates were as follows; government departments and state owned enterprises 60%, territorial local authorities 61%, public companies 53%, private companies 22.5%, non-profit organizations 38%.

5.4 Data Analysis

5.4.1 Data entry
The raw data from the questionnaires returned was initially checked, coded and entered into an Excel spreadsheet. Data from this spreadsheet was then transferred to the SPSS for Windows version 9 software package for statistical analysis.
5.4.2 Descriptive Analysis –

Research Question 1 - What is the Current State of Corporate Real Estate Asset Management in New Zealand?

Research Question 2 - Have Significant Changes Taken Place in the Management of Corporate Real Estate Assets in New Zealand Since 1992?

This part of the analysis was designed to answer Research Questions 1 and 2 above and involved the production of histograms for the responses to each question along with associated descriptive statistics where appropriate. In some cases the answers to sub-questions were combined into stacked bar charts to facilitate comparison and reduce the overall number of charts.

These results are included along with a brief commentary and descriptive comparison with the earlier results of Teoh (1992) in chapter 6.

5.4.3 Correlational Analysis

Research Questions 3, 4 and 5 required a three-stage “building block” approach where the results of Research Question 3 were used as an input to the analysis of Research Questions 4 and 5 and their associated hypotheses.

Research Question 3 - Can a Simple Model of Corporate Real Estate Asset Management Performance be Developed?

This process also required three steps, which reflected hypotheses (i), (ii) and (iii) Namely:
The Performance of Corporate Real Estate Asset Management in New Zealand

(i) – Checking for consistency of response and identifying performance variables to include in the CREAM performance model

(ii) – Checking correlations between performance variables within organizations

(iii) – Applying factor analysis to identified CREAM performance variables

(i) As no single characteristic of an organization defines its CREAM performance, the mail survey asked respondents a number of questions in order to build up a picture of CREAM Performance in their organization. This was based on the "dimensions/factors of performance" identified by Veale (1989) and Pittman and Parker (1989) as discussed in chapter 3. For example, questions M1, M6, M8a, M8b, M8c, M8e, M8j, M8k, M8l, R5h, R5l, C1, C2, C3, and I1 and I2, all addressed such issues.

The answers to some of these survey questions relied on the respondent’s qualitative assessment of their organization’s situation, and were therefore likely to be more variable within an individual organization than those able to be quantitatively determined. As a crosscheck, the relevant topics were often examined by several questions distributed throughout the survey and asked from a variety of perspectives. Statistical analyses amongst these questions to test for consistency was subsequently carried out using statistical tests appropriate for the characteristics of the variables as follows:

- For combinations of two binary variables – Chi squared
- For combinations of binary with ordinal variables – Mann Whitney U – Wilcoxon Rank Sum W
- For combinations of two ordinal variables – Spearman Correlation Co-efficients
Non-parametric tests were generally necessary as the survey utilized nominally scaled categories for some organizational characteristics and most other questions used a Likert scale for rating responses, providing only ordinal data.

The results of these analyses (discussed in chapter 7.2.1) and of earlier research (reviewed in chapter 3) were used to choose the most appropriate variables (i.e. survey questions) to include in the model of CREAM performance.

These performance variables were then input to (i) and (ii) below:

(ii)

Previous research (Veale 1989) has proposed that the various factors/dimensions of performance referred to earlier are usually strongly correlated within individual organizations. Therefore, the next step in this research was to test for this relationship amongst respondent organizations in the New Zealand CREAM survey.

The survey questions chosen to represent the various factors/dimensions of performance as result of (i) were tested for correlations as follows:

- For combinations of binary with ordinal variables – Mann Whitney U – Wilcoxon Rank Sum W
- For combinations of two ordinal variables – Spearman Correlation Co-efficients.

Again non-parametric tests were necessary as the questions identified in (i) utilised either binary responses or a Likert scale rating to identify the factors/dimensions of performance.

The results of this process are discussed in chapter 7.2.2
This was the final step in which principal components analysis was applied in an attempt to distill the previously identified multiple variables representing "factors" and "dimensions of performance" down to a single composite relative performance measure for CREAM. This new measure of CREAM performance would then be used as the independent variable in further tests aimed at identifying relationships between CREAM performance and other organizational characteristics.

The results of this step are discussed in detail in chapter 7.2.3.

Research Question 4 - Is There a Relationship between Corporate Real Estate Asset Management Performance and "Corporate Real Estate Stage of Development" as Defined by Previous Researchers?

Research question 4 came from the literature review and relates to whether the concept of corporate real estate stage of development, as put forward by Joroff, Louargand, Lambert and Becker (1993) is essentially an alternative measure of CREAM "Performance". Another possibility is that a certain stage of development is a prerequisite for a certain level of CREAM "performance" or that they are related in some other more complex manner. Finally, there is the possibility that there is no relationship between CREAM performance and stage of development.

If either of the first two propositions was true then a high correlation between responses to the questions addressing corporate real estate stage of development and level of CREAM "Performance" would be expected. In contrast, if no correlation was evident it would support the third proposition.

The CREAM performance model arrived as a result of Research Question 3 above was therefore used to assess the relationship (if any) between CREAM performance and organizational "stage of development".

Again, the stage of development of the respondent organizations was determined by their responses to a number of relevant survey questions derived from the literature.
These were questions 06, M5, M7, M8d, M8f, M8h, R5a, R5b, R5c, R5d, R5e and R5g. As above correlational checks on respondent consistency of response were carried out.

The tests used were as follows:
- For combinations of two binary variables – Chi squared
- For combinations of binary with ordinal variables – Mann Whitney U – Wilcoxon Rank Sum W
- For combinations of two ordinal variables – Spearman Correlation Co-efficient.

Non-parametric tests were again necessary as the relevant questions utilized nominally scaled categories for some organizational characteristics and most other questions used a Likert scale for rating responses, providing only ordinal data.

**Research Question 5 - Are Particular Organizational Factors Associated with High Performance CREAM?**

Finally, the newly derived overall CREAM performance model was used again to test for statistically significant organizational factors that could explain different levels of CREAM performance.

For the majority of combinations Spearman correlation coefficients were calculated, but for questions 01 - Organization ownership structure, 02 - Organization core business and P6 - CRE valuation method used, one way analysis of variance was used. For Questions; M1 - Existence of CRE unit, C3a - Written strategic CRE plan exists, S1 - Outsourcing strategy exists and S4 - Long term outsourcing contracts exist, t tests for independent samples were used. Pearson correlation coefficients were used for questions M2 - Number of CRE staff, R2 - Tenure in position and P4 - Annual lease rental costs.

The results are detailed in section 7.4.
Chapter 6

DESCRIPTIVE ANALYSIS OF SURVEY RESULTS

6.1 Introduction

In this chapter the descriptive results of the mail survey are presented in a series of graphs, associated descriptive statistics and a brief commentary. The order of presentation follows that of the questions in the questionnaire form. Comparisons are also drawn with the only similar research carried out in New Zealand, being that of Teoh (1992).

Some respondents did not answer all questions or sub questions in the survey, the range being from 109 valid responses (56.5%) for question P4 - Organizations approximate annual rental costs, to 193 valid responses (100%) for questions; O1 - Organization ownership structure, O2 – Organization core business and R2 – Tenure in current position. Over 82% of questions had a valid response rate of 85% or better.
6.2 Overall Organization

6.2.1 Question O1 – Ownership Structure

This question asked respondents to choose among six alternative ownership structures to describe their organization.

![Fig. 6.1 Question O1 Ownership Structure]

The distribution of ownership structures amongst respondents was reasonably even and generally reflected the authors' assessment of ownership category for the total sample except for a lower representation of private companies. The latter may have been due to a number of private companies being wholly owned subsidiaries of listed companies with their CREAM carried out by the parent body. There may also have been a lack of interest in the surveyed issues by smaller companies with relatively minor property portfolios. The high response rate from government bodies and territorial local authorities is likely to be the result of criticism in the New Zealand media of poor response rate to an earlier survey.
6.2.2 Question O2 – Core Business

This question was open-ended and asked for a description of the core business of the organization. The results were then individually allocated to one of 13 categories based on the New Zealand Standard Industrial Classification primary codes.

Fig. 6.2 Question O2
Organisation Core Business

Again it can be seen the distribution of responses was relatively even except for the over representation of TLA’s in particular. Details of the respondents in each category are shown below in Table 6.1.
The Performance of Corporate Real Estate Asset Management in New Zealand

Table 6.1 Details on Respondents within Each Category

<table>
<thead>
<tr>
<th>Core Business</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Primary Industry</td>
<td>10 respondents including several research organizations, wholesale and export marketing organizations and stock and station agents.</td>
</tr>
<tr>
<td>Manufacturing</td>
<td>12 relatively large respondents including several international electronics firms, food manufacturers, and multi-product conglomerates.</td>
</tr>
<tr>
<td>Energy</td>
<td>16 respondents, predominantly electricity retailers of various sizes, but also electricity generators and distributors, oil, coal and gas companies.</td>
</tr>
<tr>
<td>Wholesale</td>
<td>6 organizations representing the health care, building supplies, agricultural, food and photographic wholesale sectors.</td>
</tr>
<tr>
<td>Retail</td>
<td>8 large organizations including discount and department stores, specialist consumer retail chains, office equipment supplies and the motor trade.</td>
</tr>
<tr>
<td>Transport</td>
<td>13 respondents including a number of port and airport companies, regulatory agencies, airlines and road transport organizations.</td>
</tr>
<tr>
<td>Communications</td>
<td>5 organizations responded; one radio based, the others all phone companies.</td>
</tr>
<tr>
<td>Finance</td>
<td>15 respondents dominated by banks and insurance companies but also including large legal, accounting and stock-broking firms.</td>
</tr>
<tr>
<td>Government</td>
<td>25 government departments ranging from small advisory bodies to the largest departments.</td>
</tr>
<tr>
<td>Local Government</td>
<td>52 TLA's responded representing the full range from small rural communities to all the major cities.</td>
</tr>
<tr>
<td>Education</td>
<td>10 educational organizations responded, predominantly universities and polytechnics plus a few regulatory bodies.</td>
</tr>
<tr>
<td>Health</td>
<td>13 respondents, predominantly public hospital operators but with a few private hospitals and health research organizations.</td>
</tr>
<tr>
<td>Non profit</td>
<td>7 respondents dominated by religious bodies but with two organizations catering for the disabled.</td>
</tr>
</tbody>
</table>

6.2.3 Question Q3 – Employee Numbers

The next question involved selecting one of seven categories representing the total number of employees within the respondent organization. The results are shown in Figure 6.3. Most of the organizations responding were large in terms of typical New Zealand businesses with over 50% having more than 200 employees and 32% more than 500. The median response was category 6 representing organizations with 201-500 employees.
6.2.4 Question O4 – Organizational Restructuring

Restructuring was defined earlier as “complete and major change in total organizational structure and/or legal status, and/or core business objectives”. The vast majority of organizations had undergone some form of restructuring (92%) but it became apparent in the analysis that leaving respondents to draw their own distinction between the categories minor and extensive restructuring presented problems.
6.2.5 Question O5 – Organizational Life Cycle Stage

Joroff, et al (1993) identified the “life cycle” stage of an organization as being a potentially significant factor in Corporate Real Estate performance. Question O5 identified where an organization stood between a startup phase characterized by uncertainty, flexibility and growth, and a mature stage characterized by mature markets, competition, stability and efficiency. There was also a category to recognize the non-competitive market situation applying to some organizations in the sample. See Appendix A for question details. Figure 6.5 shows the results.

![Fig. 6.5 Question O5 Life Cycle Stage](image)

A relatively small number of organizations were at the startup phase, as may be expected with most organizations being relatively large, as revealed by question O3. Again some respondents may have had difficulty distinguishing between the various levels, but it is clear that most organizations are operating in relatively mature markets, or not in a competitive market situation at all, for example government departments and TLA’s. This result is compared to the somewhat different findings of earlier research in chapter 8.
6.2.6 Question O6 - Stage of Development of CREAM

Question O6 is one of a number in the survey to address stage of development of CREAM. The way real estate costs are apportioned was proposed by Joroff, et al (1993) as one indicator of the stage of development of CREAM, therefore, in question O6 six statements representing different approaches were put to the respondents (see Appendix A for details).

Unfortunately it was not made clear enough in the question that only one approach was to be selected and as a result 48 people ticked more than one box, reducing the usable single responses to 141. It was felt that this still reasonably representative and the results are shown in Figure 6.6.

Fig. 6.6 Question O6
Apportionment of Real Estate Costs

It can be seen that a clear distinction exists between those organizations who do not apportion real estate costs at all, or include them in a generic overhead apportionment and those who charge organizational units full OPEX and market related rents. There appear to be relatively few organizations occupying the “middle ground” in terms of this aspect of stage of development.
6.3 Management of Real Estate Assets

6.3.1 Question M1 – Existence of a Corporate Real Estate Unit

In this survey 63% of organizations had a dedicated corporate real estate unit, even if in some cases this was only an individual person. This result is remarkably similar to that of Teoh (1992) who found 62% of her sample with a separate unit.

6.3.2 Question M2 – Number of Corporate Real Estate Staff

This question asked for the number of property management staff (M2a) and the number of physical maintenance staff (M2b). The latter was answered by very few respondents and presented significant interpretation difficulties so has been omitted from further analysis.

For the 63% of organizations with a separate corporate real estate unit the number of property management staff was one or two. The balance of the distribution is shown in Figure 6.7.

Fig. 6.7 Question M2a
Number of Property Management Staff
Of those with more than ten property staff there was quite a variation, one organization reporting 70, another 40, and the balance between 13 and 24. The two organizations with very large numbers were a large government department and a territorial local authority, and it may be that their definition of property management staff was more encompassing than the others.

6.3.3 Question M3 – Restructuring of Corporate Real Estate Unit

This question again looked at restructuring, but in this case consideration was limited to only the corporate real estate unit. As a result those who did not have a separate unit were excluded from consideration, bringing the total sample down to 118. Amongst these there was a reasonably even distribution amongst the three options put forward in the questionnaire – 37% with extensive restructuring, 34% minimal restructuring and 29% not applicable.

6.3.4 Question M4 – Changes in Corporate Real Estate Related Employees

Figure 6.8 records changes in the number of employees engaged in property related work within the organizations surveyed.

Fig. 6.8 Question M4
Change in CRE Related Employees
In contrast with question M3 it includes all organizations, irrespective of whether they have a separate corporate real estate unit or not. It is notable that while the majority of organizations stayed about the same in terms of corporate real estate employees, for those experiencing a change far more had a decrease in numbers than an increase. This is likely to be related to the surge in interest in outsourcing corporate real estate responsibilities rather than a reflection of reduced importance of corporate real estate.

6.3.5 Question M5 – Space Supply Process

This question was also based on the earlier research of Joroff, et al (1993) and attempted to shed light on the stage of development of CREAM within organizations. Respondents were asked to select one of the six options below representing the process by which additional space would be provided for the operations of the organization.

1. The operating unit would arrange the supply of the additional space/land itself.

2. The operating unit would specify what was required, the real estate/property unit would then arrange for it to be purchased, constructed, leased or otherwise supplied. The operating unit would need to justify the cost.

3. The operating unit would specify what was required, the real estate/property unit would then arrange for it to be purchased, constructed, leased or otherwise supplied. The real estate/property unit would also be responsible for ensuring the real estate costs were not excessive.

4. The operating unit would identify a need, then the real estate/property unit would examine options and prepare a solution believed to meet the need at reasonable cost. The real estate/property unit may propose rearranging operations to meet the need within existing space or make other savings. If operating units reject these proposals they would have to develop and justify their preferred alternatives.
5. The operating unit would identify a need, then the real estate/property unit would offer a market based solution charging a readily determinable market rent. If there were specialized “non market” operational requirements these would be an additional cost to the operating unit.

6. All organizational space needs are anticipated by regular meetings of heads of operating units, the real estate/property unit and management. This team reviews and justifies existing real estate costs as well as the operational and financial implications of alternative options. Decisions arrived at are implemented by the real estate/property unit.

The results are shown in Figure 6.9.

![Fig. 6.9 Question M5 Space Supply Process](image)

Most organizations are operating at the lower to middle stages of corporate real estate development in respect of space supply processes, represented by process categories 1, 2, 3 and 4 with the latter being by far the dominant choice (and median). A small but significant number are operating at the highest level of 6.

6.3.6 Question M6 – Decision Making Processes

This question reflected aspects of both CREAM performance and corporate real estate stage of development via examination of methods used to assist in making real
estate related decisions. Respondents were asked to rate how often various techniques were applied and the combined results are shown in Figure 6.10.

A comparison of the median responses plus relative sizes of the bars on the graph, enables an understanding of the overall response of the sample. In this case it is notable that *relationship to market value* was the most important real estate decision making tool (median was category 4 – often used), but in question P5, 45% of respondents did not use current market value as their primary real estate value recording method.

*Non-financial factors* nearly always enter the decision making process (again median category 4) and for the financial issues, *accounting rates of return and discounted cash flow techniques* have roughly equivalent degrees of use (median was category 3 – sometimes used).

*Risk diversification* and *sale/leaseback analysis* are relatively rarely used (median categories of 2 and 2.5 respectively) and using *independent property consultants* occupied the middle ground.
6.3.7 Question M7 – Role of Corporate Real Estate Asset Management

Stage of development was again examined in question M7 where respondents were asked to select a single statement that most closely represented the current role of CREAM within their organization. See Appendix A for actual statement wording.

As for question M5 the results in Figure 6.11 show a dominance in the lower to middle stage of development levels with relatively few organizations operating at the higher end of the scale. None of the options presented adequately portrayed the role of CREAM in their organization for 9.5% of the respondents.

Teoh (1992) examined the structure and motives for the formation of corporate real estate units and the dominant themes were effective evaluation of individual property performance (21.4%), increased efficiency (35.7%), and generating revenue for overall corporate purposes (21.4%). While not directly comparable, these are quite similar to categories 1, 2 and 5 in Figure 6.11.
6.3.8 Question M8 – Attitude, Stage of Development and CREAM Performance

This section addressed various topics in a series of sub questions in which respondents were asked to rate the degree to which particular statements applied to their organizations. The questions were mixed up and had the expected order of response reversed in some cases to try and avoid biased or patterned responses. Therefore the three graphs below do not follow the order in the survey but group together sub questions that are addressing similar issues.

Questions M8a, M8b, M8c and M8e addressed issues relating to management attitude to Corporate Real Estate which has also been the focus of previous studies, (Veale 1989, Gale and Case 1989, Teoh 1992). As Teoh (1992) is the only significant research on CREAM in New Zealand to date, it was important to compare Teoh’s results with those of the current survey. For this reason some of the questions in this survey are identical or very similar to those of Teoh and/or Veale, this includes question M8a and M8e below.

As can be seen in Figure 6.12 a much smaller percentage now strongly agree with the statement corporate real estate is not important (12.5%) compared with Teoh’s findings in 1992 (53.7%). Conversely a much higher percentage strongly disagree with this position (22.3% vs. 9.8%). Management attitude towards corporate real estate has not markedly improved since earlier research, with 27% still tending to
agree with the attitude we are not in the real estate business compared with 29.6% in Teoh’s survey.

Organizational stage of development and life-cycle position were the focus of questions M8d, M8f, M8h and M8i, the results of which are shown in Figure 6.13.

![Figure 6.13 Questions M8d, M8f, M8h and M8i Indications of an Organisations Stage of Development](image)

Relatively few organizations determine their space needs by a standardized set of rules (21% replied applies or applies strongly), indicating progress beyond the initial stage of CREAM development. But neither do many organizations agree strongly with the statement teams and alliances are formed to solve particular real estate problems (34% replied applies or applies strongly), indicating relatively few are at the stage 4 or 5 level in the Joroff, et al, (1993) performance model.

However, financial risk reduction via real estate decisions is a factor considered by the majority of respondents (64% replied applies or applies strongly), a strong improvement on Teoh’s findings (36.6%) for the same issue in 1992.

In combination these three results indicate a middle stage of development approximating stage 3 on the Joroff et al (1993) model, which is consistent with the results of other questions in the survey addressing stage of development (questions O6, M5, M7 R5).
Results for question M8i which addressed the “lifecycle” stage of the organization were also consistent across the survey (in this case with question O5) in that relatively few respondents answers place their organization in the startup phase of the organizational life cycle.

Factors determined by earlier research to be related to overall CREAM performance include; corporate real estate staff being exposed to and understanding overall organizational strategy, having sufficient information and methodology to clearly evaluate real estate use-effectiveness and responsibility for real estate decisions not being delegated too far down. These three issues were the focus of questions M8j, M8k and M8l, while M8g asked for the respondent's own opinion as to whether CREAM in their organization needed major improvement.

The results in Figure 6.14 show 20% disagreeing strongly with the statement major improvement in CREAM is needed and a further 34% somewhat disagreeing. This total of 54% is higher than the equivalent combination of responses in the Teoh (1992) survey of 41%. The number of neutral responses has dropped from 37% to 20% and the number of responses indicating agreement with the proposition has
remained relatively stable at 26% compared with 22% for Teoh (1992). When these results are combined with other findings of this research it can be seen satisfaction with CREAM has improved.

The majority of respondents (57%) agreed or agreed strongly that they had a good understanding of the organization's overall strategy - only a slight improvement on the 54% found in earlier research. Percentages disagreeing were also similar.

Slightly over half (54%) felt sufficient information and technology to evaluate the use-effectiveness of real estate assets was available, this being a moderate increase over the 46% found in the Teoh survey. The number disagreeing with this statement declined from 27% to 20%.

As also found in the earlier survey, very few respondents (2.2%) felt responsibility for CREAM was delegated too far down in the organizational structure.
6.4 Individual Responsibilities

6.4.1 Question R1 – Respondent Title

This question asked for the respondent’s title within their organization. The most common title was property manager or some variation such as district property manager, property officer or property services manager, with 32% of the 190 valid responses in this category.

Next with 12% of the sample was a title indicating a finance orientation such as accountant, chief financial officer, finance manager and financial controller.

A number of titles with approximately 5% representation included asset manager, facilities manager, administration manager, corporate services manager and CEO/company secretary/general manager – the latter being treated as one group.

The remainder of the sample could not easily be allocated to groups and included titles such as chief valuer, legal manager, business manager property services, buildings and projects supervisor, director community facilities.

6.4.2 Question R2 – Tenure in Current Position

The wide variety of responses to question R2 can be seen in Figure 6.15 below. The number who have held their current position for less than a year is notable and the average tenure was calculated at 6.5 years.
6.4.3 Question R3 – Educational Qualifications

The majority of those responsible for the management of corporate real estate assets in New Zealand organizations have no educational qualifications related to property (63%). The next most common category was those with other professional qualifications that may be somewhat related to property such as those of lawyers, accountants or engineers (19%).
The Performance of Corporate Real Estate Asset Management in New Zealand

Those with a property degree who were also Registered Valuers accounted for 8% of respondents and a slightly smaller percentage of 6% applied to those with a property degree but without registered status. The relatively small number of Registered Valuers without a property degree and those with polytech property qualifications probably reveal the relatively recent emergence of the corporate real estate area as an employment area for property professionals, as these qualifications were phased out around 20 years ago.

The very low number of postgraduate property degree holders (1%) reflects the rarity of this level of qualification in New Zealand.

6.4.4 Question R4 – Title of Person Reported To

This question presented similar difficulties to those encountered in question R1 in that the title of the person the respondent reported to varied considerably.

By far the most commonly identified superior was the CEO (36%) followed by the CFO (10%). A further 5% reported to the corporate services manager and 3% directly to the board of directors or chairman of the board. The balance reported to positions with a wide variety of titles but questions later in the survey revealed these positions were generally only one or two steps removed from the CEO.

6.4.5 Question R5 – Importance of Various Activities

This question examined the importance of a range of real estate related activities to the position held by the respondents. For each of 12 issues (see sub questions R5a-R5l in Appendix A) a rating between 1 – not important, to 5 - critically important was to be applied. The results are shown in Figure 6.17.
Comparison of the relative sizes of the bars on the graph, especially those in the critically important and not important categories, provided some interesting insights.

Of most importance were *impact of a major real estate project on the balance sheet*, and *public perception of an organization* and *ensuring accounting information is available on individual properties*. According to earlier research (Veale 1988 1989, Pittman and Parker 1989, Gibson 1991 and others) the latter is a prerequisite to good CREAM performance, and the former two issues representative of the middle stages of CREAM development (Joroff et al 1993).

In contrast, *maximization of tax advantages, capital gain and refinancing opportunities* are characteristic of a high stage of development but are seen as relatively unimportant by respondents. However, part of this result may be related to the large number of not-for-profit organizations (such as government) in the sample.

For the issues *lease vs. own analysis, cost of accommodation per occupier*, *benchmarking and utilizing real estate for strategic advantage*, there were approximately even percentages of respondents rating the issues as critically important and not important, suggesting that these organizations have very different ways of operating.
6.4.6 Question R6 – Time Spent on Various Activities

This question was similar to R5 but focussed on the time spent on various activities by the respondent rated on a five-point scale from minimal time to most time.

Fig. 6.18 Questions R6a to R60
Time Spent on Activities by Respondents

See sub questions R6a-R60 in Appendix A for detailed wording.

Ratings 4 and 5, corresponding to higher commitments of time, were used relatively little across all activities. This indicated respondents spend smaller amounts of time across a wider range of tasks – reflected in the broad width of the “moderate” and “some time” bands in Figure 6.18.

Least time was spent on viability studies, supervising construction and buying and selling real estate assets. The minimal time spent on market analysis and strategic planning indicated a more reactive approach to management than occurs at the higher stages of CREAM development.
6.4.7 Question R7 – Decision-making by Operational Management

This question presented unanticipated analysis difficulties due to faulty question design, as some respondents ticked only one box whereas others ticked multiple boxes. Even so, clear patterns emerged from the results as shown in Figure 6.19.

Fig. 6.19 Question R7
CRE Decisions Taken by Operational Management

Decision types permitted

For the majority (62%) of organizations, core business operational management (as distinct from corporate real estate management) were permitted to make no real estate related decisions at all, or only maintenance decisions.

For the minority of operational units that could make further real estate related decisions the most common delegation was for lease negotiations. However, it was apparent when loading the data that if delegated authority extended beyond maintenance, then it often jumped to complete authority for real estate related decisions with all of the relevant boxes ticked.
6.5 Communication

6.5.1 Question C1 – Reporting Levels Away from CEO

As shown in Figure 6.20 for 79% of organizations real estate responsibility is only one or two levels removed from the chief executive officer.

![Fig. 6.20 Question C1 Reporting Levels away from CEO](image)

This would normally be reflective of a high level of CREAM performance or stage of development but in New Zealand the findings are complicated by the relatively small size of all organizations. For many of the smaller organizations in the sample the CEO takes complete responsibility for CREAM activities.

This situation presented some difficulties in the further analysis of the results, as did the use of differing terminology by Teoh (1992). Both these issues are discussed further in the following chapter.
6.5.2 Question C2 – Frequency of Liaison with Various Persons

In a number of sub questions (see Appendix A for details) respondents were asked to rate the frequency of their liaison with various persons. Results are shown in Figure 6.21.

![Figure 6.21 Questions C2a to C2g Frequency of Liaison with Others](image)

It is notable that, in contrast with Veale (1989), there is infrequent contact between the respondent and the chief financial officer and business unit heads. Again this may be a function of the relative size of the organizations surveyed and the number of respondents who were the CEO.

6.5.3 Question C3a - Existence of a Strategic Corporate Real Estate Plan

The existence of a strategic plan for real estate has been identified as a significant factor by Gibson (1991 1994 1995) and several other researchers, and was also highlighted by the case studies in chapter 4. In this survey 43% of organizations had a written strategic plan for property.
6.5.4 Question C3b - Months Since Strategic CRE Plan First Prepared

The responses to the above question, shown in Figure 6.22, indicate that while many organizations have had a strategic corporate real estate plan for some time, a significant percentage (44%) only prepared one within the last year.

![Fig. 6.22 Question C3b Months Since CRE Plan First Prepared](image)

6.5.5 Question C3c – Frequency of Strategic Corporate Real Estate Plan Review

As Figure 6.23 shows, for those organizations that do have a strategic corporate real estate plan, the most common period to review or update the plan is 12 monthly.

![Fig. 6.23 Question C3c Strategic Plan Review Period](image)
6.5.6 Question C3d - Degree of Integration of Corporate Real Estate Strategic Plan

In this question respondents were asked to rate the degree of integration of their corporate real estate plan with core business operations. Results are shown in Figure 6.24.

While not exactly the same, a question in Teoh’s survey was similar to question C3d in that it asked respondents to rate the statement *Real estate decision making is an integral part of corporate strategic planning*. Further comparisons of results are discussed in chapter 8.
6.6 Information Systems

6.6.1 Questions I1a and I1b – Importance and Performance of Corporate Real Estate Management Information Systems (MIS)

In question I1a the survey asked for a rating of the importance of an accurate and computerised MIS on a five-point scale from not important (1) to extremely important (5).

Similarly, I1b asked respondents to rate the performance of their existing MIS on a five-point scale from poor (1) to excellent (5). The results of both questions are shown in Figure 6.25.

Surprisingly, 10% rated having a good MIS as unimportant, but the majority reflected prior research reported in chapter 3 and rated the importance of accurate information highly.
The not important responses to I1 may be uninformed responses because respondents
did not have an adequate MIS system, reflected by the 28% not applicable response
to question M1b. This latter rate is, however, a marked improvement on the earlier
research of Teoh (1992), which found only 7% of organizations had a MIS system of
any description and 39% had no real estate inventory at all.

From the response to I1 b many MIS users are not happy with the performance of
their systems with only 4% rating their performance as excellent, and a total of 25%
rating the performance as 1 or 2 out of 5.

6.6.2 Questions 12 a to 12k - MIS Performance on Particular CRE Issues

Next addressed was the performance of the respondents MIS systems in dealing with
the specifically identified corporate real estate issues listed under question I2 in
Appendix A. Again a five-point rating was used and the results for each sub question
are represented by bar width in Figure 6.26.

**Fig. 6.26 Questions 12a to 12k**
**Performance of MIS Functions**

Corporate real estate issues
The area of poorest performance was recording of the number of people working within specific buildings – a key component of some corporate real estate benchmarking exercises. Following this, the recording of maintenance, identifying non-performing properties and recording purchase costs were similarly poorly rated.

The areas of best performance of MIS systems were in the recording of lease details, current use, physical characteristics and legal data. This is unsurprising as these are the details needed for conventional investment property management and form the basis of many standard property management software packages.
6.7 Outsourcing

The next section of the questionnaire dealt with the outsourcing of corporate real estate services. This issue is not considered in any detail in this thesis, however as the questionnaire was used to gather outsourcing data, in the interests of completeness a brief summary of the results of questions S1 to S11 is included below.

For a comprehensive review of the outsourcing literature and a complete analysis of the data collected refer to the separate paper by McDonagh and Hayward (2000).

6.7.1 Question S1a and S1b – Outsourcing Strategy

The first two questions asked whether the organizations had a specific outsourcing strategy and if so, whether that strategy was recorded in writing. While 62% of respondents reported having an outsourcing strategy, only 34% had committed this to writing, and it could be questioned how committed the organization was to this strategy if it had not been formally recorded.

6.7.2 Question S2 – Change in Frequency of Outsourcing

Outsourcing is a developing trend with 51% of organizations outsourcing more than five years ago, 43% outsourcing to the same extent and a small number (6%) outsourcing less.

6.7.3 Questions S3a to S3m – Corporate Real Estate Functions Outsourced

In this series of sub questions (see Appendix A) respondents were asked to rank on a four-point scale how frequently various corporate real estate functions were outsourced. Figure 6.27 shows the results.
The most frequently outsourced functions were real estate valuations, followed by building design and construction and fitout management. Less frequent were strategic planning, lease administration and site selection. It is notable that a particularly wide range of response applies to the market analysis/feasibility studies category, and to a lesser extent to property disposal and Resource Management Act/town planning issues.

6.7.4 Question S4 - Long Term Outsourcing Contracts

Only 20% of organizations in the survey had outsourcing contracts for periods of 3 years or longer.

6.7.5 Question S5 - Reasons for Outsourcing

Six options plus an other category were provided in this question (see Appendix A), and respondents were asked to rank the primary reasons organizations chose to outsource real estate related activities from 1 to 5, with 1 representing the main reason.
Figure 6.28 shows that access to skills, technology and best practice not available within the organization is the main outsourcing reason for most organisations and that, contrary to popular belief, cost savings are relatively unimportant. The independence of service providers in an outsourcing situation and recognition that real estate is not the organisations core business were other highly ranked reasons.

6.7.6 Question S6 – Identification of Service Providers
In question S6 respondents were asked to select the three methods most commonly used by their organisation to identify real estate service providers. The results for the 190 valid responses are shown in Figure 6.29 and the scores for the three top ranked methods were similar to those obtained by Kimbler and Rutherford (1993).

6.7.7 Questions S7, S8 and S9 – Choosing Service Providers

These three questions all used the same importance rating approach to gain insight into the way organisations choose from amongst service providers for outsourced real estate activities.

In question S7, 13 sub questions listed various characteristics of outsourcing service provider organizations (see Appendix A) for respondents to rate on a five-point scale. The results are shown in Figure 6.30.

In terms of making the final selection the four top ranked criteria of thirteen possible options reflected the situation found in earlier research by Kimbler and Rutherford (1993) in the USA, being *quality of employees, relevant experience, local expertise* and *reputation/references*. Interestingly, in New Zealand *service cost* was of only
moderate importance and company size, nationwide capability and breadth of service were the least important attributes of potential service providers.

A more detailed comparison with the Kimbler and Rutherford Survey is shown in Table 6.2.

**Table 6.2 Service Provider Selection Criteria Ranking Comparison**

<table>
<thead>
<tr>
<th>Selection Criteria</th>
<th>New Zealand Ranking</th>
<th>Kimbler and Rutherford Ranking</th>
</tr>
</thead>
<tbody>
<tr>
<td>Quality of Employees</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Experience</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Local Expertise</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>Reputation/Recommendation</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>Existing Relationship</td>
<td>5</td>
<td>N/A</td>
</tr>
<tr>
<td>Independence</td>
<td>6</td>
<td>12</td>
</tr>
<tr>
<td>Quality of Proposal/Presentation</td>
<td>7</td>
<td>9</td>
</tr>
<tr>
<td>Price/Fee</td>
<td>8</td>
<td>5</td>
</tr>
<tr>
<td>Methodology</td>
<td>9</td>
<td>N/A</td>
</tr>
<tr>
<td>Overall Chemistry</td>
<td>10</td>
<td>6</td>
</tr>
<tr>
<td>Breadth of Service</td>
<td>11</td>
<td>8</td>
</tr>
<tr>
<td>National Capability</td>
<td>12</td>
<td>7</td>
</tr>
<tr>
<td>Company Size/No. employees</td>
<td>13</td>
<td>15</td>
</tr>
</tbody>
</table>

In question S8, 11 sub questions listed various skills applicable to individuals employed by outsourcing service providers (see Appendix A) for respondents to rate on a five-point scale.

Results are shown in Figure 6.31
Again *experience* was extremely important followed by *timeliness*, *organizational understanding* and *market knowledge*. Least important were *qualifications*, which may be related to the fact that most of the respondents had no property qualifications of their own as reported in the results for question R3.

In question S9, 11 sub questions listed various personal attributes applicable to individuals employed by outsourcing service providers (see Appendix A) for respondents to rate on a five-point scale. The results are shown in Figure 6.32.

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**Fig. 6.31 Questions S8a to S8k**

Importance of Individual Criteria/Skills of Service Provider Staff

<table>
<thead>
<tr>
<th>Importance Level</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Extremely Important</td>
<td>100%</td>
</tr>
<tr>
<td>Very Important</td>
<td>90%</td>
</tr>
<tr>
<td>Moderate Importance</td>
<td>80%</td>
</tr>
<tr>
<td>Somewhat Important</td>
<td>70%</td>
</tr>
<tr>
<td>Not Important</td>
<td>60%</td>
</tr>
</tbody>
</table>

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**Fig. 6.32 Questions S9a to S9k**

Personal Attributes of Service Provider Staff

<table>
<thead>
<tr>
<th>Attribute</th>
<th>Importance Level</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Extremely Important</td>
<td>100%</td>
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</tr>
<tr>
<td>Highly Important</td>
<td>90%</td>
<td></td>
</tr>
<tr>
<td>Very Important</td>
<td>80%</td>
<td></td>
</tr>
<tr>
<td>More Important</td>
<td>70%</td>
<td></td>
</tr>
<tr>
<td>Important</td>
<td>60%</td>
<td></td>
</tr>
</tbody>
</table>
Timeliness again featured prominently in the responses to this question, as did confidentiality, accuracy/thoroughness and sound judgement. Least important was the ability to work in teams which may be a result of the us (organizational staff) and them (service providers) mentality that commonly applies to outsourcing situations (McDonagh and Hayward 2000).

6.7.8 Question S10 – Outsourcing Success Factors

This question attempted to identify the factors that were most important to successful outsourcing of corporate real estate services. Again respondents were asked to rate a number of different factors as detailed in Appendix A and the results for the 14 sub questions are shown in Figure 6.33.

Fig. 6.33 Questions S10a to S10n
Factors Contributing to Successful Outsourcing

Ratings were somewhat different than in overseas studies in that fee structures, performance measures and well-developed service level agreements were less important, and factors such as business understanding, quality personnel and service, responsiveness, clear objectives and communications were to the fore. This may well be a reflection of the relatively small scale of the market in New Zealand.
6.7.9 Question S11 – Overall Success of Outsourcing

The final question in the outsourcing section asked respondents with experience of outsourcing how successful they felt it was. There was then space for qualitative comments on ways in which outsourcing was successful or otherwise, followed by an indication of whether any previously outsourced functions had been taken back “in house”.

Figure 6.34 shows that respondents overall experiences with outsourcing are mixed. None said it was an unqualified success and a total of 66% said it was unsuccessful or somewhat unsuccessful.

Positive comments included:

“It frees internal staff to concentrate on core business and brings professional knowledge to decisions”

“Employees and management can focus on core business without distraction”

“It removes the internal hassle, better use of staff resources and independent service”
"It allows (internal) staff to concentrate on big picture items"
"Ability to add value to the business through skills not available in the organization"

Negative comments included:

"Loss of knowledge of assets"
"Complacency over time by service provider"
"Forget who client is, inflexible or not understanding internal pressures"
"Lack of understanding of core business drivers by service providers"
"Can become a captive client"
"Insufficient resource remaining to complete day to day tasks properly"
"Ill defined brief and costly, unnecessary work"

There was support for retention of an “in house property expert”, but at an upper strategic level well integrated with the core business and with little in the way of day to day property responsibilities.

Over 12% of the total sample and 19% of the larger portfolios had taken “back in house” functions that had previously been outsourced, indicating unsatisfactory experiences with at least some aspects. These functions included project management, disposals and acquisitions, planning and policy development and property administration.
6.8 Property Portfolio

The questions in the questionnaire numbered P1 to P6 addressed aspects of the respondent organizations property portfolios so that correlations between portfolio factors and other variables could be examined.

6.8.1 Question P1 – Number of Freehold Properties Owned

Respondents were asked to select one of seven categories shown in Figure 6.35 to represent the size of their portfolio in terms of number freehold of properties owned.

It is notable that the largest category was organizations with more than 100 freehold properties, reinforcing the results from question O3 (number of employees) which indicated that the responding organizations were large in terms of typical New Zealand businesses. However, the second largest category was at the opposite end of the scale (1-5 freehold properties), and there were a significant number of organizations with no freehold properties at all. As this distribution was not reflected in question O3 it emphasises that many New Zealand organizations choose to lease property irrespective of their relative size in terms of employee numbers. This issue is examined further below and in following chapters.
6.8.2 Question P2 – Value of Freehold Properties Owned

This was similar to question P1 except the seven categories in Figure 6.36 were identified in terms of the total value of the organizations freehold property portfolio in millions of dollars.

As would be expected given the results from question P1 11% had a nil return, and there was a relatively small number of low value portfolios and a large number of high value portfolios.
6.8.3 Question P3 Number of Properties Leased

Again a similar style of question to P1 but this time requesting an indication of the number of properties leased by the respondent organization.

![Fig. 6.37 Question P3 Number of Properties Leased](image)

The results were relatively even across all categories except for a relatively small number (5%) who do not lease at all and a large number (34%) who lease from 1-5 properties. As this latter category was also well represented in the freehold ownership question (P1), it may indicate that organizations tend to fall into one of two categories – those with a relatively large number of freehold properties, or alternatively those with a relatively small number of properties more evenly distributed between leasehold and freehold tenure.

6.8.4 Question P4 – Annual Rental Costs

In this question respondents were asked to state their organizations approximate annual rental costs if known. Only 56% provided a response to this question so the results may not be particularly representative, but the mean annual rental figure calculated was 3.84 million.
6.8.5 Question P5 - Preference to Own or Lease

A five-point scale was used in this question to determine the respondent organization’s preference for leasehold or freehold tenure. The results are shown in Figure 6.38

![Fig. 6.38 Question P5 Preference to Own or Lease](image)

The results of question P5 reflect the portfolio structure revealed in the earlier questions in that there are two quite large groups with tenure preferences at the opposite ends of the scale. Then, in between, three groups with more moderate attitudes to tenure but with a bias towards freehold ownership.

6.8.6 Question P6 – Corporate Real Estate Value Recording Method

The final question asked for the methodology generally employed by organizations to record real estate value. For the majority (55%) current market value was preferred, with a relatively even distribution amongst the other two alternatives of 25% for historic cost and 20% for depreciated replacement cost.
6.9 Conclusion

Almost all of the questions in the survey questionnaire yielded useable and representative data, which was presented in descriptive form in this chapter. Due to the large number of questions and the wide range of topics covered not all of the data collected is analysed in further detail in this study. However, that data that is directly related to the research questions described in chapter 2 is subject to correlational analysis in chapter 7. The results of both chapters 6 and 7 are then discussed further in chapter 8.
Chapter 7

CORRELATIONAL ANALYSIS OF SURVEY RESULTS

7.1 Introduction

The previous chapter detailed the descriptive results for all questions in the mail survey of CREAM practices in New Zealand organizations. In this chapter correlational analysis is applied to specific data using the processes outlined in chapter 5 in order to provide insight into Research Questions 3, 4 and 5.

7.2 Research Question 3 - Can a Simple Model of Corporate Real Estate Asset Management Performance be Developed?

7.2.1 Determining the Variables to Include in the CREAM Performance Model

The questions in the mail survey that relate in some way to the "dimensions of performance" or "performance factors" identified by Veale (1988, 1989) and Pittman and Parker (1989) are listed below and subsequently discussed in detail.

<table>
<thead>
<tr>
<th>Question Number</th>
<th>&quot;Dimension of performance&quot; or &quot;Performance factor&quot;</th>
</tr>
</thead>
<tbody>
<tr>
<td>M1, R5h, C1, C2</td>
<td>Existence of a separate corporate real estate unit</td>
</tr>
<tr>
<td>C3a, M8j, M8a, M8b, M8c</td>
<td>Cash flow contribution by the corporate real estate unit</td>
</tr>
<tr>
<td>I1b, I2a to I2k</td>
<td>Reporting level/frequency</td>
</tr>
<tr>
<td>M8k, R5l, M6a to M6g</td>
<td>Strategic planning for corporate real estate</td>
</tr>
<tr>
<td></td>
<td>Attitudes towards and processes for managing CRE</td>
</tr>
<tr>
<td></td>
<td>Management information systems for corporate real estate</td>
</tr>
<tr>
<td></td>
<td>Information and techniques used for CRE decision making</td>
</tr>
</tbody>
</table>
Survey questions M1 and R5h reflected variables that were unlikely to be misinterpreted and, as responses to these questions were clear, the results obtained for these variables were included directly in the CREAM performance model.

The two questions below addressed the issue of reporting level and frequency and, although they could be individually answered clearly by respondents, the results highlighted particular problems in using these in a New Zealand setting.

<table>
<thead>
<tr>
<th>Question Number</th>
<th>High Performance Response</th>
<th>Question Topic</th>
</tr>
</thead>
<tbody>
<tr>
<td>C1</td>
<td>1</td>
<td>Reporting level</td>
</tr>
<tr>
<td>C2a</td>
<td>1</td>
<td>Frequency of liaison with CEO</td>
</tr>
</tbody>
</table>

The literature (Veale 1988, 1989, Pittman and Parker 1989 and others) has established the importance to CREAM performance of a close relationship between the person responsible for corporate real estate and the CEO. New Zealand organizations are relatively small, with few levels of control as was evident in an initial scan of the survey data. This meant there was insufficient differentiation within the sample to permit meaningful analysis on the basis of organizational level alone. Therefore a refinement was adopted where reporting level (question C1) was combined with reported frequency of liaison with the CEO (question C2a).

The result was a composite 17 level measure as follows.
The Performance of Corporate Real Estate Asset Management in New Zealand

<table>
<thead>
<tr>
<th>Composite Level of Relationship</th>
<th>Reporting Level</th>
<th>Frequency of Liaison</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>1</td>
<td>daily</td>
</tr>
<tr>
<td>2</td>
<td>1</td>
<td>weekly</td>
</tr>
<tr>
<td>3</td>
<td>2</td>
<td>daily</td>
</tr>
<tr>
<td>4</td>
<td>2</td>
<td>weekly</td>
</tr>
<tr>
<td>5</td>
<td>3</td>
<td>weekly</td>
</tr>
<tr>
<td>6</td>
<td>4</td>
<td>weekly</td>
</tr>
<tr>
<td>7</td>
<td>1</td>
<td>monthly</td>
</tr>
<tr>
<td>8</td>
<td>2</td>
<td>monthly</td>
</tr>
<tr>
<td>9</td>
<td>3</td>
<td>monthly</td>
</tr>
<tr>
<td>10</td>
<td>4</td>
<td>monthly</td>
</tr>
<tr>
<td>11</td>
<td>1</td>
<td>quarterly</td>
</tr>
<tr>
<td>12</td>
<td>2</td>
<td>quarterly</td>
</tr>
<tr>
<td>13</td>
<td>3</td>
<td>quarterly</td>
</tr>
<tr>
<td>14</td>
<td>1</td>
<td>annually</td>
</tr>
<tr>
<td>15</td>
<td>2</td>
<td>annually</td>
</tr>
<tr>
<td>16</td>
<td>3</td>
<td>annually</td>
</tr>
<tr>
<td>17</td>
<td>4</td>
<td>annually</td>
</tr>
</tbody>
</table>

In subsequent analysis this new composite level of relationship variable named “report” was used, but this was not completely satisfactory as will be discussed in section 7.2.2 of this chapter.

Testing Hypothesis (i) - Consistency of Response

For the remaining “dimensions of performance” or “performance factor” questions there was more scope for ambiguous responses as the questions reflected matters of opinion rather than fact. To reduce the impact of such responses and also cope with missed questions and the inconsistency of some respondents, a number of survey questions were asked addressing the same issue in differing ways. It was not the objective of these multiple questions to increase the number of variables under consideration. Rather, if consistency of response could be shown amongst similar questions then Hypothesis (i) could be rejected, and a variable representing the response to a single question could be used in the performance model with increased confidence. If responses regarding the same issue were inconsistent the situation could be investigated further.
As detailed below, respondents were found to be consistent in their responses to almost all questions addressing the same topic. Correlations between these responses were generally statistically significant at least at the 5% level. As a result, the response to a single “best” question for each factor or dimension of performance could be used in the CREAM performance model with increased confidence. The correlation results and the rationale for the choice of each “best” question are detailed below.

Questions on Strategic Planning

<table>
<thead>
<tr>
<th>Question Number</th>
<th>High Performance Response</th>
<th>Question Topic</th>
</tr>
</thead>
<tbody>
<tr>
<td>C3a</td>
<td>1</td>
<td>Existence of written CRE strategic plan</td>
</tr>
<tr>
<td>M8j</td>
<td>1</td>
<td>Understanding of core strategy</td>
</tr>
</tbody>
</table>

Question C3a asked directly if the responding organization had a written overall strategic plan for real estate, whereas question M8j addressed the issue less directly by asking if staff have regular exposure to and a good understanding of overall organizational strategy on which to base real estate decisions. A high correlation was expected between these questions and this was found to be the case with a 2 tailed p value of .021 using the Mann-Whitney U test.

Therefore the more specific variable derived from C3a – existence of a written overall strategic plan for real estate was adopted for the performance model.

Questions on Management Attitude to CREAM

<table>
<thead>
<tr>
<th>Question Number</th>
<th>High Performance Response</th>
<th>Question Topic</th>
</tr>
</thead>
<tbody>
<tr>
<td>M8a</td>
<td>5</td>
<td>CRE considered not important to organization</td>
</tr>
<tr>
<td>M8b</td>
<td>5</td>
<td>CRE unit regarded negatively</td>
</tr>
<tr>
<td>M8c</td>
<td>1</td>
<td>CRE unit regarded positively</td>
</tr>
</tbody>
</table>

A similar process to that above was applied to questions M8a, M8b, and M8c testing for correlation using the Spearman Correlation Coefficient. Again the results were as expected with highly significant correlations in the appropriate directions between M8a
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and M8b (r= 0.34, p= <0.000), M8a and M8c (r= -0.45, p= <0.000) and M8b and M8c (r= -0.42 p= <0.000).

As a result the response to question M8a -CRE considered not important to organization was adopted for the CREAM performance model.

Questions on the Use of Management Information Systems for CREAM

Question I1b asked for the respondents to self-rate the overall performance of their current MIS system (if applicable), whereas Questions I2a to I2k examined the performance of the respondents MIS system on a range of attributes, (see Appendix A for question details). Each of these attributes were non-exclusive or inherently superior, however MIS systems providing a high level of detail on a greater variety of attributes were likely to exhibit a higher level of overall performance.

Spearman Correlation Coefficients were applied and the results showed significant correlations (r value range of 0.19 to 0.51, p value range of 0.038 to <0.000) between answers on each of the individual attributes and Question I1b. Significant correlations also occurred for all but one of the possible combinations amongst I2a to I2k. The exception was I2a -Current use with I2h -Maintenance programme, which had an r value of 0.12 and a p value of 0.170.

In addition, the scores for individual attribute questions were summed to obtain a composite measure for the performance of MIS systems for CREAM – named I2 Total. The result of this process was again highly correlated with I1b (r=0.37, p=<0.000).

The I2 total variable helped confirm the validity of I1b as an appropriate performance variable, but was rejected as an alternative to I1b. It was felt the summation of scores was more artificial than a MIS performance rating direct from the respondents. In addition, for some organizations individual component questions may have been inappropriate adversely affecting the I2 total score.
The result of the above analysis was very high confidence that the response to the more holistic Question IIb (a rating for the overall performance of the organizations property database) was fully representative of the sample and therefore this variable was adopted for the model of CREAM performance.

### Questions on Availability of Information and Processes for CREAM Decision-Making

Consistency of response was also anticipated in respect of the following questions dealing with information and processes for CREAM decision making.

<table>
<thead>
<tr>
<th>Question Number</th>
<th>High Performance Response</th>
<th>Question Topic</th>
</tr>
</thead>
<tbody>
<tr>
<td>M6a</td>
<td>5</td>
<td>Accounting rate of return/payback</td>
</tr>
<tr>
<td>M6b</td>
<td>5</td>
<td>DCF techniques</td>
</tr>
<tr>
<td>M6c</td>
<td>5</td>
<td>Risk diversification issues</td>
</tr>
<tr>
<td>M6d</td>
<td>5</td>
<td>Relationship to market value/rent</td>
</tr>
<tr>
<td>M6e</td>
<td>5</td>
<td>Sale leaseback analysis</td>
</tr>
<tr>
<td>M6f</td>
<td>5</td>
<td>Non financial considerations</td>
</tr>
<tr>
<td>M6g</td>
<td>5</td>
<td>Use of CRE consultants</td>
</tr>
<tr>
<td>R5l</td>
<td>5</td>
<td>Accounting information on individual properties</td>
</tr>
<tr>
<td>M8k</td>
<td>5</td>
<td>Availability of info/ methods for evaluating CRE</td>
</tr>
</tbody>
</table>

Using Spearman Correlation Coefficients to compare individual answers to questions M6a through M6g, and R5l with the results for the more holistic question M8k, identified no significant correlations (r values range -0.13 to 0.14, p values range 0.946 to 0.084). However, a number of highly significant correlations were measured amongst M6a to M6g questions and between these questions and the answers to question R5l.

To investigate further, the responses for questions M6a to M6f were summed to create a new variable **M6 total**. The rationale was that not all the decision making techniques identified in the individual sub questions are appropriate for all organizations, but in
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general those using more of the techniques, more frequently are likely to make better CREAM decisions. This combination of factors would be reflected in a totaled score.

M6g was omitted from the total, as the use of independent consultants is likely to be influenced by a variety of factors, which could be both positively and negatively correlated with decision-making processes. For example, consultants may be used as a result of lack of expertise in one or more of the identified techniques and therefore negatively correlated with those factors, (negative correlations were in fact observed but only at the 10% significance level).

The result of the analysis was that the new M6 total variable again did not show a significant relationship with the M8k response, but was highly correlated with R51.

It was apparent that question M8k was significantly out of step with other questions on decision making processes, which were displaying the expected consistency of response. An examination of the distribution of responses to question M8k (Figure 6.14) shows little variation between options 3, 4 and 5 (in comparison to responses to questions R6a – R6g and R51). This may indicate a problem with the wording of the question. This proposition is also supported by the lack of expected correlation between question M8k and other performance variables, as reported in the following section 7.2.2

Use of R51 as the performance variable was theoretically more defensible than use of the “calculated” M6 total variable, as the use of property by property accounting methods was specifically identified as a “dimension of performance” by Veale (1989). Further weight was lent to this decision by significant correlations between R51 and four of the seven M6 sub-questions, as well as the highly significant correlation with the new M6 total combined variable.

As a result of the above analysis the response to question R51 – Accounting information being available on individual properties was chosen as the best variable to holistically represent corporate real estate information and decision making processes.
7.2.2. Correlations between Performance Variables within Organizations

Veale (1989) proposed that various factors/dimensions of performance are usually strongly correlated within individual organizations. Therefore, to test for the same relationship amongst respondent organizations in the New Zealand CREAM survey resulted in the following hypothesis:

**HYPOTHESIS (ii)**

*No statistically significant correlation was observed in the survey sample between any of the variables reflecting CREAM performance factors or dimensions of performance established by earlier research.*

Table 7.1 below shows the results for associations between each of seven performance variables identified as a result of testing Hypothesis (i) in section 7.2.1. Statistically significant results are highlighted. The statistical tests used were: for combinations of binary with ordinal variables – Mann Whitney U; for combinations of two ordinal variables – Spearman Correlation Co-efficients

<table>
<thead>
<tr>
<th>Table 7.1 Associations Between CREAM Performance Variables</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>p values</strong></td>
</tr>
<tr>
<td>---------------</td>
</tr>
<tr>
<td>M1 CRE unit¹</td>
</tr>
<tr>
<td>R5h Cashflow²</td>
</tr>
<tr>
<td>C1&amp;C2a Report³</td>
</tr>
<tr>
<td>C3a Strat Plan⁴</td>
</tr>
<tr>
<td>M8a Attitude⁵</td>
</tr>
<tr>
<td>11b MIS⁶</td>
</tr>
<tr>
<td>M8k Decisions⁷</td>
</tr>
</tbody>
</table>

Cells highlighted show relationships significant at the 5% level

¹ M1 CRE unit = Existence of a separate corporate real estate unit
² R5h Cashflow = Cash flow contribution by the corporate real estate unit
³ C1&C2a Report = Combined reporting level and frequency of liaison
⁴ C3a Strat Plan = Existence of written CRE strategic plan
⁵ M8a Attitude = CRE considered not important to organization
⁶ 11b MIS = the overall performance of current MIS system
⁷ M8k Decisions = Availability of information and methods for evaluating CRE
Significant associations exist for most combinations of variables in Table 7.1, supporting Veale’s proposition and giving confidence to the theory that the identified variables may be able to be condensed into a single measure of CREAM performance.

As a result Hypothesis (ii) can be rejected with confidence.

However, the correlations for variables reflecting reporting level/frequency (Report) and information availability/decision-making methods (M8k) were not so strong, and so investigation into these variables was carried further.

**Reporting Level/Frequency Variable Problems**

The combination of questions C1 and C2a had resulted in the 17 level Report variable as discussed earlier. When this measure was tested for correlation with the other variables of interest it was found that significant results only occurred for half of the possible combinations.

This was out of step with the results for most of the other variables, and contrary to the theory being tested. It was therefore considered that such a fine categorization of the question responses relative to the five or six categories used for many of the other variables might be responsible for the lack of correlation. In addition, it was noted that using the 17 level categorization, the distribution was very heavily skewed towards the lower end of the scale – again the result of small organizational size in New Zealand and thus close relationships existing with the CEO.

To address these problems, a new variable representing reporting level/frequency was created by reducing the previous 17 levels to 6 by combining various responses as shown below. This new variable was named “Combined Report”
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The same analysis was then carried out using the Combined Report variable instead of the original Report variable. A comparison of the results (p-values) is shown in Table 7.2 below.

<table>
<thead>
<tr>
<th>Level of Organizational Separation</th>
<th>Liaison Frequency</th>
<th>Initial “Report” variable level</th>
<th>“Combined Report” variable level</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>daily</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>1</td>
<td>weekly</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>2</td>
<td>daily</td>
<td>3</td>
<td>1</td>
</tr>
<tr>
<td>2</td>
<td>weekly</td>
<td>4</td>
<td>2</td>
</tr>
<tr>
<td>3</td>
<td>weekly</td>
<td>5</td>
<td>2</td>
</tr>
<tr>
<td>4</td>
<td>weekly</td>
<td>6</td>
<td>2</td>
</tr>
<tr>
<td>1</td>
<td>monthly</td>
<td>7</td>
<td>3</td>
</tr>
<tr>
<td>2</td>
<td>monthly</td>
<td>8</td>
<td>3</td>
</tr>
<tr>
<td>3</td>
<td>monthly</td>
<td>9</td>
<td>3</td>
</tr>
<tr>
<td>4</td>
<td>monthly</td>
<td>10</td>
<td>3</td>
</tr>
<tr>
<td>1</td>
<td>quarterly</td>
<td>11</td>
<td>4</td>
</tr>
<tr>
<td>2</td>
<td>quarterly</td>
<td>12</td>
<td>4</td>
</tr>
<tr>
<td>3</td>
<td>quarterly</td>
<td>13</td>
<td>4</td>
</tr>
<tr>
<td>1</td>
<td>annually</td>
<td>14</td>
<td>4</td>
</tr>
<tr>
<td>2</td>
<td>annually</td>
<td>15</td>
<td>5</td>
</tr>
<tr>
<td>3</td>
<td>annually</td>
<td>16</td>
<td>5</td>
</tr>
<tr>
<td>4</td>
<td>annually</td>
<td>17</td>
<td>5</td>
</tr>
</tbody>
</table>

Although many of the results improved slightly, the differences were not large and half the performance variables still showed no significant relationship with Combined Report - the same result as for the Report variable.

It was concluded that due to organizations having few levels in New Zealand, and corporate real estate people reporting at higher levels as a result, the reporting level factor in CREAM performance may be relatively insignificant here compared to overseas research. Therefore, in the interests of simplicity, reporting level/frequency could potentially be excluded from the model of CREAM performance in New Zealand. This aspect will be considered further in the factor analysis stage of this research.
Which is the best variable to represent Availability of Information and Processes for CREAM Decision-Making – M8k, M6 total or R51?

A preliminary assessment was made in section 7.2.1 of this chapter that R51 - Accounting information available on individual properties may be a better variable to include in the performance model than either the initial choice M8k - Availability of info/methods for evaluating CRE or the combined variable M6 total.

In order to further support the choice of a single information/decision making process variable, a further test was carried out in which correlations were calculated between all the other key components of the performance model and these three decision making variables.

The results are shown below in Table 7.3 and indicate that R51 - Accounting information available on individual properties is highly correlated with the other six performance variables. M6 Total is slightly worse, but both are significantly better than M8k – Insufficient info/methods for CREAM, again supporting the rejection of this variable as a significant performance factor.

Table 7.3 Associations Between Decision Making Variables and Other Performance Variables

<table>
<thead>
<tr>
<th>p value</th>
<th>M1 CRE unit</th>
<th>R5h Cashflow</th>
<th>C1&amp;C2a Report</th>
<th>C3a Strat Plan</th>
<th>M8a Attitude</th>
<th>11b MIS</th>
<th>M8k Decisions</th>
</tr>
</thead>
<tbody>
<tr>
<td>R51 Accounting</td>
<td>0.000</td>
<td>0.000</td>
<td>0.006</td>
<td>0.020</td>
<td>0.003</td>
<td>0.020</td>
<td>0.170</td>
</tr>
<tr>
<td>M6 Total</td>
<td>0.003</td>
<td>0.000</td>
<td>0.299</td>
<td>0.076</td>
<td>0.037</td>
<td>0.003</td>
<td>0.175</td>
</tr>
<tr>
<td>M8k Decisions</td>
<td>0.631</td>
<td>0.953</td>
<td>0.317</td>
<td>0.389</td>
<td>0.005</td>
<td>0.128 #</td>
<td></td>
</tr>
</tbody>
</table>

Cells highlighted show relationships significant at the 5% level

As R51 had the stronger associations and also (as mentioned earlier) it was theoretically more justifiable to use this result than the calculated variable M6 total, a final decision was arrived at to use the R51 Accounting information available on individual properties results for evaluating CREAM in the final derived model of CREAM performance.
7.2.3 Factor Analysis Applied to Identified CREAM Performance Variables

The next step in the analysis was to identify a single measure of CREAM performance that could adequately represent the combined contribution of the individual dimensions/factors of performance selected in the section 7.2.2. This resulted in the following hypothesis.

**HYPOTHESIS (iii)**

*No single factor measure can be derived that adequately represents the combination of multiple CREAM performance factors or dimensions of performance established by earlier research.*

The seven variables listed below were first ranked and then subject to principal components analysis.

- **C3ASPLA** = Existence of written CRE strategic plan
- **COMBREP** = Combined reporting level and frequency of liaison
- **I1BMIS** = The overall performance of current MIS system
- **M1UNIT** = Existence of a separate corporate real estate unit
- **M8ATTUD** = CRE considered not important to organization
- **R5HCFLO** = Cash flow contribution by the corporate real estate unit
- **R5LACIN** = Accounting information available on individual properties

The results are shown in Table 7.4.
Table 7.4 Factor Analysis

Analysis Number 1

Pairwise deletion of cases with missing values

Extraction 1 for analysis 1, Principal Components Analysis (PC)

Initial Statistics:

<table>
<thead>
<tr>
<th>Variable</th>
<th>Communality</th>
<th>Factor</th>
<th>Eigenvalue</th>
<th>% of Variation</th>
<th>Cumulative %</th>
</tr>
</thead>
<tbody>
<tr>
<td>C3ASPLA</td>
<td>1.00000</td>
<td>1</td>
<td>2.45772</td>
<td>35.1</td>
<td>35.1</td>
</tr>
<tr>
<td>COMBREP</td>
<td>1.00000</td>
<td>2</td>
<td>1.00637</td>
<td>14.4</td>
<td>49.5</td>
</tr>
<tr>
<td>11BMIS</td>
<td>1.00000</td>
<td>3</td>
<td>.95982</td>
<td>13.7</td>
<td>63.2</td>
</tr>
<tr>
<td>M1UNIT</td>
<td>1.00000</td>
<td>4</td>
<td>.79381</td>
<td>11.3</td>
<td>74.5</td>
</tr>
<tr>
<td>M8ATTUD</td>
<td>1.00000</td>
<td>5</td>
<td>.67507</td>
<td>9.6</td>
<td>84.2</td>
</tr>
<tr>
<td>R5HCFL</td>
<td>1.00000</td>
<td>6</td>
<td>.57700</td>
<td>8.2</td>
<td>92.4</td>
</tr>
<tr>
<td>R5LACIN</td>
<td>1.00000</td>
<td>7</td>
<td>.53021</td>
<td>7.6</td>
<td>100.0</td>
</tr>
</tbody>
</table>

PC extracted 2 factors.

Factor Matrix:

<table>
<thead>
<tr>
<th>Factor 1</th>
<th>Factor 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>MIUNIT</td>
<td>.70512</td>
</tr>
<tr>
<td>C3ASPLA</td>
<td>.69044</td>
</tr>
<tr>
<td>11BMIS</td>
<td>.61572</td>
</tr>
<tr>
<td>R5HCFL</td>
<td>.56312</td>
</tr>
<tr>
<td>R5LACIN</td>
<td>.54176</td>
</tr>
<tr>
<td>M8ATTUD</td>
<td>.53642</td>
</tr>
<tr>
<td>COMBREP</td>
<td>.45426</td>
</tr>
</tbody>
</table>

Final Statistics:

<table>
<thead>
<tr>
<th>Variable</th>
<th>Communality</th>
<th>Factor</th>
<th>Eigenvalue</th>
<th>% of Variation</th>
<th>Cumulative %</th>
</tr>
</thead>
<tbody>
<tr>
<td>C3ASPLA</td>
<td>.47800</td>
<td>1</td>
<td>2.45772</td>
<td>35.1</td>
<td>35.1</td>
</tr>
<tr>
<td>COMBREP</td>
<td>.83458</td>
<td>2</td>
<td>1.00637</td>
<td>14.4</td>
<td>49.5</td>
</tr>
<tr>
<td>11BMIS</td>
<td>.38906</td>
<td>3</td>
<td>.95982</td>
<td>13.7</td>
<td>63.2</td>
</tr>
<tr>
<td>M1UNIT</td>
<td>.54161</td>
<td>4</td>
<td>.79381</td>
<td>11.3</td>
<td>74.5</td>
</tr>
<tr>
<td>M8ATTUD</td>
<td>.44283</td>
<td>5</td>
<td>.67507</td>
<td>9.6</td>
<td>84.2</td>
</tr>
<tr>
<td>R5HCFL</td>
<td>.45503</td>
<td>6</td>
<td>.57700</td>
<td>8.2</td>
<td>92.4</td>
</tr>
<tr>
<td>R5LACIN</td>
<td>.32297</td>
<td>7</td>
<td>.53021</td>
<td>7.6</td>
<td>100.0</td>
</tr>
</tbody>
</table>

Skipping rotation 1 for extraction 1 in analysis 1
It can be seen that two factors were extracted (Eigen values >1), but the relative contribution of each of the seven variables to the two factors was very different. For Factor 1 the contribution of all variables is relatively even, but for Factor 2 the contribution is primarily from COMBREP *(Combined Report)*.

Factor 1 explained 35.1% of variation and Factor 2 14.4% of variation.

As discussed in sections 7.2.1 and 7.2.2 the *Combined Report* (COMBREP) variable was also associated with inconsistent results in the correlation analysis section of this study. The proposition was put forward earlier that the small number of levels typical in New Zealand organizations and the resultant highly skewed distribution of the *Report* variable was distorting the analysis. The skewness was reduced somewhat by reducing the number of categories resulting in the new *Combined Report* variable, but no significant improvements in correlation were observed.

As can be seen from the descriptive statistics (Figures 6.20 and 6.21) most of the responses to questions C1 and C2 are in high level categories. It is therefore again proposed (as previously in section 7.2.2) that in a New Zealand context reporting level may be a relatively insignificant factor in CREAM performance, compared with overseas research.

The results of the initial factor analysis seem to confirm the above proposition, with the *Combined Report* variable again significantly out of step. As a further check the Factor analysis was re-run with the *Combined Report* variable deleted. The results are shown in Table 7.5.
Table 7.5 Factor Analysis

Analysis Number 2

Pairwise deletion of cases with missing values

Extraction 1 for analysis 2, Principal Components Analysis (PC)

**Initial Statistics:**

<table>
<thead>
<tr>
<th>Variable</th>
<th>Communality</th>
<th>Factor</th>
<th>Eigenvalue</th>
<th>% of Variation</th>
<th>Cumulative %</th>
</tr>
</thead>
<tbody>
<tr>
<td>C3ASPLA</td>
<td>1.00000</td>
<td>1</td>
<td>2.32635</td>
<td>38.8</td>
<td>38.8</td>
</tr>
<tr>
<td>IBMIS</td>
<td>1.00000</td>
<td>2</td>
<td>.96008</td>
<td>16.0</td>
<td>54.8</td>
</tr>
<tr>
<td>M1UNIT</td>
<td>1.00000</td>
<td>3</td>
<td>.79976</td>
<td>13.3</td>
<td>68.1</td>
</tr>
<tr>
<td>M8ATTUD</td>
<td>1.00000</td>
<td>4</td>
<td>.70263</td>
<td>11.7</td>
<td>79.8</td>
</tr>
<tr>
<td>R5HCFLRO</td>
<td>1.00000</td>
<td>5</td>
<td>.65312</td>
<td>10.9</td>
<td>90.7</td>
</tr>
<tr>
<td>R5LACIN</td>
<td>1.00000</td>
<td>6</td>
<td>.55805</td>
<td>9.3</td>
<td>100.0</td>
</tr>
</tbody>
</table>

PC extracted 1 factors.

**Factor Matrix:**

<table>
<thead>
<tr>
<th></th>
<th>Factor 1</th>
</tr>
</thead>
<tbody>
<tr>
<td>C3ASPLA</td>
<td>.68965</td>
</tr>
<tr>
<td>IBMIS</td>
<td>.68571</td>
</tr>
<tr>
<td>M1UNIT</td>
<td>.62768</td>
</tr>
<tr>
<td>M8ATTUD</td>
<td>.58286</td>
</tr>
<tr>
<td>R5HCFLRO</td>
<td>.57547</td>
</tr>
<tr>
<td>R5LACIN</td>
<td>.56183</td>
</tr>
</tbody>
</table>

**Final Statistics:**

<table>
<thead>
<tr>
<th>Variable</th>
<th>Communality</th>
<th>Factor</th>
<th>Eigenvalue</th>
<th>% of Variation</th>
<th>Cumulative %</th>
</tr>
</thead>
<tbody>
<tr>
<td>C3ASPLA</td>
<td>.47561 *</td>
<td>1</td>
<td>2.32635</td>
<td>38.8</td>
<td>38.8</td>
</tr>
<tr>
<td>IBMIS</td>
<td>.39398 *</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>M1UNIT</td>
<td>.47020 *</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>M8ATTUD</td>
<td>.33117 *</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>R5HCFLRO</td>
<td>.33972 *</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>R5LACIN</td>
<td>.31565 *</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Skipping rotation 1 for extraction 1 in analysis 1
The Performance of Corporate Real Estate Asset Management in New Zealand

This analysis with six variables shows a much tidier result, with only one factor extracted and the contribution from all variables quite even. The one factor accounted for 39% of the variation.

In light of the above result, the earlier lack of expected correlation with other variables, and the characteristics of the response distribution as shown in the descriptive statistics, it was decided that in a New Zealand context reporting level was a factor or dimension of performance of relatively minor significance in the assessment of the performance level of CREAM.

As a result Hypothesis (iii) was rejected and a model of CREAM performance including the following six variables adopted.

1 C3A  Existence of a strategic plan for corporate real estate
2 M1  Existence of a separate corporate real estate unit
3 I1B  High performing corporate real estate management information system
4 R5H  Contribution of cash flow from corporate real estate assets
5 M8A  Corporate real estate considered important to the organization
6 R5L  Accounting information available on individual properties

Inputting these variables into principal components factor analysis applied to the 193 survey responses resulted in a single factor score representing overall CREAM performance being associated with each of the respondent organizations. This measure of performance in turn facilitated the analysis reported in the following two sections (7.3 and 7.4) of this chapter which addressed Research Questions 4 and 5.
7.3 Research Question 4 - Is There a Relationship between Corporate Real Estate Asset Management Performance and “Corporate Real Estate Stage of Development”.

In order to investigate this issue it was necessary to first determine if there was a high correlation between the new measure of CREAM performance and the stage of corporate real estate development of the organizations surveyed. This resulted in the following hypothesis:

**HYPOTHESIS**

*There is no relationship between Corporate Real Estate Asset Management Performance and “Corporate Real Estate Stage of Development” as defined by Joroff, Louargand, Lambert and Becker (1993).*

A high correlation could mean stage of development was a contributing factor towards CREAM performance or an alternative measure of CREAM performance. In such a case further research would be warranted to determine the exact nature of the relationship.

If no strong correlation between corporate real estate stage of development and CREAM performance was found, then it could be concluded that they were essentially different measures. In such a case a combination of the identified stage of development with the new CREAM performance measure may be preferable when examining a particular organization.

The measure of CREAM performance for each organization surveyed was determined using factor analysis as detailed in section 7.2.3. The corporate real estate stage of development was identified by responses to ten different questions derived from the work of Joroff, Louargand, Lambert and Becker (1993) as follows:
As a check on the consistency of response, Spearman Correlation coefficients were calculated for all possible combinations of these ten “stage of development” questions following a similar rationale to that applied earlier to the “dimensions of performance” questions.

The results of this analysis are shown in Table 7.6.

<table>
<thead>
<tr>
<th>p values</th>
<th>O6</th>
<th>M5</th>
<th>M7</th>
<th>M8d</th>
<th>M8f</th>
<th>M8h</th>
<th>R5a</th>
<th>R5d</th>
<th>R5g</th>
</tr>
</thead>
<tbody>
<tr>
<td>O6</td>
<td>#</td>
<td>0.778</td>
<td>0.891</td>
<td>0.859</td>
<td>0.238</td>
<td>0.221</td>
<td>0.857</td>
<td>0.432</td>
<td>0.014</td>
</tr>
<tr>
<td>M5</td>
<td>0.778</td>
<td>#</td>
<td>0.851</td>
<td>0.850</td>
<td>0.575</td>
<td>0.866</td>
<td>0.920</td>
<td>0.635</td>
<td>0.585</td>
</tr>
<tr>
<td>M7</td>
<td>0.891</td>
<td>0.851</td>
<td>#</td>
<td>0.357</td>
<td>0.001</td>
<td>0.028</td>
<td>0.028</td>
<td>0.036</td>
<td>0.007</td>
</tr>
<tr>
<td>M8d</td>
<td>0.859</td>
<td>0.850</td>
<td>0.357</td>
<td>#</td>
<td>0.526</td>
<td>0.050</td>
<td>0.050</td>
<td>0.655</td>
<td>0.007</td>
</tr>
<tr>
<td>M8f</td>
<td>0.238</td>
<td>0.575</td>
<td>0.001</td>
<td>0.526</td>
<td>#</td>
<td>0.026</td>
<td>0.026</td>
<td>0.038</td>
<td>0.054</td>
</tr>
<tr>
<td>M8h</td>
<td>0.221</td>
<td>0.866</td>
<td>0.028</td>
<td>0.050</td>
<td>0.026</td>
<td>#</td>
<td>0.026</td>
<td>0.076</td>
<td>0.007</td>
</tr>
<tr>
<td>R5a</td>
<td>0.857</td>
<td>0.920</td>
<td>0.754</td>
<td>0.115</td>
<td>0.191</td>
<td>0.001</td>
<td>#</td>
<td>0.001</td>
<td>0.000</td>
</tr>
<tr>
<td>R5d</td>
<td>0.432</td>
<td>0.635</td>
<td>0.975</td>
<td>0.036</td>
<td>0.655</td>
<td>0.038</td>
<td>0.076</td>
<td>#</td>
<td>0.000</td>
</tr>
<tr>
<td>R5e</td>
<td>0.014</td>
<td>0.585</td>
<td>0.545</td>
<td>0.134</td>
<td>0.042</td>
<td>0.001</td>
<td>0.000</td>
<td>0.000</td>
<td>#</td>
</tr>
<tr>
<td>R5g</td>
<td>0.094</td>
<td>0.847</td>
<td>0.007</td>
<td>0.007</td>
<td>0.054</td>
<td>0.000</td>
<td>0.000</td>
<td>0.004</td>
<td>0.000</td>
</tr>
</tbody>
</table>

Cells highlighted show relationships significant at the 5% level
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It was anticipated that high correlations amongst all the stage of development variables would result, as organizations at the same stage of development should have a consistent pattern of response across these questions. This in turn would support the application of factor analysis to determine a combined measure of stage of development.

Only 38% of the 45 possible combinations showed a correlation at the 5% level or above, with a further 6.7% showing a correlation at the 10% level. A possible explanation for this may be that relatively few organizations in New Zealand are operating at the higher stages of development, leading to insufficient differentiation within the sample.

Discussions with Sandra Lambert, one of the authors of the CRE 2000 study, resulted in a suggestion that the five stage development model could usefully be “compressed” to a three stage model, which may provide a clearer differentiation between stages.

This was carried out by stage of development questions being re-coded into three categories reflecting,

1. Taskmasters/Controllers
2. Dealmakers/Entrepreneurs and

The statistical tests were run again but no significant improvements in correlations were observed. This suggests that respondents to the survey were inconsistent in their answers to the questions relating to stage of development, or alternatively, the questions were poorly structured promoting such inconsistency.

In light of these results it was considered impractical to try and derive a combined measure of stage of development using factor analysis as carried out above for CREAM performance. Instead, the derived performance measure was tested for correlation with each of the individual questions dealing with stage of development.

The results for these tests are shown below.
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<table>
<thead>
<tr>
<th>Question number and topic</th>
<th>Correlation with CREAM performance</th>
<th>r value</th>
<th>p value</th>
</tr>
</thead>
<tbody>
<tr>
<td>O6 Apportionment of CRE costs</td>
<td></td>
<td>0.14</td>
<td>0.132</td>
</tr>
<tr>
<td>M5 Space supply process</td>
<td></td>
<td>-0.06</td>
<td>0.571</td>
</tr>
<tr>
<td>M7 Role of CREAM in organization</td>
<td></td>
<td>0.31</td>
<td>&lt;0.000</td>
</tr>
<tr>
<td>M8d Existence of standardized rules for CRE</td>
<td></td>
<td>-0.21</td>
<td>0.008</td>
</tr>
<tr>
<td>M8f Teams, alliances and joint ventures formed</td>
<td></td>
<td>-0.17</td>
<td>0.026</td>
</tr>
<tr>
<td>M8h Risk reduced via CREAM</td>
<td></td>
<td>-0.27</td>
<td>0.001</td>
</tr>
<tr>
<td>R5a Impact of a CRE project on balance sheet</td>
<td></td>
<td>0.34</td>
<td>&lt;0.000</td>
</tr>
<tr>
<td>R5d Cost of accommodation per occupier</td>
<td></td>
<td>0.08</td>
<td>0.334</td>
</tr>
<tr>
<td>R5e Benchmarking against industry standards</td>
<td></td>
<td>0.33</td>
<td>&lt;0.000</td>
</tr>
<tr>
<td>R5g Using CRE for strategic advantage</td>
<td></td>
<td>0.44</td>
<td>&lt;0.000</td>
</tr>
</tbody>
</table>

Of the three questions relating to stage of development that are not significantly correlated to the CREAM performance measure, two (O6 and M5) are the same questions that were not correlated to most of the other stage of development questions. This lends further weight to the proposition that a problem may exist with these two stage of development questions. If these questions are ignored, then a consistent pattern exists showing a relationship between corporate real estate stage of development and the combined CREAM performance measure derived in section 7.2.3 of this chapter.

Thus, the hypothesis can be rejected in that there appears to be some relationship between corporate real estate stage of development and CREAM performance.

It is beyond the scope of this study to determine the exact nature of this relationship (for example, does a higher stage of development lead to a higher level of performance, or are both essentially a measure of the same phenomenon), but this would be a useful avenue for further research.
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7.4 Research Question 5 - Are Particular Organizational Factors Associated with High Performance Corporate Real Estate Asset Management?

The final hypothesis to be tested was as follows:

**HYPOTHESIS**

*No individual organizational factors can be identified that are significantly correlated with high levels of performance in respect of Corporate Real Estate Asset Management.*

The responses to all of the questions in the survey that could be quantified, ranked or categorized were tested for statistical significance against the CREAM performance measure derived by factor analysis in section 7.2.3 of this chapter. The only exclusions were questions that were variables in the CREAM performance model.

The tests used and results obtained are shown in Tables 7.7 to 7.20 below, along with comments on the findings. Significant correlations are highlighted.

### Table 7.7 Organizational Characteristics and CREAM Performance

<table>
<thead>
<tr>
<th>Question Number</th>
<th>Test used</th>
<th>R value</th>
<th>p value</th>
</tr>
</thead>
<tbody>
<tr>
<td>O1 Org. Ownership Structure</td>
<td>One way ANOVA</td>
<td>-</td>
<td>0.483</td>
</tr>
<tr>
<td>O2 Org. Core Business</td>
<td>One way ANOVA</td>
<td>-</td>
<td>0.471</td>
</tr>
<tr>
<td>O3 Org. Staff Numbers</td>
<td>Spearman Correlation Coefficients</td>
<td>0.21</td>
<td>0.007</td>
</tr>
<tr>
<td>O4 Org. Restructuring</td>
<td>Spearman Correlation Coefficients</td>
<td>0.13</td>
<td>0.095</td>
</tr>
<tr>
<td>O5 Org. Life Cycle</td>
<td>Spearman Correlation Coefficients</td>
<td>-0.05</td>
<td>0.519</td>
</tr>
<tr>
<td>O6 CRE Cost Apportionment</td>
<td>Spearman Correlation Coefficients</td>
<td>0.14</td>
<td>0.136</td>
</tr>
</tbody>
</table>

The *ownership structure, core business* and *life cycle* position of the organization were found to have no significant relationship to CREAM performance in terms of the model developed in section 7.2. Similarly, the *method by which corporate real estate costs were apportioned*, (which was one of the ways the stage of development was determined), exhibited no statistically significant relationship.
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However, *size of the organization* in terms of total number of employees was highly significant in explaining a high level of CREAM performance.

*Organizational restructuring* was found to be significant at the 10% level but not at the 5% level. As restructuring was anticipated to be more significant, a further test was carried out in which the major restructuring and minor restructuring categories were combined. The reasoning was that there might not be a clear enough distinction between these categories in the minds of the respondents compared with the "not at all" restructuring response.

However, using the t test for independent samples, as the responses to the question were now binary, resulted in no significant association. This may be due to the very small numbers within the sample that had not been restructured at all.

**Table 7.8 Corporate Real Estate Unit and CREAM Performance**

<table>
<thead>
<tr>
<th>Question Number</th>
<th>Test used</th>
<th>r value</th>
<th>p value</th>
</tr>
</thead>
<tbody>
<tr>
<td>M2 No. of CRE Staff</td>
<td>Pearson Correlation coefficients</td>
<td>0.11</td>
<td>0.271</td>
</tr>
<tr>
<td>M3 CRE Unit Restructuring</td>
<td>Spearman Correlation Coefficients</td>
<td>0.10</td>
<td>0.295</td>
</tr>
<tr>
<td>M4 Changes in CRE Staff Nos</td>
<td>Spearman Correlation Coefficients</td>
<td>-0.02</td>
<td>0.847</td>
</tr>
<tr>
<td>M5 CRE Provision Process</td>
<td>Spearman Correlation Coefficients</td>
<td>-0.57</td>
<td>0.571</td>
</tr>
</tbody>
</table>

While the *number of staff* and *organizational restructuring* for the organization as a whole were significantly related to CREAM performance (as discussed above), the *number of corporate real estate staff* and *restructuring of the corporate real estate unit* itself were not significant.

Question M5 dealt with the process by which additional corporate real estate assets would be provided to the organization, and was another question intended to indicate the corporate real estate stage of development. As for question O5, and against expectations, responses to this question were not significant in explaining enhanced CREAM performance.
Table 7.9 Decision-Making Techniques and CREAM Performance
(Spearman Correlation Coefficients used for all tests)

<table>
<thead>
<tr>
<th>Question Number</th>
<th>r value</th>
<th>p value</th>
</tr>
</thead>
<tbody>
<tr>
<td>M6a Accounting rate of return/payback period</td>
<td>0.25</td>
<td>0.003</td>
</tr>
<tr>
<td>M6b Discounted cash flow techniques (IRR, NPV etc)</td>
<td>0.31</td>
<td>&lt;0.000</td>
</tr>
<tr>
<td>M6c Consideration of risk diversification</td>
<td>0.43</td>
<td>&lt;0.000</td>
</tr>
<tr>
<td>M6d Relationship to market value/rental</td>
<td>0.30</td>
<td>&lt;0.000</td>
</tr>
<tr>
<td>M6e Sale and leaseback analysis</td>
<td>0.21</td>
<td>0.016</td>
</tr>
<tr>
<td>M6f Consideration of non financial factors</td>
<td>0.16</td>
<td>0.053</td>
</tr>
<tr>
<td>M6g Independent property management consultants</td>
<td>0.07</td>
<td>0.414</td>
</tr>
<tr>
<td>M6 Total (combined variable)</td>
<td>0.37</td>
<td>&lt;0.000</td>
</tr>
</tbody>
</table>

The above eight questions all related to techniques that are used to assist in corporate real estate related decision-making. Originally it was anticipated that these would be factors in the CREAM performance model, but for the reasons discussed in section 7.2.1 they were substituted in the model by question R51 – Accounting information available on individual properties. As would be expected, there is still a close relationship between the techniques used for corporate real estate decision making and CREAM performance, as evidenced by the significant or highly significant statistical results for all but two questions.

One of these, M6f - consideration of non-financial factors, is very close to being significant with a p value of 0.053. The other question M6g - use of independent property management consultants was not expected to be significant for the reasons discussed in section 7.2.1 of this chapter.

Question M7 considered the role of corporate real estate management in the respondent organizations and was again intended to indicate an organization's stage of development in terms of the Joroff, et al (1993). The results are shown in Table 7.10 and in this instance the responses were found to be highly correlated to the CREAM performance model.
Table 7.10 Management Issues and CREAM Performance
(Spearman Correlation Coefficients used for all tests)

<table>
<thead>
<tr>
<th>Question Number</th>
<th>r value</th>
<th>p value</th>
</tr>
</thead>
<tbody>
<tr>
<td>M7 Role of CRE</td>
<td>0.31</td>
<td>&lt;0.000</td>
</tr>
<tr>
<td>M8b Excessive Costs/Reporting</td>
<td>0.09</td>
<td>0.266</td>
</tr>
<tr>
<td>M8c CRE Provides Solutions</td>
<td>-0.37</td>
<td>&lt;0.000</td>
</tr>
<tr>
<td>M8d Standardised CRE Rules</td>
<td>-0.21</td>
<td>0.008</td>
</tr>
<tr>
<td>M8e Recognise in RE Business</td>
<td>-0.19</td>
<td>0.015</td>
</tr>
<tr>
<td>M8f CRE Teams/Alliances Formed</td>
<td>-0.17</td>
<td>0.026</td>
</tr>
<tr>
<td>M8g CRE in Org. Needs Improvement</td>
<td>0.06</td>
<td>0.431</td>
</tr>
<tr>
<td>M8h CREAM Can Reduce Risk</td>
<td>-0.27</td>
<td>0.001</td>
</tr>
<tr>
<td>M8i Uncertain Org. Needs/CRE Markets</td>
<td>-0.15</td>
<td>0.061</td>
</tr>
<tr>
<td>M8j CRE Staff Exposed to Strategy</td>
<td>-0.30</td>
<td>&lt;0.000</td>
</tr>
<tr>
<td>M8k Insufficient Info/Methods for CREAM</td>
<td>0.14</td>
<td>0.067</td>
</tr>
<tr>
<td>M8l CRE Delegated Too Far Down</td>
<td>0.14</td>
<td>0.069</td>
</tr>
</tbody>
</table>

For questions M8b to M8l respondents were asked to select how strongly particular statements covering a range of issues applied to their organizations. Questions M8b, M8c and M8e addressed similar issues of management attitude towards CREAM, but with different wording and reversed response order. Management who regarded CREAM favourably and recognized they were effectively in the real estate business were significantly correlated with good CREAM performance.

The exposure to and understanding of overall organizational strategy by corporate real estate staff was found to be highly related to CREAM performance (M8j), whereas having sufficient information and evaluation methodology (M8k) and appropriate levels of delegation (M8l) were significant at the 10% level but not at the 5% level.

Similarly, organizations who recognized economic and space need uncertainty were correlated with CREAM performance at the 10% level.

Questions M8d, M8f and M8h again addressed issues related to an organizations stage of development, namely benchmarking, alliance formation and financial risk assessment, and all were found to be significantly correlated to the CREAM performance measure.
A question asking whether CREAM needs major improvement in the respondent’s organization was found to be unrelated to CREAM performance

Table 7.11 Individual Characteristics/Responsibilities of Respondents and CREAM Performance

(Spearman Correlation Coefficients used for all tests except R2, which used Pearsons)

<table>
<thead>
<tr>
<th>Question Number</th>
<th>r value</th>
<th>p value</th>
</tr>
</thead>
<tbody>
<tr>
<td>R2 Tenure in Position</td>
<td>0.14</td>
<td>0.075</td>
</tr>
<tr>
<td>R3 Formal CRE Qualifications</td>
<td>0.37</td>
<td>&lt;0.000</td>
</tr>
<tr>
<td>R5a Impact of major real estate project on the balance sheet</td>
<td>0.34</td>
<td>&lt;0.000</td>
</tr>
<tr>
<td>R5b Impact of major RE project on the public perception of organization</td>
<td>0.27</td>
<td>&lt;0.000</td>
</tr>
<tr>
<td>R5c Lease versus own and/or sale leaseback financial analysis</td>
<td>0.14</td>
<td>0.082</td>
</tr>
<tr>
<td>R5d Cost of accommodation per occupier</td>
<td>0.08</td>
<td>0.334</td>
</tr>
<tr>
<td>R5e Benchmarking against industry standards</td>
<td>0.33</td>
<td>&lt;0.000</td>
</tr>
<tr>
<td>R5f Reviewing core operations to ensure efficient use of RE assets</td>
<td>0.16</td>
<td>0.039</td>
</tr>
<tr>
<td>R5g Using real estate to gain strategic advantage for core business</td>
<td>0.44</td>
<td>&lt;0.000</td>
</tr>
<tr>
<td>R5i Maximization of tax advantages</td>
<td>0.09</td>
<td>0.250</td>
</tr>
<tr>
<td>R5j Holding assets for capital gain/inflation hedge</td>
<td>0.18</td>
<td>0.021</td>
</tr>
<tr>
<td>R5k Refinancing of real estate to raise capital for operations</td>
<td>0.10</td>
<td>0.201</td>
</tr>
</tbody>
</table>

The next set of questions covered issues concerning the individual answering the survey, rather than the organization as a whole. This was expected to be the Property Asset Manager (or equivalent), as this is the person to whom the survey was addressed.

While only a minority of respondents had formal qualifications relating to real estate management (Question R3 also see chapter 6.4.3), it was found that such qualifications were highly significant in explaining a high level of CREAM performance. Of less importance, but still significant at the 10% level was length of tenure in their current position (Question R2, chapter 6.4.2).

Respondents were then asked to rate the importance of various issues to a person holding their position in their organization. The correlations between their responses and the CREAM measure of performance are shown in Table 7.11.
The Performance of Corporate Real Estate Asset Management in New Zealand

The issues most highly correlated with CREAM performance were consideration of the impact of corporate real estate projects on the organization's balance sheet and public perception, using corporate real estate to gain strategic advantage and benchmarking against industry standards. Of lesser, but still significant importance, were holding property for capital gain or as an inflation hedge and ensuring efficient use of real estate assets. Lease/own financial analysis was of moderate significance, but cost of accommodation per employee, and maximization of tax advantages and refinancing of real estate to raise capital were not correlated with high levels of CREAM performance.

Table 7.12 Time Spent on Corporate Real Estate Functions and CREAM Performance
(Spearman Correlation Coefficients used for all tests)

<table>
<thead>
<tr>
<th>Question Number</th>
<th>r value</th>
<th>p value</th>
</tr>
</thead>
<tbody>
<tr>
<td>R6a preparation of capital budgets</td>
<td>0.24</td>
<td>0.002</td>
</tr>
<tr>
<td>R6b preparation of maintenance/operational budgets</td>
<td>0.08</td>
<td>0.307</td>
</tr>
<tr>
<td>R6c buying/selling real estate assets</td>
<td>0.47</td>
<td>&lt;0.000</td>
</tr>
<tr>
<td>R6d undertaking financial viability studies</td>
<td>0.35</td>
<td>&lt;0.000</td>
</tr>
<tr>
<td>R6e monitoring performance of existing assets</td>
<td>0.40</td>
<td>&lt;0.000</td>
</tr>
<tr>
<td>R6f planning/developing real estate strategy</td>
<td>0.59</td>
<td>&lt;0.000</td>
</tr>
<tr>
<td>R6g general administration</td>
<td>-0.03</td>
<td>0.685</td>
</tr>
<tr>
<td>R6h financial reporting</td>
<td>-0.01</td>
<td>0.905</td>
</tr>
<tr>
<td>R6i supervising engineering/construction</td>
<td>0.16</td>
<td>0.046</td>
</tr>
<tr>
<td>R6j lease negotiation/administration</td>
<td>0.32</td>
<td>&lt;0.000</td>
</tr>
<tr>
<td>R6k Building Act/ health and safety</td>
<td>0.14</td>
<td>0.068</td>
</tr>
<tr>
<td>R6l market analysis</td>
<td>0.35</td>
<td>&lt;0.000</td>
</tr>
<tr>
<td>R6m cost control</td>
<td>0.16</td>
<td>0.026</td>
</tr>
<tr>
<td>R6n maintenance supervision</td>
<td>0.11</td>
<td>0.163</td>
</tr>
<tr>
<td>R6o managing external service providers</td>
<td>0.06</td>
<td>0.047</td>
</tr>
</tbody>
</table>

As shown in Table 7.12 the most significant relationships exist between market analysis, undertaking viability studies, developing real estate strategy, buying and selling real estate assets, lease negotiation and administration, and monitoring CREAM performance. Of lesser but still significant importance are preparation of capital budgets, cost control, construction supervision and managing service providers. Health and safety issues are significant only at the 10%, level and maintenance/operational budgeting and
supervision, financial reporting and general administration are not correlated with high CREAM performance.

Table 7.13 Communication and CREAM Performance
(Spearman Correlation Coefficients used for all tests)

<table>
<thead>
<tr>
<th>Question Number</th>
<th>r value</th>
<th>p value</th>
</tr>
</thead>
<tbody>
<tr>
<td>C1 Level Away From CEO</td>
<td>0.11</td>
<td>0.157</td>
</tr>
<tr>
<td>C2a Frequency of Liaison With CEO</td>
<td>0.21</td>
<td>&lt;0.001</td>
</tr>
<tr>
<td>C2b Frequency of Liaison With CFO</td>
<td>-0.30</td>
<td>&lt;0.001</td>
</tr>
<tr>
<td>C2c Liaison Frequency with Core Unit Heads</td>
<td>-0.32</td>
<td>&lt;0.001</td>
</tr>
<tr>
<td>C2d Liaison Frequency with RE Professionals</td>
<td>0.48</td>
<td>&lt;0.001</td>
</tr>
<tr>
<td>C2e Liaison Frequency with Technicians</td>
<td>-0.01</td>
<td>0.946</td>
</tr>
<tr>
<td>C2f Liaison Frequency with Service Providers</td>
<td>0.01</td>
<td>0.888</td>
</tr>
<tr>
<td>C2g Liaison Frequency with Other Org. Units</td>
<td>-0.04</td>
<td>0.624</td>
</tr>
<tr>
<td>Report (combined variable)</td>
<td>0.19</td>
<td>&lt;0.019</td>
</tr>
<tr>
<td>C3b When Strategic CRE Plan Prepared</td>
<td>0.13</td>
<td>0.289</td>
</tr>
<tr>
<td>C3c How Often CRE Strategic Plan Reviewed</td>
<td>-0.13</td>
<td>0.291</td>
</tr>
<tr>
<td>C3d CRE Plan Integration with Core Business</td>
<td>0.34</td>
<td>&lt;0.001</td>
</tr>
</tbody>
</table>

Question C1 asks how many steps the Property Asset Manager is away from the CEO, and was originally intended to be part of the model of CREAM performance, but for the reasons discussed in section 7.2 was eventually dropped from the model. It is felt that these same reasons (small organizations, few levels, relatively high level corporate real estate reporting) may be behind the lack of correlation with the CREAM performance measure.

Questions C2a to C2g inclusive addressed the frequency of liaison between respondents and various other positions, both inside and outside the organization. Highly significant correlations were observed between frequent liaison with CFO’s and Core business unit heads and a high level of CREAM performance, but less expected were similarly high correlation’s between low frequency of contact with the CEO and Real estate professionals and a high level of CREAM performance. No significant correlations were observed between CREAM performance and liaison with technicians, service providers and staff in other units in the organization.
Similarly no significant correlations were evident between either Question C3b – *How long ago was the strategic CRE plan first prepared* and C3c – *How frequently the strategic CRE plan is reviewed* and CREAM performance.

Question C3d asked how well *the strategic real estate plan was integrated with core business operations* and, as was expected, this was highly correlated with the CREAM performance measure.

**Table 7.14 Corporate Real Estate Information Systems and CREAM Performance**  
(Spearman Correlation Coefficients used for all tests)

<table>
<thead>
<tr>
<th>Question Number</th>
<th>r value</th>
<th>p value</th>
</tr>
</thead>
<tbody>
<tr>
<td>I1a MIS system importance</td>
<td>0.49</td>
<td>&lt;0.000</td>
</tr>
<tr>
<td>I12a Current use of property</td>
<td>0.31</td>
<td>0.001</td>
</tr>
<tr>
<td>I12b Physical attributes - i.e. size, dimensions, age etc</td>
<td>0.15</td>
<td>0.105</td>
</tr>
<tr>
<td>I12c Legal matters including zoning, tenure etc</td>
<td>0.10</td>
<td>0.300</td>
</tr>
<tr>
<td>I12d Lease details if applicable</td>
<td>0.20</td>
<td>0.026</td>
</tr>
<tr>
<td>I12e Purchase cost</td>
<td>0.10</td>
<td>0.303</td>
</tr>
<tr>
<td>I12f Current market value</td>
<td>0.24</td>
<td>0.014</td>
</tr>
<tr>
<td>I12g Operating/maintenance costs</td>
<td>0.07</td>
<td>0.456</td>
</tr>
<tr>
<td>I12h Maintenance programme</td>
<td>0.08</td>
<td>0.444</td>
</tr>
<tr>
<td>I12i No. of people working within specific buildings</td>
<td>0.02</td>
<td>0.825</td>
</tr>
<tr>
<td>I12j Usefulness in assisting in strategic decision-making</td>
<td>0.33</td>
<td>0.001</td>
</tr>
<tr>
<td>I12k Usefulness in identifying non-performing properties</td>
<td>0.33</td>
<td>&lt;0.000</td>
</tr>
<tr>
<td>I12l Total (combined variable)</td>
<td>0.20</td>
<td>0.033</td>
</tr>
</tbody>
</table>

As discussed in section 7.2.1 the responses to most of the MIS questions were highly correlated with each other. However, it was still considered worthwhile to examine which aspects of corporate real estate information systems were rated as having a high level of performance in those organizations who also had a high score in the overall CREAM performance model.

The highest correlations with overall CREAM performance were found for *usefulness in identifying non performing properties* and *assisting strategic decision making*, and showing details on *current use of property, current market value* and *leases*. In contrast the lowest correlations were for showing the *number of people working in buildings, operating and maintenance costs, purchase cost, legal details and physical attributes.*
Outsourcing

In response to question S1 it was found, using t-tests for independent samples, that having an outsourcing strategy was significant in relation to CREAM performance, but that whether or not this strategy was in writing was not significant.

Question S2 identified those organizations making increasing use of outsourcing, and this was found, using Spearman correlation coefficients, to be significantly associated with CREAM performance with an r value of 0.22 and a p value of 0.005.

Table 7.15 Functions Outsourced and CREAM Performance
(Spearman Correlation Coefficients used for all tests)

<table>
<thead>
<tr>
<th>Question Number</th>
<th>r value</th>
<th>p value</th>
</tr>
</thead>
<tbody>
<tr>
<td>S3a Real Estate Strategic Planning</td>
<td>0.17</td>
<td>0.037</td>
</tr>
<tr>
<td>S3b Feasibility Study/Market Analysis</td>
<td>0.23</td>
<td>0.005</td>
</tr>
<tr>
<td>S3c Real Estate Valuations</td>
<td>0.28</td>
<td>&lt;0.001</td>
</tr>
<tr>
<td>S3d Selection of Sites/Premises</td>
<td>0.01</td>
<td>0.925</td>
</tr>
<tr>
<td>S3e Procurement of Sites/Premises</td>
<td>0.05</td>
<td>0.510</td>
</tr>
<tr>
<td>S3f Space Layout/Planning</td>
<td>-0.02</td>
<td>0.796</td>
</tr>
<tr>
<td>S3g Building Design</td>
<td>0.14</td>
<td>0.072</td>
</tr>
<tr>
<td>S3h Construction/Fitout Management</td>
<td>-0.00</td>
<td>0.982</td>
</tr>
<tr>
<td>S3i Property/Lease Administration</td>
<td>0.00</td>
<td>0.981</td>
</tr>
<tr>
<td>S3j Facilities Management/Maintenance</td>
<td>0.10</td>
<td>0.227</td>
</tr>
<tr>
<td>S3k Building Act/Health &amp; Safety</td>
<td>0.23</td>
<td>0.003</td>
</tr>
<tr>
<td>S3l RM Act/Town Planning Issues</td>
<td>0.20</td>
<td>0.012</td>
</tr>
<tr>
<td>S3m Surplus Property/Lease Disposal</td>
<td>0.01</td>
<td>0.940</td>
</tr>
</tbody>
</table>

Table 7.15 presents the results for correlations between the real estate functions that are most frequently outsourced and CREAM performance. High levels of significance for positive correlations were observed for outsourcing valuations, Building Act/Health and Safety and Resource Management Act compliance, and feasibility studies/market analysis.

Less expected was the less significant, but still positive correlation between performance and the outsourcing of real estate strategic planning. This runs contrary to most published research and may be due to a number of small organizations in the sample.
having no internal real estate expertise at all, and therefore CREAM performance was increased by outsourcing at this level.

The next question, S4, also resulted in significant results using t tests for independent means. *Outsourcing contracts for terms of three years or longer* was more likely to be associated with organizations exhibiting a high level of CREAM performance.

Question S5 examined associations between the reasons organizations outsource real estate services and CREAM performance. Using Spearman Correlation Coefficients, only *to obtain a more independent service* was found to be significant, with an \( r \) value of 0.18 and a \( p \) value of 0.036.

Questions S7, S8 and S9 all addressed various characteristics of real estate service providers and their relative influence on the selection process employed by surveyed organizations. Spearman Correlation Coefficients were used for all tests.

In terms of service provider organizational characteristics, question S7 found that *relevant past experience* (\( r = 0.31, p < 0.000 \)), *overall chemistry* (\( r = 0.23, p = 0.004 \)), *an existing relationship with the service provider* (\( r = 0.19, p = 0.017 \)) and *project methodology* (\( r = 0.16, p = 0.046 \)) were significantly correlated with high levels of performance.

In terms of individual skills, question S8 found the only factors significantly associated with CREAM performance were *investment analysis* (\( r = 0.17, p = 0.037 \)) and *market analysis* (\( r = 0.19, p = 0.022 \)) skills.

For personal attributes, (Question S9), a larger number of significant factors were identified, namely: *positive attitude/commitment* (\( r = 0.19, p = 0.017 \)), *ability to work in teams* (\( r = 0.19, p = 0.019 \)), *sound judgement* (\( r = 0.17, p = 0.029 \)) and *overall professionalism* (\( r = 0.15, p = 0.049 \)).

The final set of outsourcing questions analyzed dealt with identifying those factors of most importance to successful outsourcing in high performing organizations. The results are presented in Table 7.16 and identify: *effective performance measurement tools, well*
developed service level agreements, communication/interface between the parties, well planned transition of services, retention of ultimate control and quality personnel as being significant.

Table 7.16 Successful Outsourcing Factors and CREAM Performance
(Spearman Correlation Coefficients used for all tests)

<table>
<thead>
<tr>
<th>Question Number</th>
<th>r value</th>
<th>p value</th>
</tr>
</thead>
<tbody>
<tr>
<td>S10a</td>
<td>0.08</td>
<td>0.323</td>
</tr>
<tr>
<td>S10b</td>
<td>0.05</td>
<td>0.549</td>
</tr>
<tr>
<td>S10c</td>
<td>0.14</td>
<td>0.076</td>
</tr>
<tr>
<td>S10d</td>
<td>0.12</td>
<td>0.134</td>
</tr>
<tr>
<td>S10e</td>
<td>0.18</td>
<td>0.024</td>
</tr>
<tr>
<td>S10f</td>
<td>0.17</td>
<td>0.038</td>
</tr>
<tr>
<td>S10g</td>
<td>0.14</td>
<td>0.090</td>
</tr>
<tr>
<td>S10h</td>
<td>0.17</td>
<td>0.038</td>
</tr>
<tr>
<td>S10i</td>
<td>0.15</td>
<td>0.063</td>
</tr>
<tr>
<td>S10j</td>
<td>0.25</td>
<td>0.002</td>
</tr>
<tr>
<td>S10k</td>
<td>0.09</td>
<td>0.258</td>
</tr>
<tr>
<td>S10l</td>
<td>0.15</td>
<td>0.058</td>
</tr>
<tr>
<td>S10m</td>
<td>0.19</td>
<td>0.019</td>
</tr>
<tr>
<td>S10n</td>
<td>0.18</td>
<td>0.025</td>
</tr>
</tbody>
</table>

Portfolio Characteristics

The survey concluded with a series of questions numbered P1 to P6 that examined aspects of the organizations property portfolios. Table 7.17 below lists the results of tests for significant relationships between these portfolio variables and the overall CREAM performance measure developed in section 7.2.

Table 7.17 Portfolio Characteristics and CREAM Performance

<table>
<thead>
<tr>
<th>Question Number</th>
<th>Test used</th>
<th>r value</th>
<th>p value</th>
</tr>
</thead>
<tbody>
<tr>
<td>P1 No. of Freehold Properties</td>
<td>Spearman Correlation Coefficients</td>
<td>0.37</td>
<td>&lt;0.000</td>
</tr>
<tr>
<td>P2 Value of Freehold Properties</td>
<td>Spearman Correlation Coefficients</td>
<td>0.52</td>
<td>&lt;0.000</td>
</tr>
<tr>
<td>P3 No. of Leasehold Properties</td>
<td>Spearman Correlation Coefficients</td>
<td>0.28</td>
<td>&lt;0.000</td>
</tr>
<tr>
<td>P4 Annual Lease Rental Costs</td>
<td>Pearson Correlation Coefficients</td>
<td>0.22</td>
<td>0.032</td>
</tr>
<tr>
<td>P5 Preference to Own or Lease CRE</td>
<td>Spearman Correlation Coefficients</td>
<td>0.11</td>
<td>0.179</td>
</tr>
<tr>
<td>P6 Valuation Method Used</td>
<td>one way ANOVA</td>
<td>-</td>
<td>0.078</td>
</tr>
</tbody>
</table>
It is notable that almost all of these portfolio variables are significant in explaining higher CREAM performance. It appears that as portfolios get larger and more valuable a higher level of CREAM performance can be expected. However, it does not seem to matter if an organization has a freehold or leasehold portfolio, or whether they have a preference for either type of tenure.

It also was found that recording real estate at current market value is weakly associated with higher levels of CREAM performance.

It is clear from the above results that a large number of organizational factors are significantly correlated with CREAM performance. As a result the hypothesis for Research Question 5 is rejected.

7.5 Conclusion

Respondents were consistent in their responses to multiple questions regarding the same CREAM performance factor, and the expected correlations between multiple performance factors within individual organizations also generally occurred. Any exceptions were investigated further and possible explanations found. The Factor Analysis results were also satisfactory, with six CREAM performance variables adequately represented by a single factor. Research Question 4 presented some analysis problems, but there was evidence some form of relationship exists between CREAM performance and corporate real estate stage of development. The final correlational analysis identified a number of organizational characteristics significantly associated with high levels of CREAM performance. All the above results, plus those from chapter 6, are discussed in more detail in chapter 8.
Chapter 8

DISCUSSION

8.1 Introduction

In this chapter general findings relating to the current practice and existing situation in respect of CREAM across a wide range of organizations in New Zealand are first discussed. This is followed by a comparison of the recent results with those of Teoh (1992).

The discussion then moves on to address the development and testing of a model of CREAM performance, investigation of the relationship between CREAM performance and corporate real estate stage of development, and finally what organizational characteristics are associated with a high level of CREAM performance.

8.2 The Current State of CREAM in New Zealand

8.2.1 Organizational and Portfolio Characteristics

As can be seen from figures 6.1 and 6.2 and table 6.1 in chapter 6, a much wider range of organizational types were surveyed compared with many other studies. While this diversity may help explain some of the inconsistencies that arose in the research, a more significant finding is the high degree of correlation on many aspects of CREAM amongst organizations with very different structures and core areas of activity. This reflects the findings of Gibson (1991), Lundstrom (1991) and Simons (1993). It is also significant that the findings from prior research carried out predominantly in the highly industrialized societies of the USA and UK are also reflected in a New Zealand context - an economy dominated by the rural and tourism sectors.
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These findings mean that the measures of performance developed in this study, and the recommended improvements in CREAM that arise from use of these performance measures, are likely to have wide applicability regardless of the business sector or country.

Most of the organizations responding were relatively large in New Zealand terms. To some extent this was to be expected, as only organizations with relatively large property holdings were included in the sample. It could be that some response bias is reflected in these results, as there was an under representative response rate from private companies. These are likely to have fewer staff and smaller property portfolios than government departments, state owned enterprises, territorial local authorities and public companies. Smaller organizations may also be less focussed or aware of CREAM issues and also short of human resources, and therefore less likely to take the time to answer a comprehensive corporate real estate survey.

A useful future exercise would be to focus on CREAM in these small organizations to see if the issues faced in respect of CREAM are the same. This is an area that has not been previously researched.

The property portfolios held by the surveyed organizations tended towards one of two extremes. Either they had few freehold properties or they owned over 100 properties. A similar bipolar response was reflected in the question on preference to own or lease. This may mean that very different CREAM strategies are appropriate to the two groups depending on their tenure preference. This was already found to be the case in an earlier outsourcing study (McDonagh and Hayward 2000) where characteristics desired in service providers were significantly different between groups favouring different tenure forms.

It also appears that as the number of properties increases, it is more likely they will be owned as freehold estate. Few owned portfolios were worth less than $1 million, with the most common category being the largest – over $50 million.
Many portfolio characteristics will be reflective of the ownership category or core business of the respondents. For example TLA's and government departments are highly likely to have high value freehold portfolios. This is probably a function of the nature of their core operations, the capital budgeting process applying to property acquisitions and their non-taxable status reducing some of the advantages of leasing. In contrast, smaller private companies are likely to have small leasehold portfolios, due to scarcity of capital.

8.2.2 Organizational Restructuring

Almost all (92%) organizations had undergone some form of restructuring, but it became apparent that what constituted extensive or minor restructuring was not adequately defined in the survey. Such restructuring is symptomatic of New Zealand organizations over the last 15 years, and anecdotally, and in prior research, (Byrne 1994) a strong link has been put forward between major restructuring and the rise in importance of CREAM within an organization.

The rise of CREAM is often related to the breakdown of inhibiting political structures within organizations that occurs as a result of restructuring. Also, the factors leading to the necessity for restructuring often force an organization to carefully reconsider its core business activities and the infrastructure necessary to support them.

Unfortunately the problems with the definition of restructuring prevented clear answers being obtained on the relationship between organizational restructuring and CREAM performance, as will be discussed further later in this chapter.

The majority of organizations (63%) had a separate corporate real estate unit, and in a similar percentage of cases it comprised only one or two people. These units are very much smaller than those found in overseas organizations, but it was notable how the responses to most issues were very similar. Those few organizations with very large corporate real estate departments were TLA's or government departments, and it is likely they also used a wider definition of corporate real estate staff than other respondents, (for example including trade staff).
Restructuring of the corporate real estate unit itself was not as common as restructuring of the organization as a whole. While the existence of a separate unit reflected prior research and was associated with higher levels of CREAM performance, there was no significant relationship observed between restructuring of the corporate real estate unit and CREAM performance. This situation may be reflective of corporate real estate units coming into existence as a result of overall organizational restructuring, and therefore not requiring subsequent restructuring. It has also been reported that establishment of a corporate real estate unit is often a catalyst or prerequisite for overall organizational restructuring and the consequent increase in corporate real estate acquisition and disposal activity.

However, for some corporate real estate units changes have been significant. While the most common response regarding corporate real estate related employee numbers was that they stayed about the same, the next most significant category was that they decreased significantly. The latter is not likely to be related to any decrease in the importance of CREAM to organizations, but rather reflects the worldwide trend to increasingly outsource CREAM responsibilities. Outsourcing is an issue investigated in detail using the base data collected in this research, but is beyond the immediate focus of this study.

8.2.3 Characteristics and Responsibilities of Individual Respondents

Although a wide range of organizations were surveyed, the respondents fulfilling the CREAM role held an even wider range of titles making analysis difficult.

Property Manager, or some close variation, was the most common, but this only applied to 32%. This result indicates many organizations still lack a clearly identified position for a person fulfilling the CREAM role. An increasingly popular alternative is to outsource CREAM functions, but this brings its own set of problems including lack of familiarity with core operations, and conflicts of interest. The result is that corporate real estate may “fall between the cracks” of responsibility, or be carried out by someone without much expertise or enthusiasm.
The number of respondents who had held their current position for less than one year (14%), and/or had no property related qualifications (63%), reinforces this theory. This lack of both experience and education represents an area where there is potential for significant gains via continuing education programs and other initiatives. The relationship of qualifications and experience to CREAM performance is examined in more detail in section 8.6.

A more positive finding was that although respondents reported to superiors with a wide range of titles, the most common were CEO and CFO, and the balance were usually only one or two steps removed from the CEO. This is in contrast to much overseas research but, as discussed in chapter 7, is more likely to be related to the scale of organizations in New Zealand, rather than enhanced recognition of the importance of CREAM. It may however, mean that a change in CEO or CFO attitude to CREAM may have a rapid effect, as there is less organizational inertia to overcome. This may be an explanation of the rapid improvement in some aspects of CREAM over the last eight years.

8.2.4 Stage of Development and Performance

Quite a number of individual questions were asked relating to corporate real estate stage of development and CREAM performance factors, and these are discussed in terms of their correlation and contribution to the CREAM model of performance in section 8.4 below. However, some of the descriptive findings on these questions warrant comment in their own right.

How organizations apportion corporate real estate costs is a recurring theme in the literature, with a number of studies (see chapters 3 and 4) presenting conflicting results on whether a cost centre or profit centre approach is preferable. As shown in Figure 6.6, this research resulted in a bipolar response to the relevant question (O6). Most organizations either included corporate real estate costs as overhead or did not apportion them at all - or took the opposite approach and internally charged full market rents and operating expenses to business units. This result may help explain the conflicting results of earlier studies as their sampling may have meant they only considered one pole of the
distribution. Whether either approach is associated with increased measures of performance is examined in section 8.6.

Question M5 examined the way in which additional corporate real estate space would be supplied in organizations, which is seen as an indicator of stage of development. The most frequent response was one representing a “middle” stage of development, but 14% chose an answer corresponding with an advanced stage of development. A similar pattern of response was evident concerning the role of CREAM within the organizations surveyed, which has also been previously been put forward as an indicator of stage of development.

Decision-making techniques were dominated by consideration of the relationship to market value and non-financial factors, but discounted cash flow techniques were also popular. Sale/leaseback analysis was relatively rare, which is a concern as such an option is often particularly useful in a corporate real estate situation. It could be that this issue is only now “coming of age” in New Zealand, with a few key organizations actively pursuing this option, (for example “The Warehouse” - from an interview with the Property Director by the author in 1999). It will be interesting to re-visit this question in a few years to see if a significant change has taken place.

The majority of respondents felt they were reasonably well aware of the overall strategic direction of the organization and had the information, tools and organizational structure to do the job. There was, however, a significant minority who disagreed on these issues. A potential problem is that 27% of respondents still don’t consider themselves to be “in the real estate business”. This attitude has been found by a number of earlier studies (Veale 1989, Gale and Case 1989, Teoh 1992 and others) to be a significant impediment to improved CREAM performance.
8.3 Comparison with Earlier Research Findings of Teoh (1992)

8.3.1 Existence of a Separate Corporate Real Estate Unit

The similarity between Teoh (1992) and the current research in respect of the above issue is particularly remarkable considering the quite different samples, and could be interpreted as either showing no progress or alternatively that only about 60% of organizations need a separate corporate real estate unit in New Zealand. This is significantly less than the 86% of organizations found by Veale (1989) to have a separate corporate real estate unit, but again this may be reflective of the scale of organizations in New Zealand where corporate real estate is often the responsibility of a single individual, (often the CEO).

When Teoh’s survey was carried out it was found that nearly all companies with a separate corporate real estate unit had only established the unit in the previous two years. Although not asked a direct question on the topic this time, it was apparent from responses to questions M3 and M4 that corporate real estate units had been in existence for some time.

8.3.2 Title of Corporate Real Estate Unit Head

Questions on the title of the head of the corporate real estate unit were similar in both surveys. “Property manager” was the most popular choice, the seven percent reduction from Teoh’s findings most likely a reflection of the greater range of titles in the second survey rather than any reduction in the popularity of property manager as a title. In both surveys the second choices were also similar in that they indicated a finance/administration orientation.

This is somewhat of a concern in the New Zealand situation, where finance and administration positions are often cost focussed. In contrast, a strategic orientation has been found by this and prior research to be most important to CREAM performance and is likely to become even more critical in the future.
8.3.3 Corporate Real Estate Reporting Level

As mentioned in the literature review, corporate real estate unit reporting level has been identified as an important issue by earlier research and was also examined by Teoh (1992). Unfortunately she used position terminology unfamiliar in a New Zealand context (President and Senior/Executive Vice President) which may have compromised her results to some extent. Even so, she found 61% of corporate real estate units reported to positions identified as either of the above, which could be seen as equivalent to the more common titles of CEO or Deputy CEO in a New Zealand context.

In the current research, the number of levels away from the CEO (question C1) was used instead of position names. Again the results were similar to Teoh in that 79% of the organizations reported to either of the top two levels in the organization. However, as discussed in chapter 7.2.2 this was found to be more a reflection of organizational size than an indicator of CREAM performance.

8.3.4 Role of Real Estate in the Organization

Questions in respect of the above issue differed significantly between Teoh’s research and that presented here, but some useful comparisons can still be made. Teoh found that increased efficiency in the use of corporate real estate resources was the dominant motive for structuring the corporate real estate unit as a profit centre, followed by generating revenue for overall corporate needs and effective evaluation of individual property performance. In contrast, satisfying business unit needs was the dominant role in the recent survey, followed by efficiency, with earning revenue important for only a small percentage of organizations (6.7%). Again, the much wider range of organizations in the recent survey may be a factor here, and an interesting additional study would be to examine sub-groups within the total sample for differences in respect of this issue. It is suspected that the business organizations may have a higher degree of commonality with Teoh’s findings than the government department and not for profit organizations.
8.3.5 Corporate Real Estate Information Systems

This is one area where a clear improvement in the New Zealand situation is evident since the time of Teoh's research. She found that only 39% of respondents maintained a real estate inventory of any description, and only 7.3% had a separate management information system for corporate real estate. The most popular reasons given for such a situation were "not cost justifiable", "cannot convince top management" and "real estate functions or responsibilities too decentralized". Obviously, these factors have changed as now 78% of respondents reported having a separate corporate real estate MIS system, which is much more in line with overseas research. Respondents also now recognize that such a system is extremely important, but many are not happy with the performance of their existing systems.

This means that most organizations are now in a position to improve CREAM performance as one of the fundamental prerequisites is in place. It is also reflective of the stage of development process put forward by Joroff et al (1993), in that it is necessary to achieve a satisfactory level of performance at one stage of development before progress can be made at the next level.

8.3.6 Management of Corporate Real Estate

A number of issues under the above general heading, and identified in earlier research were examined by both Teoh (1992) and the recent survey.

For example, Teoh investigated management activities, but the questions asked were slightly different from the current research in that they asked for the relative importance of various activities, rather than the time spent on them. Even so, some interesting comparisons can be made.
Teoh found finance and budget analysis to be relatively unimportant, but in contrast both capital and operational budgeting were found to occupy reasonable amounts of the respondents' time in the recent survey, as shown in Figure 8.1. This may be a reflection of the number of public sector organizations in the recent survey that may be under tighter budgetary constraint and have fewer financing options.

Fig. 8.1 Budget Analysis
Research Findings Comparison

Again a future study could split out these categories and confirm or reject these propositions.
Viability studies were rated less important than finance and budget analysis by Teoh, and exhibited a similarly reduced time commitment in the current research (see Figure 8.2).

Construction supervision would be an activity expected to occupy a relatively small amount of time, given the intermittent occurrence of this activity in many organizations, and also be relatively lowly rated in terms of importance. This indeed was the case; with both Teoh’s and the current research showing a remarkably similar response pattern for this issue (see Figure 8.3).
A similarly highly correlated response was shown between the results for both surveys in respect of the importance of, and time spent on, market analysis (see Fig 8.4 below).

**Fig. 8.4 Market Analysis**
*Research Findings Compared*

8.3.7 Attitude Towards CREAM

Questions in the current research on attitude that are similar to those asked by Teoh include M8a, M8g, M8j, M8k and M8l (see Appendix A).

A marked change in attitude is revealed by the responses to question M8a - *Real Estate management is not considered important because your organization's core business is not real estate*. Teoh found the majority strongly agreeing with this statement whereas in this research the figure was only 12.5%.

In respect of *exposure to and a good understanding of overall organizational strategy* the figures showed limited improvement in two categories but a decrease in the percentage who were very positive. This may be related to the fact that Teoh directed her survey only at CEO’s, who would be expected to have a good understanding of overall strategy, whereas the recent survey targeted corporate real estate executives who are more likely to be less informed. The limited improvement may therefore be more positive than it first appears.
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A similar comment to that above in respect of management information systems also applies to this issue, in that being exposed to, and understanding overall corporate strategy is a fundamental prerequisite to improved CREAM performance.

A divided response was evident in the earlier research in respect of available information and methodologies for CREAM decision making. The situation seems have to improved since though, with the majority either mildly or strongly positive (54% total). This is likely to be closely related to the improvements in MIS systems, which are prerequisites for good decision-making processes. This is another relationship that could be investigated further in future research.

The appropriate level of delegation for CREAM decisions was also a question in common with Teoh and similar results were obtained with the majority disagreeing with the statement responsibility for real estate decisions are delegated too far down in your organization.

Teoh also asked for a rating of whether current organizational CREAM needed improvement. While the highest rating for the earlier research was a neutral response, the more recent results for the same question showed the majority of organizations were relatively happy with their existing CREAM performance.

This may mean that performance has actually improved – but not necessarily so as the respondents belief may not be in accord with reality. There is also a potential bias problem as the previous survey was of CEO's whereas the recent survey was of corporate real estate executives who are potentially reporting on their own performance.

8.3.8 Organizational Life Cycle

Life cycle stage of the organization was considered by a number of questions in the recent survey, and consistent results across the whole sample indicated organizations were generally in the mature stage of development, or did not consider themselves to be in a competitive market situation. This is in contrast with the earlier work of Teoh, but as
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only companies listed on the New Zealand stock exchange were considered, few of them would have fallen into the latter category. In contrast, this survey had a much wider spread, with most local authorities and charities being in a non-competitive situation, and many of the infrastructure industries such as electricity and port companies being in the mature stage of development. Because of the only relatively recent public listing of most of these businesses they would have not formed part of Teoh's sample.

This may have significant implications for the findings of this research as the focus of much recent CREAM research has been the market driven need for flexibility and efficiency. While these issues affect all organizations, they may be more critical in organizations operating in open markets and subject to competitive forces and be reflected in such factors as the choice to own or lease their corporate real estate assets. A future area for research may by to investigate in more depth the relationship between organizational lifecycle and CREAM.

8.3.9 Consideration of Research Question 2

As outlined in chapter 2, Research Question 2 resulted in the following hypothesis.

**HYPOTHESIS**

*There has been no significant change in attitudes towards, and the practice of, managing corporate real estate assets in New Zealand over the last seven years*

It can be seen from the detailed results in chapter 7 and the discussion above that this hypothesis must be rejected.

While the recent survey sample was much wider than that of Teoh (1992), and there were limited changes in respect of several issues, overall there has been a significant and ongoing improvement in both attitudes towards and the practice of managing corporate real estate assets in New Zealand. In particular there has been a substantial increase in the percentage of organizations with adequate corporate real estate MIS systems – a universally accepted pre-requisite for improved CREAM performance.
Less significant, but still positive, improvements in other aspects of CREAM such as involvement in strategic planning, availability of decision making information and methodology and appropriate organizational structure were also evident.

This means that for most organizations in New Zealand with large property portfolios the CREAM foundations are now in place. The next step is to further improve CREAM performance by identifying critical performance factors, embracing best practice and acquiring the knowledge and skills to advance to the higher stages of development.

8.4 The CREAM Performance Model

A model of CREAM performance based on the earlier work of Veale (1989) and Pittman and Parker (1989) was developed in this study as a necessary precursor for the investigation of other issues. A number of potential performance factors were considered and tested for correlation in chapter 7, and the critical variables finally decided upon included:

- Existence of a strategic plan for corporate real estate
- Existence of a separate corporate real estate unit
- High performing corporate real estate management information system
- Contribution of cash flow from corporate real estate assets
- Corporate real estate considered important to the organization
- Accounting information being available on individual properties

There was generally a high degree of consistency of response amongst organizations to the multiple questions addressing individual CREAM performance issues. This meant that responses from a single “best” question could be relied upon for inclusion in the model greatly simplifying its derivation and application. Also, the model arrived at neatly encapsulated most of the factors/dimensions of performance identified by earlier researchers. Any inconsistencies in response were investigated further, and feasible explanations for such results arrived at, as discussed in chapter 7.
In light of the above, Hypothesis (i) restated below was rejected.

**HYPOTHESIS (i)**

*Survey respondents are inconsistent in their responses to multiple survey questions addressing the same CREAM performance issues.*

The survey results were next input into the CREAM performance model in order to test Hypothesis (ii).

**HYPOTHESIS (ii)**

*No statistically significant correlation exists between any of the variables reflecting CREAM performance factors or dimensions of performance established by earlier research.*

Statistically significant correlations were observed amongst almost all of the individual performance variables as found in earlier studies. As a result Hypothesis (ii) was rejected.

This means that while no single variable can be said to definitively indicate an organization's CREAM performance, a small group of variables tend to occur together and provide a strong indication of performance. This lent further support to the concept of deriving from survey data for this group of variables a single composite performance factor reflective of the overall CREAM performance of each surveyed organization.

As a final step, factor analysis was then applied as detailed in chapter 7. This facilitated testing of Hypothesis (iii) below.

**HYPOTHESIS (iii)**

*No single factor measure can be derived that adequately represents the combination of multiple CREAM performance factors or dimensions of performance established by earlier research.*
Factor analysis was successful in extracting a single performance factor representing the combined impact of six of the seven factors or dimensions of CREAM performance established by earlier research. The single factor that presented analysis problems in this process was also found to generate problems in other forms of analysis, and an adequate explanation for this situation was arrived at.

As a result Hypothesis (iii) was rejected and Research Question 3 answered - in that a simple model of Corporate Real Estate Asset Management Performance had been developed.

Such a singular measure of CREAM performance has not previously been identified and is a significant contribution to knowledge, primarily in that it facilitates the investigation of many other CREAM issues that may impact on performance. Some of these issues are investigated in this study but it is anticipated that the methodology will also be applied in future research.

### 8.5 CREAM Stage of Development Vs CREAM Performance

During this study it became apparent that there may be a relationship between CREAM performance and the “stage of development of corporate real estate” as developed by Joroff et al (1993). As a result, tests were carried out to determine whether there was a difference between CREAM performance and “stage of development”, or whether in essence they were the same.

A number of questions in the survey addressed organizational stage of development but the descriptive results were confusing. There was consistency of response amongst individual respondents for some “stage of development” questions but not others.

Question O6 was one question out of step with a strongly bipolar response. Organizations tended to not apportion corporate real estate costs at all, or to completely apportion these
costs via market rents and full operating expenses. These represent opposite ends of the stage of development model.

In contrast, the space supply process (M5) and the role of CREAM (M7) both showed a response pattern that was more expected, with the majority of respondent organizations operating at the lower to mid levels of the stages of development model. Similarly, the responses to question M6, M8d, M8f and M8h favoured options most often associated with lower to middle stages of development.

Question R5 required importance ratings for various issues and again responses placed most organizations in the lower or middle stages of development.

For some issues, such as: lease vs. own analysis, cost of accommodation per occupier, benchmarking and utilizing real estate for strategic advantage, there were approximately even percentages of respondents rating the issues as “critically important” and “not important”, suggesting that these organizations have very different ways of operating.

The final question touching on stage of development was question R6. Few high ratings were given, indicating a wide spread of activities amongst the respondents, which is typical of CREAM positions. Some wide variations for individual activities occurred, again indicating that some respondents had a very different focus to their responsibilities.

Overall, the significant amounts of time spent on various budgeting and financial reporting activities, lease negotiation, performance monitoring, cost control and general administration indicated the majority of organizations are operating towards the middle levels of the stage of development model. The observed differences, especially in respect of strategic planning are likely to be associated with a small number of organizations operating at the higher stages of development.

Statistical analysis, as described in chapter 7.2, tends to confirm the inconsistency of response amongst stage of development related questions mentioned above. Only 38% of the possible combinations of questions on stage of development were significantly correlated using the initial analysis technique. Even after combining stage of
development responses into only three categories to try and increase response differentiation, there was only a minor improvement.

These results suggest that respondents to the survey were inconsistent in their responses. This could be due to a number of reasons including poorly worded questions, poor understanding of the concepts and terminology discussed in the questions by the respondents, or the stage of development model not being applicable to such a wide range of respondents and organization types.

In light of the inconsistency of response to the stage of development questions it was considered impractical to use factor analysis to derive a single measure of stage of development, as was carried out for CREAM performance. Instead correlations between individual questions indicating stage of development and the overall performance rating were calculated.

Of the ten stage of development questions tested, only three showed no significant correlation with the performance measure. Two of these questions (O6 and M5) were those also inconsistent with the other stage of development questions.

If it is assumed these inconsistencies represent problems with the relevant questions, then it is apparent that a relationship does exist between stage of development and CREAM performance. It is beyond the scope of this study to resolve the inconsistent responses to the stage of development questions and thereafter determine the exact nature of this relationship. This would be a useful topic for further research.

The results in chapter 7 and the above discussion reveal that the situation in respect of Research Question 4 – *Is there a relationship between CREAM performance and corporate real estate “stage of development”?* was less clear cut than the other research questions.

However, on balance it was decided to still reject the hypothesis as significant correlations between stage of development and CREAM performance existed for seven of the ten questions examined indicating that some form of relationship exists.
8.6 Organizational Factors Associated with High Performance CREAM

There appears to be no significant difference in CREAM performance between public sector and private sector organizations. Nor does there seem to be any significant difference between for-profit and not-for-profit organizations, or between particular categories of business as defined under standard industrial classification codes. While this may be contrary to popular belief, it does reflect the findings of earlier researchers such as Gibson (1991) Lundstrom (1991) and Simons (1993), who found the same CREAM issues affecting all organizations. The political dimension of the public sector was just an additional complicating factor.

This means that CREAM best practice principles, or other performance enhancing techniques, are likely to have similar beneficial effects across all types of organizations. Similarly, poor performance is unlikely to be defensible by claiming the organization is "different".

Less expected was the finding that there were no significant differences in performance between organizations at different stages of their development life cycle. It was anticipated that startup companies would have a poorer CREAM performance, due to not having the time to develop systems, expertise and experience in respect of corporate real estate issues, as well as being less cost focussed and in need of maximum flexibility, but this was not the case.

In fact there was weak indications of the opposite situation with some correlation between organizations that identified economic and space need uncertainty (typically startup companies) and high CREAM performance. It may be that organizations at this stage of evolution have a greater focus on strategic issues and therefore scored highly on this performance factor. Also, when in the startup phase, it may be easier to put in place appropriate CREAM organizational structures and information systems than overcoming the vested interests and inertia of longer established, mature organizations.
Size of the organization was found to be a very significant factor in CREAM performance. This may be related to the inability to retain specialized in-house corporate real estate expertise in smaller organizations for economic reasons, as there is evidence that when CREAM is allocated to non-specialist managers as only part of their responsibilities it tends to be neglected.

An increasingly popular alternative for small organizations is to outsource CREAM, but this can also bring performance problems due to lack of understanding of core business requirements by the service provider. This is particularly the case where the organization has specialist real estate requirements, or for security reasons the outsource service provider cannot be fully integrated into core business strategic planning.

It has been hypothesized in previous research (Byrne 1994) that organizational restructuring is associated with high levels of CREAM performance, but in this research the evidence for such an association was evident but not compelling. A significant relationship was found only at the 10% level, but as discussed in chapter 7.4.3, there were potential problems with the restructuring question in this survey and more specific research may reveal a stronger relationship.

As would be expected, those organizations making frequent use of advanced decision making techniques were highly correlated with high performance on the CREAM measure. The one part of question M6 showing no relationship was the use of outside consultants. This can be explained by the reasons for using such consultants being potentially very different. For example, one organization may be seeking peak CREAM performance by outsourcing specific non-core activities to experts, whereas another may be using “run of the mill” consultants because their CREAM is a shambles and they don’t know where to start.

The role of CREAM in an organization is one indicator of stage of development, but it is also highly correlated with performance. Those identifying with the statement “A separate business unit earning a return on the capital tied up in real estate assets by providing the space requirements of operating units in return for market related rents and operating expense” also rated highly on the measure of performance. This adds
another piece of evidence to the profit side of the "cost centre versus profit centre debate" referred to earlier in chapters 3 and 4.

The literature reviewed earlier, plus the case studies reviewed in chapter 4, almost universally emphasized the importance of exposure to and understanding of overall organizational strategy. This was borne out by this research, with very high correlation between a high level of CREAM performance and the following factors:

- exposure to overall strategy.
- using property for strategic advantage.
- significant time spent developing real estate strategy.
- a high degree of integration with core business strategy.
- frequent liaison with CFO's and core business unit heads.

The last listed factor in particular had a very low representation in the sample as a whole, but a high correlation with high performing organizations.

Less easy to understand was the high correlation between low frequency of contact with the CEO and high CREAM performance. This is in complete contrast to the research findings reviewed in chapter 3, and also inconsistent with those above.

One reason may be the small number of management levels in many New Zealand organizations. In addition, it is believed that an associated problem with the relevant survey question may have existed, such as a high number of CEO's (especially in small organizations) being themselves responsible for CREAM. This may have distorted the results as it may not have been clear how to record frequency of contact with ones self. Another possibility is that relatively high proportions of high performing organizations have largely autonomous corporate real estate units or subsidiaries.

As an "holistic" question on CREAM information systems was part of the performance model, a high correlation between individual MIS sub-components and performance was expected. This was the case, but the relative strength of the various relationships was also of interest. Strategic information was most significant, in contrast operational level
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information was not significantly correlated with high levels of performance. These latter types of historic accounting information were found to be dominant in existing MIS systems by Redman, Johnson and Tanner (1994), but data to aid future decision-making was lacking.

This means future development of CREAM MIS systems should focus on identifying and integrating strategic level information rather than operational data, such as rental rates per square metre or maintenance costs. This may prove difficult as strategic data varies more from organization to organization than operational data and standard MIS software packages, which are often based on investment property models, may have trouble coping.

Also, Byrne (1994) found a “chicken and egg” type situation with the need to have a strategic corporate real estate plan “forcing” the development of an effective MIS system, or alternatively the output of an effective MIS system stimulating the development of a strategic corporate real estate plan. Similarly, Bourne (1988) found that corporate real estate decisions were being made “in the absence of a reliable database and outside the strategic planning process” (p.4). Later, Bourne (1989) again identified the same problem with “the limited information held on the estate, and its un-coordinated dissemination precluding development of a fully effective management strategy”.

In light of the above it was surprising to find that recording the value of real estate assets using current market value was only weakly associated with higher levels of CREAM performance. Similarly, having sufficient information and evaluation methodology available was only correlated with high performance at the 10% level.

An explanation of this may be that strategic level decisions are often characterized by less availability of hard data (as evidenced by the responses to the MIS questions) and established methodology than lower level decisions, and rely more on the experience, integrative and intuitive abilities of management.

The responses to question R5 also indicated strategic level decision-making was associated with high levels of performance. Similarly, while question R6 revealed the
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amount of time spent on quite a wide variety of management activities to be significantly related to performance, the highest correlations were for developing real estate strategy, undertaking market analysis and viability studies, and buying and selling real estate assets.

These results are noteworthy, as in the overall sample these activities were rated as relatively unimportant. This highlights the contrast between typical organizations and high performing ones and indicates the activities that time should be spent on in order to improve CREAM performance.

The formal educational qualifications of corporate real estate managers were found to be highly correlated with high performance, and still significant, but only at the 10% level was the length of time in the current position. These are interesting findings, especially if considered in light of the descriptive results in chapter 6 that show only a very small percentage of the sample hold relevant qualifications (15%), or have any significant length of tenure in their positions.

It would appear performance could be enhanced significantly if attention was paid to recruiting and then retaining appropriate corporate real estate personnel. This point was also made by Byrne (1994), who said that even if an outsourcing strategy was pursued it was crucial that a cadre of high level corporate real estate staff be retained who are familiar with core business needs. Similar comments were made by the RICS in evidence before the Audit Commission (RICS 1987), and shortcomings in corporate real estate staff expertise were also raised in the Audit office reports on Estate Management in the NHS (Bourne 1988), and Control and Management of the Metropolitan Police Estate (Bourne 1989).

In respect of outsourcing, having an outsourcing strategy was correlated with high performance, as were outsourcing the functions of property valuations, Building Act/Health and Safety compliance and feasibility studies/market analysis. Less expected, and contrary to most prior research, was a less significant but positive correlation between performance and the outsourcing of real estate strategic planning. This may be due to a number of small organizations in the sample having no internal real estate
expertise at all; as a result CREAM performance was increased by outsourcing the entire function.

*Longer outsourcing contracts* were only found in 20% of the total sample, but were significantly correlated with performance, possibly for reasons such as familiarity with core business needs as raised by Byrne (1994) and the RICS (1987) and mentioned above.

The most important factors in selection of outsourcing service providers by high performing organizations were *experience, an existing relationship, overall chemistry,* and *project methodology.* While experience is a factor with a similar ranking in the total sample and earlier research, the other factors mentioned above were only ranked fifth, ninth and tenth out of thirteen.

Significant individual characteristics important to high performance CREAM were *market and investment analysis skills, positive and professional attitude, teamwork and sound judgement.* Again marked differences were evident, with most of the above factors only being of moderate importance in the total sample, teamwork being rated the least important.

The outsourcing factors of most importance to high performing CREAM organizations were also significantly different from those identified by the survey as a whole, but showed some similarities to overseas research on the same issue. This may be some reflection of differences in the respective samples but it appears organizations at lower levels of performance should at least look towards high performing organizations to see the direction in which they should be moving their outsourcing strategy.

This may mean that as the overall performance of CREAM in New Zealand improves we will more closely mirror the situation overseas, at least as far as outsourcing is concerned.
8.7 Conclusion

The discussion above and the results in chapter 7.4 reveal there are a large number of organizational factors significantly correlated with CREAM performance.

The following factors were found to be significantly correlated with high levels of CREAM performance at or above the 1% level.

- high number of employees
- large size of the freehold property portfolio
- high value of the freehold property portfolio
- large number of leasehold properties
- high annual rental of leasehold properties.
- formal educational qualifications of corporate real estate managers
- using property for strategic advantage
- significant time spent developing real estate strategy
- a profit centre organizational structure
- standardized rules for corporate real estate
- problem solving orientation
- teams and alliances often formed
- corporate real estate used to reduce risk
- a high degree of exposure to and integration with core business strategy
- frequent liaison with CFO's and core business unit heads
- MIS system providing support for strategy development
- use of advanced decision making techniques
- concern about public perception, balance sheet effects, contributing cash flow and industry benchmarking
- undertaking market analysis and viability studies, and buying and selling real estate assets
- having an outsourcing strategy. Long term contracts and outsourcing property valuations, Building Act/Health and Safety compliance and feasibility studies_market analysis.

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The following factors were found to be significantly correlated with high levels of CREAM performance at above the 10% level.

- organizational restructuring
- levels of CREAM delegation
- length of time in the current position.
- recording the value of real estate assets using current market value
- having sufficient information and evaluation methodology available

The above results present specific answers to Research Question 5 – *Are particular organizational factors significant in explaining an enhanced level of CREAM performance?* They also provide clear evidence for the rejection of the hypothesis associated with Research Question 5, which is restated below.

**HYPOTHESIS**

_No individual organizational factors can be identified that are significantly correlated with high levels of performance in respect of Corporate Real Estate Asset Management._
Chapter 9

CONCLUSION

9.1 Research Summary

Corporate Real Estate Asset Management is an emerging and important area that has only been the focus of academic research in relatively recent times. This research was only the second comprehensive look at CREAM in New Zealand, and therefore wide-ranging and exploratory in nature. A large amount of raw data was collected of which only a small amount is analyzed in detail. It is anticipated that the data collected will also form a basis upon which a number of more tightly focussed research reports will be completed.

Five research questions were identified as follows;

1. What is the Current State of Corporate Real Estate Asset Management in New Zealand?

2. Have Significant Changes Taken Place in the Management of Corporate Real Estate Assets in New Zealand Since 1992?

3. Can a Simple Model of Corporate Real Estate Asset Management Performance be Developed?

4. Is There a Relationship between Corporate Real Estate Asset Management Performance and “Corporate Real Estate Stage of Development” as Defined by Previous Researchers?

5. Are Particular Organizational Factors Associated with High Performance Corporate Real Estate Asset Management?
In answering Research Question 1 it was found there were no significant differences between the practice of CREAM in the public and private sectors, and between organizations with differing core businesses. There were also close similarities between the findings in a New Zealand context and those of prior overseas research. This means that the measure of CREAM performance developed in this study, and the relationships identified using the measure, should be of general applicability. This has implications for the transferability of future research.

However, significant differences were evident between organizations who were predominantly lessees and those who were freehold owners. This divergence has also been identified in earlier research and warrants further investigation to ensure that strategies for the development of CREAM are appropriate to the circumstances.

Most organizations had been restructured but it was unclear what effect this had on CREAM issues. Many organizations still did not clearly allocate CREAM responsibilities. Qualified and experienced asset managers were relatively uncommon, and outsourcing of the CREAM function was often seen as a solution. However, outsourcing may not be the promised panacea and a comprehensive continuing education programme and exchange of experiences amongst corporate real estate managers may be a preferable solution, without the agency problems inherent in outsourcing.

In terms of the "stage of development" concept developed by Joroff et al (1994) organizations in New Zealand tend to exhibit the characteristics of the middle stages, with a few operating at the highest level. It appears that the primary inhibiting restrictions of poor management attitude and MIS systems have been overcome in most organizations, but attention should still be focussed on these issues for those lagging behind. There are exemplars of organizations operating at the highest stages of CREAM and these should be publicly identified and used as models for the future development of the more typical organizations. They could also form case studies for the above mentioned continuing education programme.

In respect of the second research question, some issues, such as the percentage of organizations with a separate corporate real estate unit, position titles and reporting
relationships, showed little change from the earlier research of Teoh (1992). It may be that these are already at optimal levels. It is also likely the reporting level issues are not as important in a New Zealand context as overseas, due to the relatively small size of organizations. This needs to be taken account of in assessments of CREAM performance.

Other differences, such as the role of real estate in respondent organizations and organizational life cycle stage could be explained by differences in the populations surveyed. However, it was more notable how similar the response patterns were on many issues between the two different surveys. It may be that the same inhibiting factors are still in place, and/or that development needs to take place sequentially. For example, the areas where significant changes have taken place include a marked improvement in the use of computerized property MIS systems and an improvement in organizational attitude towards the management of real estate assets. These are often seen as prerequisites for improvements in the performance of other areas of CREAM.

Research Question 3 necessitated a three step approach: first, checking survey results for consistency, then for correlation amongst different performance factors, and finally applying principal components analysis in order to derive a simple measure of CREAM performance. The model arrived at neatly encapsulated the individual performance factors identified by earlier research, and therefore could be used in the analysis of Research Questions 4 and 5 with confidence. This single value model is a significant advance on the measures of performance previously applied to CREAM and will form the basis for a wide range of future studies in addition to those reported in this study.

Research Question 4 was less conclusively answered, as respondents were inconsistent in their responses to some questions. It may also be that the strongly bipolar response to some issues means that organizations have very different ways of operating and this impacted on the analysis. Even so it was evident that there is some form of relationship between CREAM performance and stage of development which warrants further investigation.
The Performance of Corporate Real Estate Asset Management in New Zealand

Research Question 5 attempted to identify whether particular organizational factors were significant in explaining an enhanced level of performance in respect of corporate real estate asset management. A large number of factors were identified, some of which, such as organizational and portfolio size, are largely beyond management control. For others there are opportunities for management to enhance CREAM performance by adopting the strategies of high performing organizations.

Recommended examples include:

- An enhanced role for CREAM in the organization, via a separate real estate unit.
- Increased integration in the overall strategic planning process.
- More frequent use of advanced decision-making techniques.
- Careful implementation and monitoring of outsourcing strategies.
- More time spent on market and investment analysis and feasibility studies.

An overarching strategy that would incorporate all of the above would be to focus on engaging, either directly or via an outsourcing contract, appropriately qualified and experienced corporate real estate managers. It is also recommended that ongoing professional development and education relating to both CREAM and the core business of the organization be provided.

If the above recommendations are implemented and further research is carried out as suggested, a continuing improvement in the performance of CREAM in New Zealand is anticipated.

9.2 Limitations

A limitation of this research was that it was based on findings and techniques derived from the limited range of previous studies carried out in the corporate real estate field. If a broader range of literature from the general management area was reviewed, in particular in respect of strategic planning, decision-making and performance
measurement, it is likely that other performance measurement and stage of development models that could equally be applied to the research questions would be identified.

CREAM is a relatively new area of study and, combined with the lack of professional qualifications evident from survey, a wide range of the level of understanding of concepts and terminology was likely. This may have impacted on the responses.

As with all surveys of this kind, the results depend on the respondent accurately and honestly reporting and interpreting the situation under study. In this case a large number of the questions required statements of opinion rather than fact and, although important questions were cross checked for consistency of response, it is still likely that some respondents misrepresented the situation applying in their organization for a variety of reasons. In addition, as only a single individual within each organization was surveyed, their opinion of corporate issues may differ from that of others, and a distorted picture result.

The survey was carried out only in New Zealand at a particular point in time and the findings may not reflect the situation in a different place and/or at a different time. The sample size was relatively large and the response rate high compared to some similar studies, so the results should be reasonably representative of the New Zealand situation. However, central government and territorial local authorities represented large sub groups with a high response rate, so an enhancement of the research would be to compensate for this effect and see if the results were affected. There is also potential for non-response bias, and although the types of organizations not responding were similar to those that did, they may have held a significantly different set of opinions.

9.3 Future Research

This study collected data on a wide range of CREAM issues, but only a limited number were examined in depth.
Future studies could extend the research direction of this thesis by addressing some of the problems identified earlier. For example, a clearer understanding of the nature of the relationship between CREAM performance and corporate real estate stage of development is needed. Also, can a greater distinction be drawn between degrees of organizational restructuring so that this variable can be better tested in relation to CREAM performance?

There appear to be differences in CREAM that relate to leasehold versus freehold ownership preferences that need further investigation. Also, while most of the organizations in this survey were relatively large and had a common set of problems, there were indications that small organizations face different issues and a study in this area may be warranted.

Other potential research questions include the following. Do people holding different positions within individual organizations have the same perception of the factors influencing CREAM performance? Are respondent ratings of situations in their own organizations accurate or is bias evident? Is there a correlation between an individual’s subjective assessment of the level of CREAM performance in their organization and the CREAM performance measure arrived at for that organization using the process developed in this study? Did the relatively low response rate from private companies have any effect on the overall findings?

Alternatively, future research could utilize the base data already collected and the new combined measure of CREAM performance developed to strike out in different directions. For example, examining relationships between portfolio size, tenure choice and other organizational characteristics. Or investigating the differences and similarities between government, non-profit bodies and conventional businesses. Also, the set of circumstances that encourages or inhibits progress of organizations from one stage of corporate real estate development to another could be looked into. There is also the potential for cross-cultural comparisons with other countries, such as Australia, to examine CREAM practices, assess relative levels of CREAM performance and stage of development, and see if the same relationships amongst factors exist.
The Performance of Corporate Real Estate Asset Management in New Zealand

REFERENCES


The Performance of Corporate Real Estate Asset Management in New Zealand


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The Performance of Corporate Real Estate Asset Management in New Zealand


Lincoln University Corporate Real Estate Survey

Note: Questionnaires returned by the due date will enter a prize draw for three cases of wine

Overall Organisation

01. Please tick the phrase that best describes the ownership structure of your organisation.

- Public Company
- State Owned Enterprise/Agency
- Government Department
- Territorial/Regional Authority or LATE
- Private Company
- Not For Profit Organisation

02. What is the core business of your organisation?

03. Circle the approximate number of staff employed by your organisation.

1-10  11-20  21-50  51-100  101-200  201-500  over 500

04. If “Restructuring” is defined as a complete and major change in total organisational structure, and/or legal status, and/or core business objectives - has your organisation been restructured in recent times? (tick one)

- Not at all
- Minor restructuring
- Extensive restructuring

If so, how long ago ________

05. In relation to your “core business” tick the statement that most closely represents your organisation.

- The nature and/or direction of our core business is uncertain, therefore flexibility is paramount.

- The direction of growth for our organisation is clear but we still need to keep our options open. There can be special advantages in having the “right” location for our core business.

- Our market is competitive so we need to be efficient and/or have a special advantage to survive – for example, a full range of products and/or services to attract our share of the established market.

- Our market is well established and extremely competitive so keeping costs down is number one priority. With little scope for price rises, gaining market share is the avenue of growth for us.

- We are not in a competitive market type of situation.

06. In your organisation the costs of occupying real estate: (please tick which apply)

- Are included as part of overall organisational overhead and not apportioned to organisational units
- Total real estate costs are included with other overheads and apportioned to organisational units
- Real estate operating expenses (eg local authority rates) are apportioned to organisational units
- Real estate operating expenses and depreciation are apportioned to organisational units
- Real estate operating expenses and a capital charge are apportioned to organisational units
- Real estate operating expenses and market rentals (or equivalent) are charged to organisational units

Other ____________________________ (please specify)
Management of Real Estate Assets

M1. Does your organisation have a formally organised real estate unit or person with this area as their sole responsibility?
   □ Yes     □ No  (please tick)

If Yes, please answer questions M2-M5 below: If No, go to question M6.

M2. State the number of - property management staff _______ - physical maintenance staff _______

M3. Has your organisation’s real estate unit/division been restructured (as defined in question O4) recently?
   □ Not at all   □ Minor restructuring   □ Extensive restructuring  If so, how long ago___________

M4. How has the number of employees engaged in property work in your organisation changed during the past 5 years? (tick one)
   □ Stayed about the Same   □ Increased Slightly   □ Increased Significantly
   □ Decreased Slightly   □ Decreased Significantly

M5. If additional space/land was required by an operating unit within your organisation, which of the following most closely resembles the process by which the space would be provided? (please tick one)
   □ The operating unit would arrange the supply of the additional space/land itself.
   □ The operating unit would specify what was required, the real estate/property unit would then arrange for it to be purchased, constructed, leased or otherwise supplied. The operating unit would need to justify the cost.
   □ The operating unit would specify what was required, the real estate/property unit would then arrange for it to be purchased, constructed, leased or otherwise supplied. The real estate/property unit would also be responsible for ensuring the real estate costs were not excessive.
   □ The operating unit would identify a need, then the real estate/property unit would examine options and prepare a solution believed to meet the need at reasonable cost. The real estate/property unit may propose rearranging operations to meet the need within existing space or make other savings. If operating units reject these proposals they would have to develop and justify their preferred alternatives.
   □ The operating unit would identify a need, then the real estate/property unit would offer a market based solution charging a readily determinable market rent. If there were specialised “non market” operational requirements these would be an additional cost to the operating unit.
   □ All organisational space needs are anticipated by regular meetings of heads of operating units, the real estate/property unit and management. This team reviews and justifies existing real estate costs as well as the operational and financial implications of alternative options. Decisions arrived at are implemented by the real estate/property unit.

M6. Please circle which of the following are used by your organisation for assisting in making real estate decisions.

<table>
<thead>
<tr>
<th>Method</th>
<th>never used</th>
<th>rarely used</th>
<th>sometimes used</th>
<th>often used</th>
<th>always used</th>
</tr>
</thead>
<tbody>
<tr>
<td>Accounting rate of return/payback period</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>Discounted cash flow techniques (IRR, NPV etc)</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>Consideration of risk diversification</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>Relationship to market value/rental</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>Sale and leaseback analysis</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>Consideration of non financial factors</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>Independent property management consultants</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
</tbody>
</table>
M7. Which of the following statements most closely resembles the current role of real estate management in your organisation? (please tick one)

- Accounting for the costs of using real estate and allocating both the real estate and its costs to operating units.
- Investigating ways to use less real estate or increase efficiency (e.g. by standardising office layouts, combining facilities, sub-leasing/selling excess land/buildings, refurbishing old buildings to suit new uses).
- Organising provision of land/buildings/other real estate so that operating units of the organisation have what they need.
- Examining trends in conjunction with operating units, developing the real estate implications of these trends for the “core” operations of the organisation and proposing optimal solutions.
- A separate business unit earning a return on the capital tied up in real estate assets by providing the space requirements of operating units in return for market related rents and operating expenses.
- None of the above (please elaborate).

M8. Please circle the degree to which each of the following statements is representative of your organisation.

<table>
<thead>
<tr>
<th>Statement</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Real estate management is not considered important because your organisation’s core activity is not real estate.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Management of real estate is regarded negatively as it is seen to demand excessive charges and/or reporting requirements.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Management of real estate is regarded favourably as it is seen to provide cost effective solutions to operating units’ real estate needs.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>The real estate needs of operational units are largely determined by a set of standardised rules or policies (for example so many m² per person at various levels).</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Top management recognises that every organisation that occupies space is in the real estate business as well.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Teams, alliances or joint ventures of both internal and external staff are formed to solve particular real estate related problems.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>In your opinion the management of real estate assets in your organisation needs major improvement.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Management of real estate assets can significantly reduce the organisation’s overall financial risk.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Uncertainty associated with future real estate markets, economic conditions and organisational space needs greatly affects your capacity to effect optimal real estate solutions.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Staff responsible for real estate have regular exposure to, and a good understanding of, overall organisational strategy and plans on which to base real estate decisions.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>You do not have sufficient information or methodology available to clearly evaluate the performance or use-effectiveness of your organisation’s real estate assets.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Responsibility for real estate decisions is delegated too far down in your organisation.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Individual Responsibilities

R1. What is your title in your organisation?__________________________________________

R2. How long have you held this position?__________________________________________

R3. List any formal qualifications relating to the management of real estate assets you currently hold.___________________________________________________________

R4. What is the title of the person you report to?____________________________________

R5. Indicate (by circling) the importance of the issues below to a person holding your position in your organisation:

<table>
<thead>
<tr>
<th>Issue</th>
<th>not important</th>
<th>moderately important</th>
<th>critically important</th>
</tr>
</thead>
<tbody>
<tr>
<td>The impact of a major real estate project on the balance sheet of your organisation</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>The impact of a major real estate project on the public perception of your organisation</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Lease versus own and/or sale leaseback financial analysis</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Cost of accommodation per occupier</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Benchmarking against industry standards</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Reviewing core operations to ensure efficient use of real estate assets</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Using real estate to gain a strategic advantage for your core business</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Contribution of cash flow to the organisation from real estate assets</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Maximisation of tax advantages</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Holding assets for capital gain/inflation hedge</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Refinancing of real estate to raise capital for operations</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Accounting information being available on individual properties</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
</tbody>
</table>

R6. Circle the amount of time you personally spend on the following activities in your present position.

<table>
<thead>
<tr>
<th>Activity</th>
<th>minimal time</th>
<th>moderate amount</th>
<th>most time</th>
</tr>
</thead>
<tbody>
<tr>
<td>preparation of capital budgets</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>preparation of maintenance/operational budgets</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>buying/selling real estate assets</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>undertaking financial viability studies</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>monitoring performance of existing assets</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>planning/developing real estate strategy</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>general administration</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>financial reporting</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>supervising engineering/construction</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>lease negotiation/administration</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Building Act/ health and safety</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>market analysis</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>cost control</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>maintenance supervision</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>managing external service providers</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
</tbody>
</table>
For your organisation, please tick the decisions that can be made by operational unit/division managers who are not directly involved in property:

- Real Estate disposal
- Real Estate purchase
- Real Estate maintenance
- Real Estate capital expenditure
- Real Estate lease negotiations
- None of these decisions

Communication

1. In terms of reporting level, circle how many steps you are away from the CEO of your organisation.

   1 2 3 4 5 more

2. Please circle how frequently would you liaise with the following:

<table>
<thead>
<tr>
<th>Daily</th>
<th>Weekly</th>
<th>Monthly</th>
<th>Qtrly</th>
<th>Annually</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chief Executive Officer</td>
<td>D</td>
<td>W</td>
<td>M</td>
<td>Q</td>
</tr>
<tr>
<td>Chief Financial Officer</td>
<td>D</td>
<td>W</td>
<td>M</td>
<td>Q</td>
</tr>
<tr>
<td>“Core” Business Unit heads</td>
<td>D</td>
<td>W</td>
<td>M</td>
<td>Q</td>
</tr>
<tr>
<td>Real Estate Agents/Valuers/Consultants</td>
<td>D</td>
<td>W</td>
<td>M</td>
<td>Q</td>
</tr>
<tr>
<td>Engineers/Technical people</td>
<td>D</td>
<td>W</td>
<td>M</td>
<td>Q</td>
</tr>
<tr>
<td>Service Providers (cleaners etc.)</td>
<td>D</td>
<td>W</td>
<td>M</td>
<td>Q</td>
</tr>
<tr>
<td>Staff in other units within your organisation</td>
<td>D</td>
<td>W</td>
<td>M</td>
<td>Q</td>
</tr>
</tbody>
</table>

3. Does your organisation have a written overall strategic plan for real estate?

   - Yes
   - No

   If yes, circle when was it first prepared? 3 6 12 24 36 months ago or longer

   How often is the plan reviewed/updated? never 3 6 12 24 36 monthly or longer

   Please circle below the degree of integration of the above real estate plan with core business operations.

   poor integration 1 2 3 4 5 complete integration

Information Systems

1. With respect to having access to an accurate computerised database containing details on each property, would you please Firstly circle the importance of a database to your organisation and Secondly circle the performance of your organisation’s database on the scale below. Circle N/A if you have no database.

   not important 1 2 3 4 5 extremely important

   poor performance N/A 1 2 3 4 5 excellent performance

2. If your organisation has a computerised property database circle its performance on each of the following:

<table>
<thead>
<tr>
<th>Poor</th>
<th>OK</th>
<th>Excellent</th>
</tr>
</thead>
</table>
   | - Shows adequate details on:
   |      |     |           |
   |      | 1   | 2         | 3         | 4         | 5         |
   | - Current use of property | 1   | 2         | 3         | 4         | 5         |
   | - Physical attributes - ie. size, dimensions, age etc | 1   | 2         | 3         | 4         | 5         |
   | - Legal matters including zoning, tenure etc | 1   | 2         | 3         | 4         | 5         |
   | - Lease details if applicable | 1   | 2         | 3         | 4         | 5         |
   | - Purchase cost | 1   | 2         | 3         | 4         | 5         |
   | - Current market value | 1   | 2         | 3         | 4         | 5         |
   | - Operating/maintenance costs | 1   | 2         | 3         | 4         | 5         |
   | - Maintenance programme | 1   | 2         | 3         | 4         | 5         |
   | - No. of people working within specific buildings | 1   | 2         | 3         | 4         | 5         |
   | - Usefulness in assisting in strategic decisionmaking | 1   | 2         | 3         | 4         | 5         |
   | - Usefulness in identifying non-performing properties | 1   | 2         | 3         | 4         | 5         |
Outsourcing

S1. Does your organisation have a strategy on outsourcing real estate-related tasks to external service providers?

☐ Yes ☐ No If yes, is this strategy set out in writing? ☐ Yes ☐ No (please tick)

S2. Is your organisation using external real estate service providers more, the same, or less than it did 5 years ago?

☐ More ☐ Same ☐ Less (please tick)

S3. Please circle the rating that best describes the frequency with which the following real estate functions are typically outsourced by your organisation (ie. provided to your organisation by external service providers).

<table>
<thead>
<tr>
<th>Function</th>
<th>Never</th>
<th>Sometimes</th>
<th>Frequently</th>
<th>Always</th>
<th>N/A</th>
</tr>
</thead>
<tbody>
<tr>
<td>Real estate strategic planning</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>Feasibility studies/market analysis</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>Real estate valuations</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>Selection of sites/premises</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>Procurement of sites/premises</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>Space layout planning</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>Building design</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>Construction/fitout management</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>Property/lease administration</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>Facilities management/maintenance</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>Building Act/Health and Safety compliance</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>RM Act/town planning issues</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>Surplus property/lease disposal</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
</tbody>
</table>

S4. Does your organisation currently have any contracts with external service providers for periods of 3 years or greater, for the provision of any of the services listed in question S3 above? (tick one) ☐ Yes ☐ No

S5. Rank the 5 main reasons (from 1 to 5, 1 being the main reason) that your organisation obtains real estate services from external service providers (if applicable).

<table>
<thead>
<tr>
<th>Rank</th>
<th>Reason</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>To obtain a more independent service</td>
</tr>
<tr>
<td></td>
<td>To gain a better quality of service</td>
</tr>
<tr>
<td></td>
<td>To reduce the cost of the service</td>
</tr>
<tr>
<td></td>
<td>To access skills, technology, best practice not available within your organisation</td>
</tr>
<tr>
<td></td>
<td>As the service is not a core business of your organisation</td>
</tr>
<tr>
<td></td>
<td>To provide greater flexibility in staff resources</td>
</tr>
<tr>
<td></td>
<td>Other</td>
</tr>
</tbody>
</table>

S6. Tick the 3 methods most commonly used by your organisation to identify real estate service providers.

☐ Advertising (eg. request for proposal) ☐ Recommendation from an associate
☐ Direct approach by service provider ☐ Professional affiliations
☐ Networking/personal contact ☐ Real estate publications
☐ Other
### S7. Indicate the importance of the following characteristics in your selection of a real estate service provider

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>Not important</th>
<th>Importance (please circle)</th>
<th>Extremely important</th>
</tr>
</thead>
<tbody>
<tr>
<td>Relevant past experience</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Size of Company</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Quality of assigned employees</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Local expertise</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Project methodology</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Reputation/references</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Independence of service</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Price</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>National capability</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Overall 'chemistry'</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Breadth of services available</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Quality of proposal/presentation</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Existing relationship with provider</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Other</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
</tbody>
</table>

### S8. Please circle to indicate the importance of the following skills/criteria for individual personnel/consultants providing real estate services to your organisation.

<table>
<thead>
<tr>
<th>Skill</th>
<th>Not important</th>
<th>Importance (please circle)</th>
<th>Extremely important</th>
</tr>
</thead>
<tbody>
<tr>
<td>Investment analysis skills</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Market knowledge</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Depth of experience in property</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Formal property qualifications</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Breadth of skills</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Negotiation skills</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Presentation skills</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Strategic management skills</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Market analysis skills</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Understanding of your organisation</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Knowledge of business management principles</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Other</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
</tbody>
</table>

### S9. Please circle to indicate the importance of the following personal attributes for individual personnel/consultants providing real estate services to your organisation.

<table>
<thead>
<tr>
<th>Attribute</th>
<th>Important</th>
<th>Very Important</th>
<th>Extremely important</th>
</tr>
</thead>
<tbody>
<tr>
<td>Timeliness/responsiveness</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Lateral thinking/creativity</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Sound judgement</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Accuracy/thoroughness</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Communication skills</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Ability to work in teams</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Overall professionalism</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Positive attitude/commitment</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Confidentiality</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Adaptability</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Problem solving ability</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Other</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
</tbody>
</table>

### S10. To what extent do you consider the following factors contribute to successful outsourcing of property services?

<table>
<thead>
<tr>
<th>Factor</th>
<th>Not important</th>
<th>Importance (please circle)</th>
<th>Extremely important</th>
</tr>
</thead>
<tbody>
<tr>
<td>Provider’s understanding of your business</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Acceptance of outsourcing by your staff</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Cost savings achieved</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Responsiveness of the service provider</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Communication/interface between the parties</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Retention of ultimate control</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Quality of service provided</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
</tbody>
</table>
Quality of personnel assigned by provider  | 1  | 2  | 3  | 4  | 5  
Clarity of objectives prior to outsourcing | 1  | 2  | 3  | 4  | 5  
Effective performance measurement tools     | 1  | 2  | 3  | 4  | 5  
Performance based fee structures            | 1  | 2  | 3  | 4  | 5  
Full analysis of costs prior to outsourcing  | 1  | 2  | 3  | 4  | 5  
Well developed service level agreement      | 1  | 2  | 3  | 4  | 5  
Well planned transition of services         | 1  | 2  | 3  | 4  | 5  
Other                                        | 1  | 2  | 3  | 4  | 5  

S11. If property services have been, or presently are outsourced by your organisation, please indicate the general success of this outsourcing. (circle on the scale below)

Very successful | 1  | 2  | Moderately successful | 3  | 4  | Unsuccessful | 5

Please comment on the ways in which this outsourcing has been:
Successful____________________________________________________________________
____________________________________________________________________________
____________________________________________________________________________
____________________________________________________________________________
____________________________________________________________________________
____________________________________________________________________________
Unsuccessful____________________________________________________________________
____________________________________________________________________________
____________________________________________________________________________
____________________________________________________________________________
____________________________________________________________________________
____________________________________________________________________________
____________________________________________________________________________

Are there any property services that your organisation previously outsourced, that are now being performed internally within your organisation? (tick one)  □ Yes  □ No
If yes, please comment____________________________________________________________________
____________________________________________________________________________
____________________________________________________________________________
____________________________________________________________________________
____________________________________________________________________________
____________________________________________________________________________
____________________________________________________________________________
Continue on separate sheet if necessary

Finally, Please Outline Your Organisation’s Real Estate Portfolio

P1. Circle the approximate number of properties your organisation owns freehold.
nil 1-5 6-10 11-20 21-50 51-100 100+

P2. If known, circle the total value of properties owned freehold (if applicable).
less than $1M $1-5M $6-10M $11-30M $31-50M over $50M

P3. Circle the approximate number of properties your organisation leases.
nil 1-5 6-10 11-20 21-50 51-100 100+

P4. If known, please state your organisation’s approximate total annual rental costs. ______________

P5. Please circle to indicate whether your organisation prefers to lease or own operational real estate.

Strong preference to lease 1 2 3 4 5
neutral 2 3 4 5
Strong preference to own freehold 5

P6. How does your organisation generally record real estate value? (please tick one)

☐ Historic Cost  ☐ Current Market Value  ☐ Depreciated Replacement Cost

Other ___________________________________________________________(please specify)

THANK YOU FOR TAKING THE TIME TO COMPLETE THIS SURVEY
- PLEASE RETURN IT IMMEDIATELY TO ENTER THE PRIZE DRAW
Survey Instructions

The enclosed questionnaire should be completed by the person within the organisation who has primary responsibility for the purchase, lease, management and disposal of real estate assets (such as land and buildings) used in the “core business” of the organisation.

You should not need to refer to anything to complete the questionnaire and it should take about 15 minutes.

If you are unsure of how to answer any question feel free to skip that question (or contact Lincoln for clarification).

If you don’t have required information readily to hand (eg. number of employees) or you feel the information is confidential, again feel free to skip the question or make an estimate.

Additional comments or explanations are welcome - use additional paper if necessary.

“Operational Unit” is defined for the purposes of this survey as part of an organisation whose primary activities are directly related to the organisation’s core business. In contrast the real estate/property unit would usually be seen as a “Support Unit”.

“Core Business” in turn is defined as the primary reason for the activities of the organisation as a whole. It does not imply that the activity must be carried out at a profit.

“Outsourcing” is defined as the use of contractors, consultants or other parties who are not employees of the organisation, to provide a service or carry out some activity on behalf of the organisation.

The survey forms are anonymous so your confidentiality is assured. In any case returned forms will be held in strict confidence and any published results will include only aggregated figures.

In order to identify and follow up non respondents and award the three prizes of mixed cases of Giesen Premium quality wine it is necessary to code the return envelopes. Should you be particularly concerned about confidentiality feel free to return the survey in a plain envelope, however, this will mean we will not be able to identify you for the prize draw and you may be contacted as a result of non response unnecessarily.

Please complete and return the survey immediately. Your assistance in contributing to research in this important area is very much appreciated.

Completed questionnaires mailed on or before

Monday 7 December 1998

will enter three draws for a mixed case of Giesen premium quality wine.