PROFIT SHARING IN PROFESSIONAL ACCOUNTING FIRMS

IN DIFFERENT COUNTRIES AND BY ARCHETYPES

BRIAN C. HOPLEY

MASTER OF FINANCIAL MANAGEMENT
1996

CENTRAL QUEENSLAND UNIVERSITY
FACULTY OF BUSINESS

PROFIT SHARING IN PROFESSIONAL ACCOUNTING FIRMS IN DIFFERENT COUNTRIES AND BY ARCHETYPES

SUBMITTED BY:
BRIAN C. HOPLEY

November 1996

A dissertation submitted in partial fulfilment of the requirements of the degree of Master of Financial Management.

ACKNOWLEDGMENTS

First, I would like to thank my supervisor, Kathy Ramm for her valuable assistance, support and guidance.

I would also like to thank the following:

Jayne Godfrey for slogging through the initial version of this dissertation and commenting thereon;

Geoffrey Burrows for access to material in relation to the study of Australian firms;

Ian Zimmer for comment on factors relating to partners' compensation;

Peter Mansfield and Glen Mc Pherson for direction and assistance with statistical analysis of the data;

My colleagues in the department for their valued though unspecified inputs;

Kim Lehman & Julie Hawksley for sharing their desktop publishing skills;

Finally, to my wife Trish for her unfailing encouragement.

TABLE OF CONTENTS

ABSTRACT

PROFIT SHARING IN PROFESSIONAL ACCOUNTING FIRMS IN DIFFERENT COUNTRIES AND BY ARCHETYPES

It is very difficult to diversify one's human capital (Gillson & Mnookin, 1985) which in turn influences one's remuneration in professional service firms. Partner compensation arrangements are central to the organisational purpose of professional accounting firms and partner remuneration plays a vital directional role in partnerships.

This study investigates whether nationally organised accounting firms use the same profit sharing methods in different countries to enable national firms to move to a fully international structure where partners in all countries share from the same profit pool. A single profit pool creates opportunities for firms to utilise the benefits relating to size and international expertise and obtaining work that uses this competitive advantage. A firm may also reduce its risk by rationalising its operations and reduce the exposure to work in which it does not have a competitive edge. The profit sharing arrangements of large professional accounting firms in South Africa were analysed focusing on similar criteria to that used in a study of profit sharing between partners in Australian "Big 6" professional accounting firms (Burrows & Black, 1996).

This research confirms that there are common themes in profit sharing methods used by national professional accounting firms in different countries. It strengthens the argument for having profit pools as wide as the ability to efficiently supply expertise across locations. (Zimmer & Holmes, 1996).

Partners' views concerning what should be rewarded in a "Big 6" firm are also investigated and relative reward levels for partner archetypes are presented. These gradations reflect the degree of diversifiable risk for partners in large accounting partnerships resulting from the individual characteristics and roles of partners.

Finally some thoughts on the principal determinants of partner share awards are discussed.

Brian C. Hopley
Central Queensland University

November 1996

I. INTRODUCTION

Partner compensation arrangements are central to the organisational purpose of professional accounting firms since they will influence the character and direction of a firm. Partner remuneration plays a vital directional role in partnerships and should encourage partners to excel in a way which not only benefits themselves but supports the overall strategy of the firm. Rational partners in professional accounting firms, despite "thinking as one firm" in various geographical locations around the globe, will not contemplate "acting as one firm" unless they move to a fully international structure where partners in all countries share from the same profit pool. Zimmer & Holmes (1996) hold the view that the width of profit sharing will be determined by the ability to efficiently supply accounting services expertise across locations.

The broad purpose of this study is twofold. Its first purpose is to investigate if nationally organised professional accounting firms use the same profit sharing methods in different countries and/or have greater variations in the ranges of profit shares. It is expected that profit sharing methods in national firms, because their clients are clients of the firm rather than clients of a partner in the firm, will relate to keeping the business in the firm and, therefore, ought not to have variation in different countries. Common structures and profit sharing methods will facilitate moves to a fully international structure where partners in all countries share from the same profit pool. A single profit pool creates opportunities for firms to utilise the benefits relating to size and international expertise and obtaining work that uses this competitive advantage. A firm may also reduce its risk by rationalising its operations and reduce the exposure to work in which it does not have a competitive edge.

Its second purpose is to test the relative relationship between partner archetypal roles and partner compensation in a firm by identifying the basis for reward and the characteristics which merit reward. Relative ranking of reward levels are derived based

upon partner archetypal roles in a partnership. It reveals partners' views concerning what should be rewarded in a professional accounting firm. These gradations in relative remuneration reflect the degree of diversifiable risk for partners in large accounting partnerships due to individual partner characteristics and roles in a firm
Some thoughts on the principal determinants of partner awards are also presented. This study expands the literature in the area of the determinants of profit sharing among partners in professional accounting firms.

A list of explanations of key words used in this work is contained in **Chapter X**.

The following research questions are addressed:

> How do large national accounting firms share profits in different countries?
>
> What profit sharing methods do nationally organised firms use in different countries?
>
> How do partner archetypes influence the sharing of the profits in a firm?

The focus on one industry is justified by reference to arguments proffered by Cooper & Hinings (1988) that archetypes are

> *"... institutionally located... and sector specific" (p23)*

and Clegg (1981) that organisational analysis will proceed most productively if it focuses

> *" ... on a sample of organisations within a particular branch of the industry" (p:560).*

The concept of an archetype derives from the idea that organisations operate with a limited number of configurations of structure, strategy and environment.

Miller and Friesen (1984) explain that

> *"configurations are composed of tightly interdependent and mutually supportive elements such that the importance of each element can best be understood by making reference to the whole configuration" (p1)*

A design archetype is thus a set of ideas, beliefs and values that shape prevailing conceptions of what an organisation or person should be doing, of how they should be doing it and how they should be judged, combined with structures and processes that serve to implement and reinforce those ideas (Greenwood and Hinings, 1988). The understanding of archetypes *per se* is not the primary interest but is a necessary precursor to understanding the determinants of profit sharing. Greenwood and Hinings (1993) express the view that

> *"... in order to get to grips analytically and empirically with strategic organisational reorientations, it is necessary to conceptualise the scale of change. The concept of archetypes gives a basis for doing this by defining what constitutes frame breaking change." (p1053)*

Numerous studies have been made on the organisational structures of professional service firms and on methods of splitting the partnership pie. These studies have predominantly concerned **law firms** in the United States of America.

Literature searches on **profit sharing issues** reveals that, until recently, profit sharing in professional accounting firms has been a neglected research topic. There is gathering momentum for geographically dispersed professional accounting firms to converge into single profit sharing entities. This has created a need to uncover compensation arrangements existing in different locations to facilitate finding agreeable profit sharing arrangements between these potential partners of the expanded entities. The move follows a path similar to that taken by companies in industries such as information technology and engineering designed to create a transnational organisation able to call on a global pool of consultants.

Rachlin (1979) succinctly summarised the professional accounting services industry as

> *"the forgotten professionals ... in terms of... methods which ... affect the partner's compensation" (p:66)*

Stevens (1981) studied the operations of the then "Big 8" largest accounting firms. He concentrated on the internal operations and dealt only indirectly with profit sharing methods.

Landis (1986) evaluated formula driven approaches versus subjective systems to profit sharing. He argues that the goal of professional accounting firms should be to ensure that all clients should become clients of the firm and

> *"... obtaining new business and keeping the business is the standard method of operation, not subject to whether the compensation formula will properly reward such efforts." (p:35)*

He found that formulas seldom adequately compensate meaningful management time, training, team spirit or attitude in setting criterion which merit reward. He also reviewed the work of several authors relating to partnership compensation in law firms. He found that virtually every author advocates that points be allocated representing partners' entitlement to a share of the net profit each year. The share of each partner should not be shown as a percentage as this avoids the psychologically damaging effect of a reduction of percentage shares when a new partner is admitted.

Dunn (1989) advocated that it was time to create a pay structure that identifies and rewards those whose contributions are outstanding in accounting firms. He found that the "Up or Out" approach to progression in firms resulted in a costly drain of expertise and wasted training costs. He also found the traditional partnership system of tenure and low wages in progression to partnership to be outdated. He argued that remuneration kept at a low level for everyone, in lieu of later admission to the partnership for some, exacerbates the drain of expertise from a firm. Lenz and Mudrick (1990) discuss profit sharing in accounting firms in broad terms without dealing with profit sharing methodologies.

Ferguson and Wines (1993) conducted research into the characteristics and background of persons being admitted to partnership in Australian "Big 6" firms. They found that satisfactory progression to partnership requires accountants to be technically competent and to possess well developed communication and interpersonal skills in the early stages of their career. Eventual elevation to partnership depended on them acquiring practice development skills. These requisite characteristics documented above were used by the researcher to evaluate the suitability of the survey instrument in accounting firms to gauge the remuneration of partner archetypes.

Holmes & Zimmer (1995) outline the incentive problems caused by functional divisionalisation in large accounting practices and the procedures used to cost effectively mitigate these problems. They found that the nature of the economies of scope that exist to outweigh these costs were not attributable to cross referrals to other divisions from audit divisions. Audit divisions were net receivers of referrals from other divisions which was hitherto contrary to what had been posited in the literature. They found that mitigation of diseconomies of scope were achieved through other measures. These included abandonment of divisionalisation by product in these firms and adjustment to profit sharing procedures on subjective criteria such as the amount of cross referrals.

Recently, Burrows & Black (1996) reported on the organisational structures of Australian "Big 6" accounting partnerships and the profit sharing arrangements which apply in their Melbourne offices. Their findings are reproduced in **Table 2** and were used as the basis to undertake this international comparative study with South Africa. They also documented the variations in earnings between new partners and experienced partners in these firms.

Zimmer & Holmes (1996) explain aspects of the rules used to share profits between partners in accounting partnerships. They found that accounting partnerships sharing profits on a national or international basis are likely to use performance-based profit sharing rules; whereas localised partnerships are likely to share profits equally. They also found that the former type of partnership is larger and has a greater proportion of clients that are clients of the firm. They expect that the width of partnership structure is likely to be determined by how wide the teamwork can be efficiently spread. These findings are corroborated in the international comparative study of large firms undertaken between South Africa and Australia.

The increasing demands of society towards transparency of operations in industry and service firms has created a timely opportunity for continuing research to be undertaken on professional accounting firms. Cohesion and focus with the recent studies undertaken by Zimmer & Holmes (1996) and Burrows & Black (1996) is maintained.

II. ORGANISATION OF THE DOCUMENT

Certain sections focus primarily on the international comparison of profit sharing methods in different countries. The remainder is devoted to the testing of the second hypothesis on profit sharing by partner archetypes. The remainder of this document on **profit sharing issues** is organised as follows.

Chapter III

This chapter deals with the theoretical frameworks used in the study.
The introduction on the theoretical development of a firm and the section on organisational structures is the methodology used to conduct the international comparative study on profit sharing methods. Portfolio theory and agency theory is discussed in relation to profit sharing by partner archetypes.

Chapter IV

Two independent hypotheses in this study are posited in this chapter. Hypothesis 1 relates to profit sharing methods and Hypothesis 2 relates to profit sharing by partner archetypes.

Chapters V to VII

These chapters cover the research design, results and analysis. Readers are **recommended** to read sections V through VII pertaining to Hypothesis 1 **first** and thereafter return to sections V through VII relating to Hypothesis 2. In each of these chapters, profit sharing methods and partner archetypes are presented separately.

Chapter VIII and IX

These chapters present the implications of the study, a review of the limitations and suggestions for further research.

III. THEORETICAL FRAMEWORK

The conceptual framework for this work, which is derived from the organisational studies literature and from portfolio and agency theory, appears in the next section.

The concepts of archetypes and organisational change have been deployed in the comparative study of profit sharing methods between "Big 6" professional accounting firms in Australia and South Africa. A frame breaking change or difference in the archetypal framework between two firms is used as a basis for asserting that there are different profit sharing methods between the firms in the two countries. The same elements in the archetypal form of operation of these professional accounting firms in both countries will provide evidence of common structures and profit sharing methods in all these firms.

Portfolio theory and agency theory provide us with the theoretical framework to explain differences in the relative ranking of reward levels based upon partner views of what should be rewarded in a firm. Portfolio theory highlights the concept of unsystematic risk to partners of professional firms in the form of variation in earnings from the firm resulting from the individual characteristics and roles of a particular partner. Despite diversification of some of the risks, like specialisation, through partnership in large firms, undiversified risk remains for partners in these firms. Archetypes allow the degree of diversifiable risks to be reflected for partners resulting from their individual characteristics and roles in a firm.

A. *Portfolio and Agency Theory*

The nature of a firm was first documented by Coase (1937).

> *"A firm, therefore consists of the system of relationships which comes into existence when the direction of resources is dependent on an entrepreneur" (p:393)*

Alchian and Demsetz (1972) analyse the nature of a firm in terms of team production, where it is economically worthwhile to organise and discipline inputs. They propose that firms exist when the marginal productivity gains from the partnership exceed the organisational costs of the partnership. Alchian and Demsetz (1972) emphasise costly free riding behaviour will be found where there is team production and where it is not possible to allocate rewards strictly as a function of the productivity of inputs. They stress that, if the economic organisation meters poorly, with rewards and productivity only loosely correlated, then productivity will be smaller; but if the economic organisation meters well productivity will be greater.

Team production makes metering difficult. In many services rendered by accounting firms the output is created by a team and is not the sum of separable outputs of each of its members. Each input owner will have more incentive to shirk when s/he works as a team.

> *"... nonetheless if team effort is more productive than separable production with exchange across markets, then there will develop a tendency to use profit-sharing schemes to provide incentives to avoid shirking." (p:786)*

The term of the contracts between the joint inputs form the basis of the entity called the firm. The traditional economic factors of economies of scale, specialisation, scope and scale partially explain the sustained existence and growth of the "Big 6" professional accounting firms. Real benefits from economies of scope lie in multi disciplinary professional services firms. Arthur Andersen have established their first legal division within the professional accounting firm in South Africa through acquisition of a local law firm in 1995. A global single profit pool creates further opportunities for firms to utilise the benefits relating to scale and international expertise and obtaining work that uses this competitive advantage, thereby further negating the increased costs through shirking in such accounting firms.

Team production in intellectual skills will more likely be by partnerships since the essence of a partnership is the sharing of profits and the public interest activities of accountants are regarded as being best organised through the medium of partnerships.. Existing legislation in Australia also does not permit professional accounting firms rendering audit and insolvency services to be incorporated under the Corporations Law.

(a) Portfolio theory

Gillson & Mnookin (1985) used the theoretical frameworks of Portfolio theory and Agency theory in their study of how partners split profits in law firms. These theories are also relevant to the study of profit sharing in large professional accounting firms.

Portfolio theory is succinctly summarised by Gillson & Mnookin (1985)

> *"... (The) theory rests on the insight that risk averse investors will always hold a diversified portfolio of capital assets. This observation follows from two premises: that investors prefer more return to less*

given the same level of risk; that investors prefer less risk to more given the same level of return. By combining assets in a portfolio, the investor can reduce the level of risk without reducing expected return. A rational investor will then select the portfolio of assets that offers the most desirable combination of risk and return." (p:322)

Portfolio theory is concerned with understanding what factors determine the value of a capital asset. In relation to professional accounting partnerships, it is the maximisation of each individual partner's human capital. However it is extremely difficult to diversify one's human capital.

Risk is made up of two components referred to as **systematic** and **unsystematic** risk. Systematic risk is associated with holding any asset whereas unsystematic risk is associated with holding a particular asset. A fully diversified portfolio is not subject to unsystematic risk and will not affect the value of an asset in the portfolio. The return on and therefore the price of a capital asset will depend on how much systematic risk is associated with it. The ability to practice accountancy is a capital asset and the partners earnings are subject to systematic and unsystematic risk. **Systematic** (undiversifiable) risk in professional accounting partnerships is the extent to which the partner's earnings from the firm vary with overall economic conditions.

Unsystematic (diversifiable) risk, in contrast, is the variation in earnings from the firm resulting from the individual characteristics of a particular partner. Portfolio theory asserts that investors in the partnership (ie. the partners) do not earn a return for bearing the unsystematic risk associated with a capital asset because that risk can be eliminated by diversification.

Professional accounting firms no longer simply offer accounting and auditing services. A cursory perusal of the internal organisation of Deloitte & Touche in **Table 2** reveals their involvement in accounting, auditing, business development services, computer assurance services, corporate finance, corporate governance, management consulting, receivership & insolvency and tax. There is an increasing trend towards industry and field specialisations. However specialisation is an unsystematic risk and increases the undiversified risk of partners. Portfolio theory reveals the potential gains from diversification. The range of services, expanded even further through industry specialisation within fields, provides the opportunity for individual partners in large accounting partnerships to diversify some risk through profit sharing arrangements.

While portfolio theory reveals the potential gains from diversification, portfolio theory also allows us to reflect the degree of diversifiable risk that remains, resulting from the individual characteristics and roles of partners in a firm. Diversifiable risk in the form of individual partner characteristics and roles in a firm are represented in seven specified archetypes. The eighth archetype is the typical average partner. Distinct gradations of archetypes based on different relative remuneration levels set for the specified partner archetypes reveals the extent of diversifiable risk for partners in the firm.

There are boutique accounting firms like Ferrier Hodgson specialising in particular services such as liquidations and insolvency. The levels of returns from a specialised practice, while higher than from a general practice, is likely to vary more substantially (Gillson & Mnookin, 1985). Risk can be firm specific or partners' specific and each has a systematic and an unsystematic component. It is emphasised that in this study of partner remuneration by archetypes, risk has been defined in terms of partner remuneration.

(b) Agency theory

The agency theory literature addresses the problem of how to structure the relationship between the principals and agents in order to provide the appropriate incentives for the agent to take actions which will maximise the welfare of the principal. In all agency models, individuals are assumed to be motivated solely by self interest. This is consistent with the behaviour of partners in professional accounting firms who are quite economically rational.

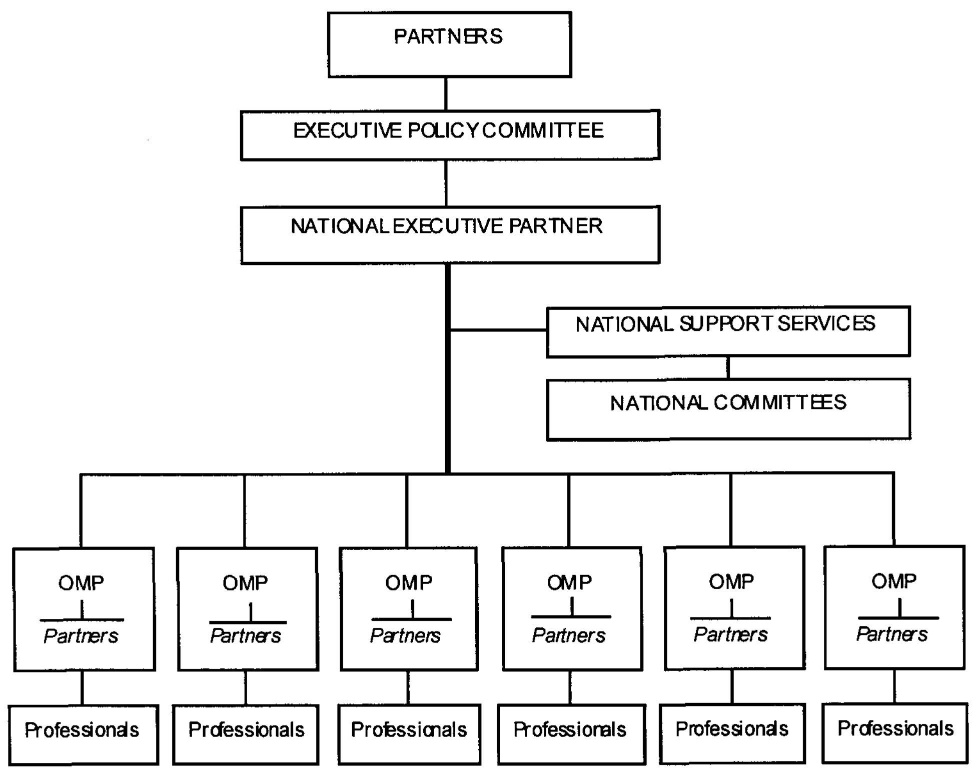
> *" An agency problem arises if the cooperative behaviour, which maximises the group's welfare is not consistent with each individual's self interest. This occurs if the employment relationships are such that, given that everyone else is acting cooperatively, one or more individuals could make themselves better off by deviating from their cooperative behaviour. If one or more individuals deviate from their cooperative behaviour, others may find it in their best interest to deviate. The end result is that when cooperative behaviour is not consistent with self interested behaviour, the group suffers a loss of efficiency and all individuals are potentially made worse off (Baiman 1990 p:342)."*

Agency theory allows us to identify three problems associated with profit sharing. They are **shirking** which is a failure of a partner to do a fair share of the work; **grabbing** which is an extraction of a larger than previously agreed share of the profits by threatening to depart; and **leaving**, a withdrawal from the partnership with a portfolio of the firm's clients. Agency theory highlights the barriers to capturing the gains enunciated by portfolio theory. It also provides the methodology by which these barriers of shirking, through monitoring billable hours, leaving, through restricting the potential for exit to form new coalitions of partners in new firms, and grabbing, through structure of rewards over the longer term, engaged in by partners of firms from time to time can be reduced or eliminated.

Portfolio theory and agency theory provide us with the theoretical framework to quantify and measure the relative cost to partners of undiversified risk in the form of their roles and individual characteristics in the partnership of their choice.

B. Structure of Organisations

The partial structure of a typical large accounting firm is set out below:



*This pattern is repeated in each principal country in which a large accounting firm operates. "OMP" represents a local office managing partner.

Source : Greenwood et al (1990) "*P^2 Form" Strategic Management: Corporate Practices in Professional Partnerships.* p 732.

The above diagram is presented as an overview of the typical structure, through which the firms in this work, and in which the partners in these firms, will operate.

(a) Organisational change

The foundation for much of the recent theoretical work on organisational change evolved from the idea of evolutionary periods of incremental change in the lifecycle of an organisation interspersed by revolutionary periods of large-scale changes or crises (Greiner 1972). Greenwood and Hinings (1988, 1993) and Kikulis, Slack & Hinings (1995) identified a variety of patterns of change within and among organisations. There is consensus among these researchers, and others also, that change is not incremental. Long periods of stability are interrupted by intense periods of rapid change.

The punctuated equilibrium model of organisational transformation has also emerged as a prominent theoretical framework for explaining fundamental changes in patterns of organisational activity (Tushman and Romanelli 1985). Punctuated equilibrium models enable predictions about patterns of fundamental organisational transformation. Proponents of the general theory argue that the common state of organisational activity is one of equilibrium. Having established an initial pattern of activity, organisations develop coherent systems of shared understandings that support continuation of the established patterns. According to the punctuated equilibrium model, radical and discontinuous change of all or most organisational activities is necessary to break the grip of strong inertia.

Punctuated equilibrium theorists stress the interdependence of organisational subunits. Romanelli and Tushman (1994) explain that the result of interdependence is not a cascading adaptation over related organisational subunits, but rather resistance to change as subunit managers seek to maintain a complex network of commitments and relationships. They emphasise that resistance to change is critical to equilibrium theory

"... in that it establishes the key condition that supports revolutionary transformation as the principal means by which organisations can accomplish transformation." (p1144)

Resistance to change prevents small changes in organisational subunits from taking hold or substantially influencing activities in related subunits.

By contrast, non revolutionary views of organisational transformation emphasise the relative independence of organisational subunits as managers (partners) seek to adapt to changes in their local internal and external environments. Over time, as subunits repeatedly alter their goals and relationships to local environments, the organisation as a whole becomes transformed (Cyert and March 1963). Miller and Friesen (1984) associated this gradual transformation perspective with the literature of the policy theorists like Hedburg, Nystrom and Starbuck (1976), but noted that such arguments merely assume the prevalence of incremental change processes.

Punctuated equilibrium theorists have also addressed the question of how organisational transformation can be stimulated. The theory posits strong inertia as the common state of organisational affairs. Consequently consideration of how such inertia can be broken or disrupted is an imperative. Severe crisis in the performance of an organisation (D'Aveni 1989) and major changes in the environment such as a merger in professional accounting firms are posited as forces potentially strong enough to overcome inertia and stimulate fundamental organisational transformation.

Patterns of change concerned with holistic changes in structures and systems are labelled as reorientations. Convergence, momentum and evolution describe change that supports or builds upon the existing structure, systems and values within a particular archetype. Greenwood and Hinings (1988) suggest that the extent to which organisations/persons remain over time within the assumptions of a given archetype or move between archetypes can be assessed by identifying the various tracks that organisations/persons follow.

The concepts of organisational change and archetypal frameworks have been deployed in the comparative study of profit sharing methods between professional accounting firms in Australia in 1995 and in South Africa in 1996. The configurations of the five criteria comprising scope of profit pools, internal organisation of practice offices, remuneration aspects of partner admittance, profit awards and disclosure of partner awards forms the archetypal framework of profit sharing methods in "Big 6" Australian firms in 1995 for the purpose of this study. Differences within this framework, found in South African firms including those that had occurred from 1995 to 1996, were evaluated by applying the concepts of frame breaking (reorientation) or momentum (tracks) to the observed differences. A frame breaking differences is a basis for asserting that there are different profit sharing methods between the firms in the two countries.

(b) Organisational archetypes

Cooper, Greenwood, Hinings and Brown (1994) express an archetype as

> *"...not only the configurations of structures and systems but also the importance of a common orientation ... that offers ideological coherence to the configuration." (p1)*

This leads to the issue of which elements of organisational coherence and patterns in compensation arrangements we might expect to find, among and within design archetypes in professional accounting firms. The concept of an archetype in the professional accounting services industry implies classification of a firm into a *P^2 form* or a *MPB form*. The *P^2 form* denotes the term given to the discovery of the initial archetype in the professional accounting services industry by Greenwood, Hinings and Brown (1990), so named because of the twin components of Partnership and Professionalism peculiar to accounting partnerships. The *MPB form* denotes the term given to the discovery of a second archetype by Cooper, Greenwood, Hinings and Brown (1994) termed a Managerial Professional Business.

The P^2 and *MPB* archetypes are simply the corporate forms of organisation among professional accounting firms. Organisations tend to remain within an archetype rather than move between them (Greenwood and Hinings 1993). Cooper et al (1994) are also of the view that both archetypes can be found in firms of all sizes. Tables of the elements found in each of these forms are set out in **Appendix A**.

The basic features of each comprise an interpretive scheme (common orientation), a system and structure. The orientation of the P^2 *form* is on the individual ability and incentive of each partner to manage themselves whereas in the *MPB form* partnership emphasis is to see the organisation as a business and the orientation is on efficiency and effectiveness in making a financial contribution to the firm. In the P^2 *form* there is a minimal investment in formal systems of management whereas the *MPB form* introduces, rationalises and bureaucratises the process of strategic planning. In the *MPB form* market/financial control is more central and there is low tolerance of accountability. There is more emphasis on the inequality in compensation tied to performance. In the P^2 *form* market /financial control is decentralised and tolerance of accountability is high. Compensation is typically determined by seniority (years since making partner) and the overall distribution is voted on by partners. Structurally there is more specialisation between professionals in the *MPB form* than in the P^2 *form.*

There is a clear shift in partner's compensation arrangements between P^2 and the *MPB* archetypes in respect of choices between types of remuneration packages. The P^2 type firm is characterised by what is referred to metaphorically as an "*eat what you kill* *philosophy*", where each partner earns what s/he brings to the firm (Cooper, Hinings, Greenwood and Brown 1994). In the *MPB* type firm more elaborate criteria for assessing contribution are developed so that marketing or management or pro-bono work can be formally recognised.

All professional accounting partnerships have two unique features which differentiate them from other organisations. They are the dimensions of ownership and governance and the nature of the primary task (Greenwood et al 1990). In a typical business there are divisions between ownership, managers and operational employees. Every partner in a professional firm is all of these facets. The dominant characteristic of the primary task of a professional firm is that the work is done almost entirely by professionals. The accountancy task is not amenable to close bureaucratic control. Work responsibility is indivisible and it is the *"partner in charge"* of an audit who is responsible to the client. Partnerships, as a result, develop unusual structural frameworks within which strategic practices must evolve.

The *MPB form,* which represents the archetypal form in all the "Big 6" firms in the Australian study has been used as criterion for measuring common themes across all South African "Big 6" firms in this study. The elements in the *MPB form* have also been used between like named firms to identify differences in the framework of like named firms.

The concept of partner archetypes has also been used to combine partner roles and individual characteristics of partners into eight representative categories in the survey instrument used in this work.. These archetypes were used to gauge views concerning what should be rewarded in a professional accounting firm.

IV. HYPOTHESES

The initial research task sought to determine if there are common themes in profit sharing methods used by national professional accounting firms in different countries. It was predicted that there would not be great variations in the profit sharing methods in other countries compared to the Australian data presented by Burrows and Black (1996). Differences impede a move to wider profit sharing by these firms. They indicate an overriding local influence over common national structures and profit sharing methods in "Big 6" firms in geographically dispersed regions.

Hypothesis 1: Nationally organised professional accounting partnerships tend to operate through the same structures and profit sharing methods in Australia and South Africa.

Having established the profit sharing methods of national accounting firms in different countries, the research task sought to uncover some broad determinants of profit sharing among partners in large accounting firms. The views of all partners in a professional accounting firm were sought concerning what should be rewarded in a firm as represented by eight partner archetypes. Partners were asked to indicate which archetypes should receive greater or lesser compensation. Here, it was predicted that there would be general agreement on relative rankings for the eight given partner archetypes in a firm.

Hypothesis 2: Partners will tend to show consensus on the gradations for the eight given partner archetypes in the relative ranking of remuneration for these archetypes in a firm.

V. RESEARCH DESIGN

A. Profit sharing methods

Professional accounting firms are classified into the following existing loosely recognised categories in the industry, namely "Big 6", "Second tier" and "Small firms". The data for this research was gathered from national firms in South Africa collectively known as the "Big 6" firms worldwide. The equivalent "Big 6" worldwide firms in Australia are Arthur Andersen & Co, Coopers & Lybrand, Deloitte Ross Tohmatsu, Ernst & Young, KPMG Peat Marwick and Price Waterhouse & Co. Five firms practice under similar titles to the Australian practices in South Africa. The Deloitte partnership in South Africa practices under the name of Deloitte & Touche following a merger with Touch Ross South Africa. In Australia, Deloitte Haskins & Sells merged with the overseas parent of Touch Ross to become Deloitte Ross Tohmatsu, and KPMG Peat Marwick merged with Touch Ross Australia, but the name KPMG Peat Marwick remained unchanged.

Determination of the "Big 6" international industry leaders was obtained from the release of data on "Big 6" 1994/95 annual rankings published in the *New Accountant* on 31 August 1995. The **ranking** of the firms is not pertinent to this study. The grouping of the firms in this category is pertinent for the purpose of exclusion from selection.

The organisations are relatively homogeneous in terms of the complexity of their operations and legal status. One level of analysis pertinent to this study is to examine what profit sharing characteristics are common to all the "Big 6" professional accounting firms in the different countries.

Data on Australian "Big 6" organisation structures and profit sharing arrangements were collected in Australia in October 1995. A paper presented on the topic forms part of the record of proceeding at the 1996 European Accounting Association conference (Burrows & Black 1996). The author conducted semi-structured personal interviews with all the "Big 6" firms in South Africa. The interview process for this study focused on the same five criteria of profit sharing methods used by Burrows & Black (1996). The criteria and questions that were asked were

- the scope of the profit pool in which partners shared

  How wide is the partnership ?

  What is the proportionate split of partner income derived by partners from the local office, regional, national or international pool ?

- the internal organisation of practice offices

  What types of specialist services are rendered by the firm?

  Are the specialist service divisions organised on industry lines or structured around a functional specialisation?

  Are the lines of specialist services divisions of the firm or separate entities?

- remuneration aspects of partner admittance

  How are new partners selected?

  How are they remunerated initially after reaching partner status?

- how profit shares are determined

  How is the partnership pie split between partners?

  What is the basis for reward?

  What are the characteristics which merit reward?

- whether each partner knew what the other partners earned

  Do partners' know exactly what each other earn?

  If limited, what is the extent of the disclosure?

Interviews were conducted with the local office managing partner of each of four of the "Big 6" firms. One firm was not represented in the city and an interview was conducted with a senior partner in the firm in Johannesburg. The sixth interview comprised an initial interview with the local office managing partner followed by correspondence and a series of telephone calls / faxes with a senior partner of the respective firm.

In order to say whether individual firms were different, the structure and profit sharing methods of like named firms in the different countries were compared. The **structure** of the firms was measured by the level of specialisation of offices in the respective countries and the extent of disclosure among the partners of their profit share awards in the partnership. The criterion of specialisation was the extent of professional divisions and functional differences. The criterion of disclosure was exact earnings per partner or limited disclosure of average earnings per partner or office.

Profit sharing methods of the firms were measured by the scope of the profit pool and by how profit shares are determined in the firms. The scope of the profit pool was international (global), national (country) or regional (state or office) profit pools. The criteria for profit sharing was the basis for reward (units, points, reference points or subjective allocation) and the characteristics which merit reward (client service, firm management etc.), the zenith of which is the partner's remuneration. The remuneration basis of new partners lends support to the profit sharing methods of firms.

The organisational structures and profit sharing arrangements used by national professional accounting firms in South Africa were established by recording responses from the participating firms to the same questions used in the Burrows & Black study.

Following the structured interviews, the data were summarised for each firm and referred to interviewees for editing and comment. Several iterations of the process followed until clearance was received from the participants on the correct understanding of all aspects within each criterion. The data were then collated for the like named firms operating in both countries and compared for the five chosen criteria relating to profit distribution methods.

The variations in the ranges of profit shares between partners of firms in South Africa were also measured during the interview process. Each firm representative was asked to identify the approximate range in partner earnings in their firm from a table listing the variations in profit sharing ratios in Australian "Big 6" firms. The names of the "Big 6" Australian firms were disguised in the table with the use of the symbols U,V,W,X,Y & Z. The selected response from the respective South African firms from the disguised data was then later identified with the actual Australian firm to compare ranges of profit shares of firms in both countries.

Similarities found, in the width of profit sharing pools, profit sharing determinants and variations in the range of profit shares, in both countries would serve to confirm the first hypothesis relating to profit sharing methods in the respective "Big 6" firms. Similarities in the internal organisation of the offices on lines of specialisation and extent of disclosure of profit shares among all partners would provide further indirect support for confirmation of the first hypothesis.

B. Partner archetypes

Proposed changes in partner compensation arrangements by any of the "Big 6" firms interviewed would also provide a forum and timely opportunity to capture any significant attitudes of the partners in those firms towards profit sharing. Three of the firms were undergoing major reviews of partner compensation arrangements. The "Big 6" firm selected for this aspect of the study best matched the time frame for the partners to express their opinion on remuneration levels and completion of this research task in the time frame available.

The researcher was invited to participate in the deliberations of the national merit rating task group (NMRTG) of a South African "Big 6" national firm charged with a review of partner compensation in the firm. The national partnership of the "Big 6" accounting firm comprised 211 partners. The instrument constructed by Maister (1983) was used in this study as the basis to measure what should be rewarded in professional accounting firms.

A covering memorandum from the designated partner on the partner merit rating committee accompanying the questionnaire invited all partners to take part in an informal survey of the attitude of partners to partner compensation and each of the partners was mailed a questionnaire. They were assured their responses would be kept confidential and anonymous.

Forty of the partners responded to the mailing, giving a total response rate of 18.95%. These responses comprised 640 observations of which 638 observations were later found to be useable, resulting in an effective useable response rate of 18.88%.

Brownell (1995) indicates that in conducting survey research

> *"unless the motivation for the proposed study is constituted in part by concerns with the measurement of certain variables in previous literature, one should normally employ the same measurement instruments used by previous researchers." (p37)*

This study was not motivated by concerns with the measurement instruments and sought to provide a measure of confirmation of the propositions posited in relation to a different segment of professional services firms, that of **professional accounting** firms.

The Maister (1983) instrument was used in this study as the basis to measure what should be rewarded in professional accounting firms. David Maister conducted a simple study of compensation practices among **law** firms to see how different firms would deal with different types of partners. With the assistance of Steven Brill, the editor of *"The American Lawyer"*, and Bruce Heintz, a law firm consultant, he invented seven archetypal partners of a fictional firm and provided statistical and descriptive information on each. The first partner **A** was the typical Lawyer or Accountant for the purposes of this study.

Each of the archetypes was given a brief label :

A is the average partner,
B is the rising young superstar,
C is the unproductive older partner,
D is the individualistic solo operator,
E is the hardworking "backroom" lawyer (accountant),
F is the executive committee member actively maintaining a practice,
G is the struggling branch manager, and
H is the major rainmaker (business getter) with few billable hours.

The work related criteria which merit reward in the survey instrument were business getting, billable hours, dollars managed and billing rate, non billable hours and collections performance and age. The relevance of this criteria to a study of professional accounting firms was confirmed from a study by Ferguson & Wines (1993). In the Ferguson and

Wines (1993) questionnaire, developed with the assistance of the executive director of the Institute of Chartered Accountants in Australia and the education director of the Australian Society of Certified Practising Accountants, new partners in "Big 6" firms were asked

> *"How is your work time as a new partner spent ?" (Q.9)*

The responses from the new partners are listed below:

Client relations (service to existing clients)	56.3%
Practice development (new business)	21.0%
Professional and Community involvement	5.5%
Administration	16.1%
Other	1.1%

The above responses matched with the work related criteria used in the Maister survey instrument. The instrument was therefore considered appropriate for use in the researcher's study of professional accounting firms. In the Ferguson and Wines (1993) questionnaire partners were also asked to rank five given factors important in progressing to partner. The new partner's responses were

> *"practice development skills are regarded as very important and communication (skills) and interpersonal skills are seen as relatively important...Technical competence and administrative skills were ranked lowest because staff would not have reached this level without these basic skills." (p35)*

The above personal characteristics which were also included in the characteristics ascribed to archetypes in the Maister survey instrument strengthened the fit of that instrument for use in this study.

Those who participated in the researcher's study (all partners in a "Big 6" firm) were asked to indicate **for each archetype** what the likely range of compensation (high and low) should be in their firm relative to the compensation of an average partner. This was asked in order to gauge what should be rewarded in a firm and the consensus in the ranking of compensation levels. The department or field of specialisation was not amended in the questionnaire. It was implied that the categories were akin to the organisational structure of divisions found within the firm with the audit specialisation replacing the corporate departmental nomenclature in the survey instrument. No parameters other than that of the average partner set at 100 were defined and no parameters were set relating to how they should score.

A full copy of the questionnaire together with the covering memorandum is contained in **Appendix B**.

VI. RESULTS

Differences in the comparative study between Australian and South African firms of profit sharing methods are based on observation.

A. Profit sharing methods

The data collected on profit sharing methods in "Big 6" firms in South Africa is summarised in **Table 1**. Profit sharing methods in Australian "Big 6" firms, from the paper by Burrows & Black (1996), is reproduced in **Table 2**. The comparative analysis which supports the first hypothesis is presented in **Table 3**.

Table 3 shows that Arthur Andersen operates identical profit sharing methods in both countries. It also is the firm with the most extensive range of divisions. In South Africa Arthur Anderson has eight divisions while there are seven divisions in Australia. Arthur Andersen established their first legal division within the worldwide firm in South Africa through acquisition of a local law firm in 1995. This is not regarded as frame-breaking change by Arthur Anderson but currently a track pursued by Andersens to enhance its levels of specialisation.

The South African study revealed that Coopers & Lybrand had different widths or scope of profit pool in which the partners share compared to the Australian data. After a merger between Coopers & Lybrand and the largest Afrikaans speaking partnership in the country the merged firm shared profits on predominantly regional (state) based profit pools. Burrows & Black (1996) expressed the view that any differences in profit sharing methods would indicate that culture influences profit sharing. Discussion with the managing partner designate regarding the reason for the change in the profit sharing method in the merged firm, confirmed a dominant preference for retaining local focus by the merging partners while having the status attached to being a partner of Coopers & Lybrand. A merging governing board minute entrenched the position as follows

> *"local performance over a long period of time will be one of the most important factors in determining partner compensation"*

Prior to the merger the firm of Coopers & Lybrand had shared profits on a national basis.

Deloitte Touche Tohmatsu compared with Deloitte & Touche in South Africa reveals that the profit sharing criteria in South Africa has an **experience** or seniority component. The computer assurance services division in the internal organisation of the office was a sub-section of management consulting services in the South African firm before the latter became a separate international division. Deloitte & Touche split its management consultancy division in March since the collection of the Australian data and merged it with Deloitte & Touche Consulting Group. This is a separate international consulting group formed by its US-based global parent and will incorporate management consultancy divisions of its associates in more than 100 countries.

Price Waterhouse in Australia and South Africa share profits on a like national basis in 1996. Price Waterhouse (PW) shared profits on a proportionate regional and national basis in South Africa in 1995. Price Waterhouse are the second of the "Big 6" firms to take steps to widen the scope of the pool in which geographically dispersed partners in the firm share. In a report on 10 May 1996 in the Australian Financial Review, the Price Waterhouse World Firm Limited chairman said that

> *"PW was slowly moving towards a fully international structure - where partners in all countries shared from the same profit pool. But in sections of the firm dealing with the more portable skills such as*

management consulting, information technology and change integration, the internationalisation process was much further advanced." (p 7)

In PW consulting partners in Japan, the USA and Europe are one economic unit although still part of the firm and not regarded as a separate operating entity.

The South African firm of Ernst & Young has the most complex profit sharing method compared to all other firms in South Africa and Australia. It comprises a fixed component, an experience or seniority component and a performance component. The organisational structure of offices is decentralised into three regions comprising a number of states in each region. The management consulting division is an integrated division of the firm. A "Top Companies" supplement to the Financial Mail on 28 June 1996 in South Africa reported that

> *"Wixley* (a senior partner in the firm) *says the Ernst & Young consultancy works better as an integrated part of the services offered to clients...After all, we know their business better than anyone outside the company" (p:444)*

Klynveld Peat Marwick Goerdeler (KPMG) in Australia and in South Africa lag the field with regard to the scope of profit sharing. They have the most fragmented profit sharing arrangements with earnings per partner derived from regions /offices in South Africa after a sharing of national costs by all associated firms. KPMG in Australia has financially separate partnerships in each state. The Burrows & Black (1996) study reported the profit pool to be a Melbourne partnership. Since that study KPMG have announced the merger of the Adelaide and Melbourne offices from 1 July 1996. There are on going discussions in South Africa debating the advantages of a national partnership. The imbalance of over representation of the firm in certain regions and under representation in other regions has impeded the progress towards a wider scope of profit sharing. Partners in under represented regions enjoy disproportionate benefits of referral work from associated KPMG offices.

When five partners (one from each "Big 6" firm) were asked, four selected a range in profit sharing in the South African firm which corresponded to the variation in the range of profit shares in the like named Australian firm. The different response was from the firm whose scope of the profit pool in which the partners shared differed to the Australian firm. Like responses to the range of profit sharing variations in the respective firms in different countries provides evidence that greater width in profit sharing will not lead to greater variations in profit shares. This evidence of similar profit sharing width does not support the view of Zimmer & Holmes (1996) that the wider the profit pool the greater the variation in profit shares. The question was not put to one of the six firms because of its localised width of profit sharing.

The *MPB* archetypal form was found to be the corporate form of organisation among all the "Big 6" professional accounting firms in both countries. The justification for this assertion stems from the interpretive scheme of these organisations in both countries where efficiency and effectiveness criteria and medium to high levels of specialisation was evident in all firms. The criteria of specialisation was professional divisions and functional differences. All firms reported several functional specialisations including audit, management consulting, tax, corporate finance, receivership & insolvency.

The criteria of organisational efficiency and effectiveness related to the characteristics which merit reward. There were performance based profit sharing rules in all firms and client service, marketing, growth, management and productivity were evident in assessing performance in all firms. There were no equal profit sharing firms.

Table 1

Profit Distribution Methods

South African "Big 6" Accounting Firms 1996

	ARTHUR ANDERSEN	COOPERS & LYBRAND	DELOITTE & TOUCHE	ERNST & YOUNG	KPMG	PRICE WATERHOUSE
PROFIT POOL IN WHICH SOUTH AFRICAN PARTNERS SHARE	Worldwide partnership including 85% of Andersen Consulting	South African partnership: 90% of profit from region (state) 10% of profit from national pool	South African partnership: Approx 80% from national pool for role factors. Approx 20% from national pool for performance factors.	South Africa plus four neighbouring countries: 30% of local (usually office) profit retained at that level. 70% shared nationally	National/Regional - the major portion of earnings from local office/region with a sharing of national costs.	South African partnership: 100% from national pool based on partner reference points.
INTERNAL ORGANISATION OF SOUTH AFRICAN OFFICE	1. Audit 2. Business systems consulting 3. Computer Risk Management 4. Business Finance Group (Corporate Fin) 5. Tax 6. Legal Commercial Law 7. Andersen Consulting (separate entity) 8. Liquidations, Fraud & Litigation Service	1. Audit 2. Liquidations & Insolvency 3. Management Consulting Services: Commercial Public Sector 4. Entrepreneurial Advice Division 5. Taxation 6. Financial Services to High Net Worth clients	1. Audit 2. Tax 3. Reconstruction & Insolvency 4. Corporate governance services 5. Computer assurance services 6. Management consulting (separate international division) 7. Entrepreneurial services	Three geographic regions plus management consulting. Regions broken down to offices then divisions. Time elapsed before researcher could obtain clearance on greater detail for this criterion.	Major offices on industry lines with a National Management Services Division embracing most non-audit services. Other offices include the core services ie. 1. Auditing 2. Taxation 3. Private Business Services	1. Audit and business services 2. Tax 3. Corporate Finance 4. Litigation services 5. Management consulting services 6. Public Sector services
INTRODUCTION OF NEW PARTNERS	Initially as salaried partner, plus bonus on results. Admission to Andersen Worldwide dependent on performance.	Salaried principal for 1-2 years before admission to partnership.	Fewer role levels within a predetermined range of units.	1. Voted by local partners 2. Proposed by national executive. 3. 75% of national partner vote.	Selection based on core competencies and new partners earn less than the more experienced partners.	Fewer reference points.
PROFIT SHARING	According to units held in international partnership which are based on performance assessment by office managing partner as approved/modified by country managing partner and area managing partner. Unit levels for each partner are reviewed every two years. Approved by a worldwide partner unit committee.	National Pool profits on points awarded principally according to years of service. Regional Profits according to subjectively assessed criteria including: Contribution to the firm's profitability, Practice development and marketing, Practice contributions - Human Resources, Partner in Charge, etc., Client service & relationship, Coaching and skills building, Personal development.	By 'role', 'experience' and 'performance' units. 'Role' units are allocated for client and firm duties, professional contributions, and major clients. 'Experience' units are allocated for years of partnership.	70% national sharing 30% local "holdback" Profits allocated based on "Salary" component (25%) Experience component (max 12 years) Performance component (balance). Performance is measured by a rating recommended by area managing partner and approved by national executive. Performance is set in advance and measured thereafter.	According to recommendations made by office managing partner, approved by National Chief Executive. Criteria include technical skills, specialisation, experience, status in the firm and community, ability to generate revenue, professional contributions and responsibility.	According to reference points awarded by partnership remuneration committee. Partners complete annual assessment form. Criteria include: controlled hours, portfolio of clients, investment in work in progress/debtors and responsibilities including policy board, manpower, regional chief executive, partner in charge.
PARTNERS KNOW WHAT EACH OTHER EARN	YES	YES	YES	Full disclosure of total allocation per partner	Published information limited to average earnings per partner by office at a National level. Full disclosure at individual office level.	YES

Table 2

Profit Distribution Methods

Australian "Big 6" Accounting Firms 1995

Source: Burrows, G.M. & Black, C. *"Profit Sharing Between Partners in Australian "Big 6" Accounting Firms"* p26.

	ARTHUR ANDERSEN	COOPERS & LYBRAND	DELOITTE TOUCHE TOHMATSU	ERNST & YOUNG	KPMG	PRICE WATERHOUSE
PROFIT POOL IN WHICH MELBOURNE PARTNERS SHARE	Worldwide partnership including 85% of Andersen Consulting	Australian partnership including PNG	Australian partnership including PNG	Australian partnership including PNG	Melbourne partnership	Australian partnership including NZ, Fiji and PNG and some Asian consulting
INTERNAL ORGANISATION OF MELBOURNE OFFICE	1. Audit 2. Enterprise (small business) 3. Corporate recovery 4. Operational consulting & business systems consulting 5. Real estate services 6. Corporate finance 7. Andersen Consulting (separate entity)	1. Management consulting 2. Business assurance (audit, small business, due diligence, valuations, business recovery) 3. Tax	1. Management consulting 2. Audit 3. Tax 4. Corporate Finance 5. Receivership & insolvency 6. Private Business Services	1. Audit 2. Tax 3. Entrepreneurial services (small business) 4. Insolvency and reconstruction 5. Management consulting 6. Corporate advisory services	1. Audit 2. Tax 3. Greater consulting	1. Tax 2. Audit and business services 3. Corporate Finance 4. Management consulting
INTRODUCTION OF NEW PARTNERS	Mostly as a <u>national</u> salaried partner with guaranteed profit share.	Guaranteed salary for first few months.	Probably fewer 'role' units (see below).	As salaried 'principal' for 1-3 years before admission to partnership.	Probably fewer points (see below).	7 annual steps.
PROFIT SHARING	According to units held in international partnership which are based on performance assessment by office managing partner as approved/modified by country managing partner and area managing partner. Unit levels for each partner are reviewed every two years.	According to points awarded by national executive. The subjectively assessed criteria are: 1. Client management service delivery. 2. Practice development, marketing & promotion. 3. Practice management. 4. Development of people. 5. Risk management.	By (i) 'role' and (ii) 'performance' units. 'Role' units are allocated for firm duties, professional contributions and major clients. 'Performance' units are awarded for performance against personal business plan for factors including revenue, market development, staff development. The majority of total units are for 'role' factors.	By units allocated by an elected national unit assessment committee. Recommendations made by office managing partner. Criteria include portfolio of clients, responsibility, fees generated, and creation of new work.	According to partnership points which are awarded by a remuneration committee. Points criteria include seniority, status in firm, administrative duties, professional contributions, and client origination.	One-half each for: 1. Responsibility, reflecting the nature of clients as assessed by immediate superior and state managing partner. 2. Performance against business plan as assessed by immediate superior.
PARTNERS KNOW WHAT EACH OTHER EARN	YES	YES	YES	YES	YES	YES

Table 3
Profit Distribution Methods
Australian "Big 6" Accounting Firms / South African "Big 6" Accounting Firms 1996

	(AUS) ARTHUR ANDERSEN	ARTHUR ANDERSEN	(AUS) COOPERS & LYBRAND	COOPERS & LYBRAND	(AUS) DELOITTE TOUCHE TOHMATSU	DELOITTE & TOUCHE
PROFIT POOL IN WHICH MELBOURNE / SOUTH AFRICAN PARTNERS SHARE	Worldwide partnership including 85% of Andersen Consulting	Worldwide partnership including 85% of Andersen Consulting	Australian partnership including PNG	South African partnership: 90% of profit from region (state) 10% of profit from national pool	Australian partnership including PNG	South African partnership: Approx 80% from national pool for role factors. Approx 20% from national pool for performance factors.
INTERNAL ORGANISATION OF MELBOURNE / SOUTH AFRICAN OFFICE	1. Audit 2. Enterprise (small business) 3. Corporate recovery 4. Operational consulting & business systems consulting 5. Real estate services 6. Corporate finance 7. Andersen Consulting (separate entity)	1. Audit 2. Business systems consulting 3. Computer Risk Management 4. Business Finance Group (Corporate Fin) 5. Tax 6. Legal Commercial Law 7. Andersen Consulting (separate entity) 8. Liquidations, Fraud & Litigation Service	1. Management consulting 2. Business assurance (audit, small business, due diligence, valuations, business recovery) 3. Tax	1. Audit 2. Liquidations & Insolvency 3. Management Consulting Services: Commercial Public Sector 4. Entrepreneurial Advice Division 5. Taxation 6. Financial Services to High Net Worth clients	1. Management consulting 2. Audit 3. Tax 4. Corporate Finance 5. Receivership & insolvency 6. Private Business Services	1. Audit 2. Tax 3. Reconstruction & Insolvency 4. Corporate governance services 5. Computer assurance services 6. Management consulting (separate international division) 7. Entrepreneurial services
INTRODUCTION OF NEW PARTNERS	Mostly as a national salaried partner with guaranteed profit share.	Initially as salaried partner, plus bonus on results. Admission to Andersen Worldwide dependent on performance.	Guaranteed salary for first few months.	Salaried principal for 1-2 years before admission to partnership.	Probably fewer 'role' units (see below).	Fewer role levels within a predetermined range of units.
PROFIT SHARING	According to units held in international partnership which are based on performance assessment by office managing partner as approved/modified by country managing partner and area managing partner. Unit levels for each partner are reviewed every two years.	According to units held in international partnership which are based on performance assessment by office managing partner as approved/modified by country managing partner and area managing partner. Unit levels for each partner are reviewed every two years. Approved by a worldwide partner unit committee.	According to points awarded by national executive. The subjectively assessed criteria are: 1. Client management service delivery. 2. Practice development, marketing & promotion. 3. Practice management. 4. Development of people. 5. Risk management.	National Pool profits on points awarded principally according to years of service. Regional Profits according to subjectively assessed criteria including: Contribution to the firm's profitability, Practice development and marketing, Practice contributions - Human Resources, Partner in Charge, etc., Client service & relationship, Coaching and skills building, Personal development.	By (i) 'role' and (ii) 'performance' units. 'Role' units are allocated for firm duties, professional contributions and major clients. 'Performance' units are awarded for performance against personal business plan for factors including revenue, market development, staff development. The majority of total units are for 'role' factors.	By 'role', 'experience' and 'performance' units. 'Role' units are allocated for client and firm duties, professional contributions, and major clients. 'Experience' units are allocated for years of partnership.
PARTNERS KNOW WHAT EACH OTHER EARN	YES	YES	YES	YES	YES	YES

Table 3 (continued)
Profit Distribution Methods
Australian "Big 6" Accounting Firms / South African "Big 6" Accounting Firms 1996

	(AUS) ERNST & YOUNG	ERNST & YOUNG	(AUS) KPMG	KPMG	(AUS) PRICE WATERHOUSE	PRICE WATERHOUSE
PROFIT POOL IN WHICH MELBOURNE / SOUTH AFRICAN PARTNERS SHARE	Australian partnership including PNG	South Africa plus four neighbouring countries: 30% of local (usually office) retained at that level 70% shared nationally	Melbourne partnership	National/Regional - the major portion of earnings from local office/region with a sharing of national costs.	Australian partnership including NZ, Fiji and PNG and some Asian consulting	South African partnership: 100% from national pool based on partner reference points.
INTERNAL ORGANISATION OF MELBOURNE / SOUTH AFRICAN OFFICE	1. Audit 2. Tax 3. Entrepreneurial services (small business) 4. Insolvency and reconstruction 5. Management consulting 6. Corporate advisory services	Three geographic regions plus management consulting. Regions broken down to offices then divisions. Time elapsed before researcher could obtain clearance on greater detail for this criterion.	1. Audit 2. Tax 3. Greater consulting	Major offices on industry lines with a National Management Services Division embracing most non-audit services. Other offices include the core services ie. 1. Auditing 2. Taxation 3. Private Business Services	1. Tax 2. Audit and business services 3. Corporate Finance 4. Management consulting	1. Audit and business services 2. Tax 3. Corporate Finance 4. Litigation services 5. Management consulting services 6. Public Sector services
INTRODUCTION OF NEW PARTNERS	As salaried 'principal' for 1-3 years before admission to partnership.	1. Voted by local partners 2. Proposed by national executive. 3. 75% of national partner vote.	Probably fewer points (see below).	Selection based on core competencies and new partners earn less than the more experienced partners.	7 annual steps.	Fewer reference points.
PROFIT SHARING	By units allocated by an elected national unit assessment committee. Recommendations made by office managing partner. Criteria include portfolio of clients, responsibility, fees generated, and creation of new work.	70% national sharing 30% local "holdback" Profits allocated based on "Salary" component (25%) Experience component (max 12 years) Performance component (balance). Performance is measured by a rating recommended by area managing partner and approved by national executive. Performance is set in advance and measured thereafter	According to partnership points which are awarded by a remuneration committee. Points criteria include seniority, status in firm, administrative duties, professional contributions, and client origination.	According to recommendations made by office managing partner, approved by National Chief Executive. Criteria include technical skills, specialisation, experience, status in the firm and community, ability to generate revenue, professional contributions and responsibility.	One-half each for: 1. Responsibility, reflecting the nature of clients as assessed by immediate superior and state managing partner. 2. Performance against business plan as assessed by immediate superior.	According to reference points awarded by partnership remuneration committee. Partners complete annual assessment form. Criteria include: controlled hours, portfolio of clients, investment in work in progress/debtors and responsibilities including policy board, manpower, regional chief executive, partner in charge.
PARTNERS KNOW WHAT EACH OTHER EARN	YES	Full disclosure of total allocation per partner	YES	Published information limited to average earnings per partner by office at a National level. Full disclosure at individual office level.	YES	YES

B. Partner archetypes

(a) Statistical models and methods

The variables comprise :

Score:	representing the relative remuneration of a partner archetype.
Constant:	represents the remuneration level set for the typical average partner.
Person:	represents the identity of each questionnaire respondent (n = 40).
Type:	represents the archetype (n =*8*).
Level:	represents the level (n=*2*).

The symbols **A, B, C, D, E, F, G, & H** represent the eight archetypes.

Levels are identified as either **H** or **L**, representing, respectively, the relative *maximum* or *minimum* percentage remuneration (level) that would be paid to a particular partner archetype in the firm in the form of share of profit compared to the compensation of an average partner.

H and **L** are in relation to the listing of the responses from partners for each archetype. In **Appendix C**, Column **B**, reply number 1 contains the numbers 130-110. This represents the maximum and minimum that this partner in the firm would pay Archetype **B**. Symbolically the score **BH** is **130** and the score **BL** is **110.**

The variability in scores is attributable to one or more of the following sources:

- differences in the persons who provide the assessment;
- differences expected among the various archetypes;
- average differences between high and low levels;

- variations in differences between high and low levels among archetypes; and
- unexplained variation, due to all other sources, which is presumed to be chance variation for the purposes of statistical analysis.

The statistical model which is fitted to the data includes the terms that are identified above. The model is formed by allowing for the possibility that one person may score higher than another person, but where there are differences, there is consensus among the forty persons making the comparisons among archetypes and levels. Specifically, the presumption is that the expected percentage change in score from one (archetype, level) combination to another is the same for every person even though the actual scores may vary from person to person. This condition is satisfied by the equation

$$\mathbf{log(score) = constant + person\ effect + type\ effect + level\ effect}$$
$$\mathbf{+\ type\ x\ level\ interaction + e}$$

where **e** is the chance component (or 'error term'), and the 'type x level interaction' represents the adjustment needed if the differences in scores between high and low levels are not consistent from one archetype to another.
Representation of the equation on a logarithmic scale is justified on the practical ground that it supports the study of percentage change rather than absolute change in scores among archetypes. Statistical analysis supports this decision by establishing that the consensus model and the assumption of Normality, which are integral to the valid application of the statistical methodology, are only satisfied if the analysis is performed on the logarithmic scale. Further discussion on the reasons for representing the equation on a logarithmic scale can be found, for example, in McPherson [1990], Section 13.3.5.

The pattern of variation in the chance components is assumed to be well approximated by a Normal distribution, and values taken by the chance component are assumed independent. The assumption of independence is of potential concern since there is the possibility of relationships between the sequence of scores which an individual person assigns to the different archetypes.

The analysis is applied on the assumption of independence since

(i) there is no information as to the order in which the types were assessed, and
(ii) on the assumption that it is unlikely that Types were considered in the same order by the different persons.

Other assumptions in the model can be checked using standard statistical approaches. The acceptability of

(i) the consensus assumption in the model, which statisticians refer to as the 'additivity' of the person and treatment effects, and
(ii) the general assumption of additivity on the logarithmic scale, are traditionally assessed by visual examination of the plot of residuals versus predicted values determined from the fit of the model to the data .(McPherson 1990, Section 10.3.5 and Section 13.3.5) The model equation is judged to be acceptable if there is an absence of a relationship between the residuals and fitted values. The suitability of the Normality assumption is judged by visual checking of a Normal probability plot of the residuals (McPherson 1990, Section 10.3.4). This plot is also employed to check for errors in the data. Bartlett's test is employed to check the assumption that variability is constant for scores from different archetypes.

Note that the archetype A is necessarily excluded from the analysis because there is no variation in scores among the persons for this archetype. However, this does not preclude it from being compared with other archetypes in pairwise comparisons.

(b) Statistical analysis

The statistical analyses were undertaken using the SAS statistical computing package. Results from the analysis are provided in **Figures 1 and Tables 4, 5, 6** & **7.** In summary,

- The application of the Analysis of variance technique, see **Table 5,** supports the hypothesis that differences between high and low levels are consistent across archetypes ($p = 0.6$ for the Type x Level interaction), and provides strong evidence ($p < 0.001$) of differences in expected scores among both Types and Levels, and, for interest, strong evidence ($p < 0.001$) that the persons used also show differences in the average scores they assign.
- **Figure 1** provides strong evidence that one outlier score may be in error - that score is identified as the value provided by Person 3 for Type B and Level L. That value was excluded from further analysis.

Model checking based on the analysis of the data after exclusion of the outlier supported the model which is proposed. In particular, the analysis supports the presumption in the model that the forty persons comparing archetypes are consistent in their relative positioning of the archetypes. It is however, noted that the test for 'persons' in the Analysis of Variance (**Table 5**) provides strong evidence ($p = 0.0001$) that assessors differ in the average scores they assign. This result provides strong support for the decision to make allowance for a 'person' difference in the analysis of the data.

Given evidence of differences in the Types, pairwise comparisons were made, using the least significant difference procedure, to establish which pairs of Types are likely to be different. The results are recorded in **Table 6**.

Statistical analysis using the SAS statistical computing package

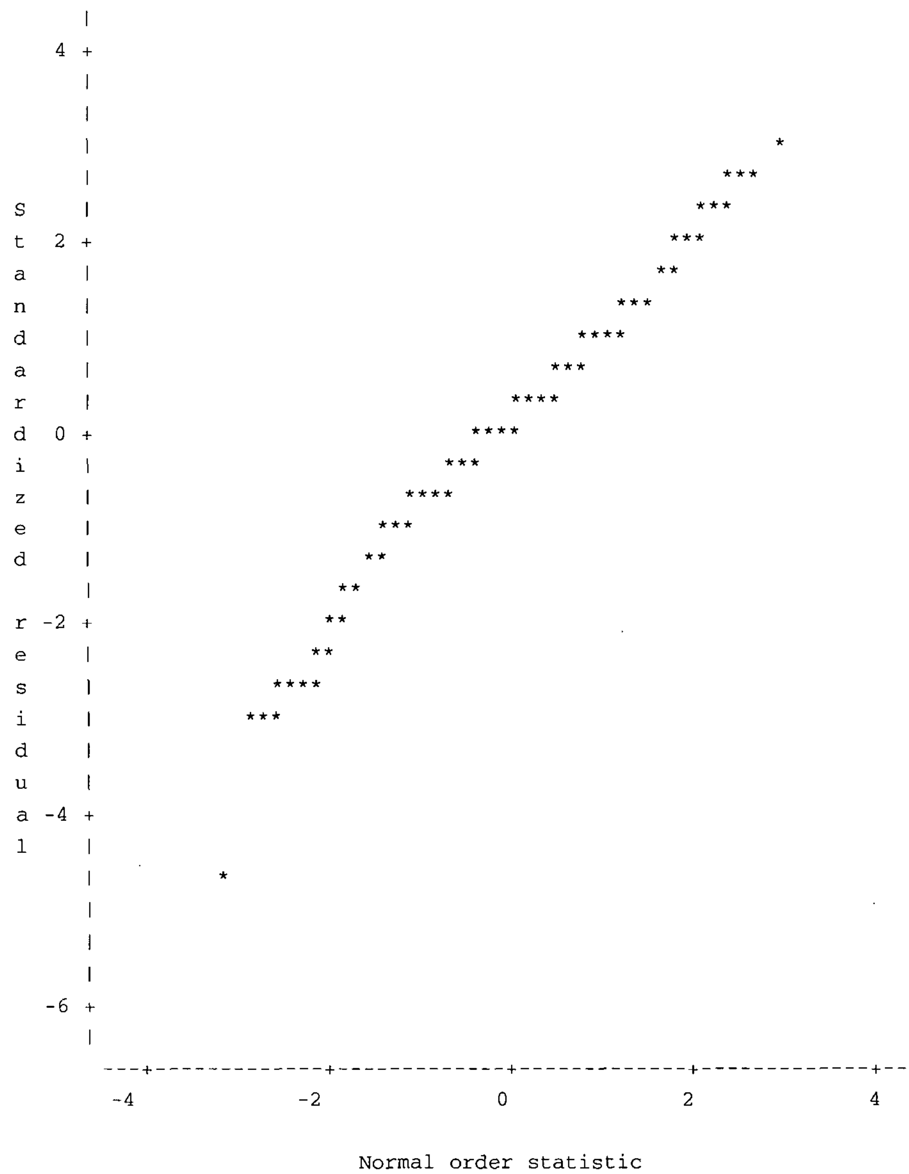
Fit on logarithmic scale assuming an equation

$$\textbf{log(score) = constant + person effect + type effect + level effect}$$

$$\textbf{+ type x level interaction + e}$$

Figure 1

Normal probability plot. Check for possible model error - non-linear trend line. Check for possible data error - a point which is not consistent with trend



The single point which is inconsistent with the trend line in Figure 1 suggests a likely error in the data. The information in Table 4 indicates that the likely error in the data for person 3, type BL. That value is removed from further analysis.

Table 4

Standardised residuals which are greater then 2.0

If there is evidence from a Normal probability plot of a point which is inconsistent with the trend, look for responses with residuals having magnitudes in excess of 2 as potential errors in the data

PERSON	TYPE	LEVEL	LOGSCORE	RES
3	B	L	3.91202	-4.77

Table 5

Analysis of variance table based on an analysis of logarithmically transformed data after removal of odd value

Analysis of variance assuming equation:

Log (score) = constant + person effect + type effect + level effect + type x level interaction + e

Dependent Variable: LOGSCORE

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
PERSON	39	3.2693688	0.0838300	4.11	0.0001
TYPE	6	20.9168117	3.4861353	170.90	0.0001
LEVEL	1	3.9978614	3.9978614	195.98	0.0001
TYPE*LEVEL	6	0.0912674	0.0152112	0.75	0.6131
Error	506	10.3166163	0.0203886		
Corrected Total	558	38.6277938			

R -Square .0.732922

Means for Type

Pairwise comparisons are based on the least significant difference (lsd) procedure. The minimum difference in log means for significance is 0.045 for comparisons not involving Type A, and is 0.032 for comparisons involving Type A. (The distinction is necessary to allow for the fact that the Type A means are measured without sampling error.)

Pairs of archetype means which are not significantly different are assigned to a common grouping. It can be seen in **Table 6** that five groupings are defined, with Type F being the single member of the group having the highest score and Type C being the single member of the group with the lowest score. The comparison of mean scores between high and low levels is presented in **Table 7**.

The comparisons are between means on the logarithmic scale since it is on that scale that the required statistical conditions are met.

Table 6

Results of pairwise comparisons between types to determine which pairs are significantly different. Archetypes in a common grouping are not significantly different.

Type	**No.**	**log mean**	**retransformed mean**	*Grouping*
F	80	4.88	132	1
H	80	4.78	119	2
B	79	4.77	118	2
A		4.6	100	3
D	80	4.51	91	4
E	80	4.50	90	4
G	80	4.48	88	4
C	80	4.29	73	5

Note that for the purposes of comparisons, Type A is assumed to be measured without sampling error.

For purposes of presenting the mean scores for the Types, the 'retransformed means' are recommended because they avoid giving undue weightings to occasional larger scores in a set of scores. These are formed by converting means computed on the logarithmic scale back the original scale of measurement using the exponential function.

Table 7

Mean scores for high (H) and low (L) levels

Level	*No.*	*log mean*	*retransformed mean*
High	280	4.69	109
Low	279	4.52	92
Difference			17

VII. DISCUSSION

A. Profit sharing methods

Regulatory constraints prohibit many professions from entering into partnerships with non accredited professions in Australia. Since the date of collection of the data by Burrows & Black in 1995, Schmidt reported that Arthur Andersen had inaugurated its Australian legal division through the formation of a law firm. The decision to form a legal entity in Australia is not viewed as frame breaking change. It is momentum taken by Arthur Andersen to maintain its range of specialist services attainable within the firm in other locations. However if Andersens' had in the future to merge with the largest law firms or other professional services firms such as advertising agencies and become a multidisciplinary entity subject to different rules and profit sharing arrangements, that would constitute frame breaking change and the firm would no longer be similar to its counterpart in Australia. A single profit pool status does not mean that there will be equal profit sharing in the firm. Arthur Andersen use performance-based profit sharing rules and national performance is always a major determinant of partner earnings.

In this study all firms were specifically asked to indicate the percentage share of profits received by a partner from local, regional (state) and international sources. The results are reported in **Table 1.** A perspective attributed to Richardson in Zimmer & Holmes (1996) is that, as the width of the profit sharing arrangement increases, it becomes more efficient to control shirking by imposing some local performance risk on the local partner. The use of this control mechanism was not apparent from the scope of the profit pools in which the partners share with the exception of Coopers & Lybrand in South Africa and to a lessor extent in Ernst & Young in South Africa. The dilemma facing any compensation committee is to change an existing system that is working exceptionally well.

There are conflicting forces which need to be balanced in any rationale for profit sharing on a regional or national basis. The strengths and weaknesses of regional (divisional) based relative to national (central) based reward schemes are well documented in the management literature. In relation to professional accounting firms, they include;

Strengths

- Local motivation and initiative
- Fast service delivery at grass roots
- Fosters good regional management
- Expedites local decision making
- Good cost control (of shirking)

Weaknesses

- Top class service cannot be delivered countrywide
- People mobility between regions inhibited
- Training inconsistent
- Duplication of administrative costs and effort
- Business opportunities lost

The element of shared legal risk is peculiar to professional accounting firms. A partner who does not see himself as part of a national strategy would be better off to join a local practice. This is because if he stays in a national firm he will not seek the major benefits of diversification in the "Big 6" firm but will still bear the litigation risk. An internal survey of partners selected at random in a "Big 6" firm were asked to indicate the appropriate weighting for shared legal risk in total criteria for share awards. Responses to this question ranged from a low of 10% to a high of 60% and averaged 40%. The relatively large weighting, because of the litigious environment for professional accounting firms, reduces differentiation in the range of earnings multiples in a large firm.

Existing legislation in Australia does not permit limitation of liability through the process of incorporation of professional accounting practices rendering audit and insolvency services. Incorporation will facilitate other methods of profit sharing, structure and archetypal coherence which may better meet the future strategic initiatives of practitioners and regulators. It will negate the existing disproportionate weighting attributable to legal risk in setting performance based share awards in partnerships.

Seniority is an increasingly untenable basis for awarding compensation but should not be superseded by short term performance emphasis. A profit sharing system should be dynamic and should reflect movement upward and downward over a sustained period. Seniority effects should be removed gradually on a rolling performance basis with a constraint on volatility in the order of fifteen percent per annum.

Core traditional specialist services of audit and taxation are offered by all the firms. The range of other specialisations offered by corresponding firms in both countries are not identical but are based on the expertise required in the locations and available in the respective firms.

The "Big 6" firms formerly comprised eight large firms. Following a series of mergers in the 1980s between these firms at a national level, the number of firms was reduced to six firms. Publications by founders and managing partners of the then "Big 8" firms, and other non aligned authors, entrench the view that these firms have nurtured their own ethos and organisational structure (Richards 1981), (Spacek 1989) and (Allen & McDermott 1993). This is supported in the comparative findings of this study in **Table 3** which confirms that there are common themes in profit sharing methods used by national professional accounting firms in different countries.

Common profit sharing methods will facilitate moves to a single profit pool status and corresponding opportunities for firms to utilise the benefits relating to size and international expertise. It was posited in Hypothesis 1 that nationally organised professional accounting partnerships tend to operate through the same structures and profit sharing methods in Australia and South Africa. This hypothesis is confirmed relating to structure in that the *MPB* archetypal form was found to be the corporate forms of organisation among all the "Big 6" professional accounting firms. Regarding the width of the pool (international, national or regional/local) in profit sharing methods the hypothesis is only partially confirmed in that the width of the pool was similar in four firms in both countries. They are Arthur Andersen, Deloitte Touche Tohmatsu, Price Waterhouse and KPMG. Coopers & Lybrand had a predominantly regional focus (90%) in South Africa and Ernst & Young retained a 30% local office component.

B. Partner archetypes

The discussion of the results which follows are based on use of the retransformed means.

Table 8

Relative differences in low and high retransformed mean for each archetype

Archetypes	Relative differences %
A is the average partner	AL - AH 0
B is the rising young superstar	BL - BH 18.51
C is the unproductive older partner	CL - CH 22.72
D is the individualistic solo operator	DL - DH 15.29
E is the hardworking "backroom" accountant	EL - EH 12.94
F is the executive member actively maintaining a practice	FL - FH 20.00
G is the struggling branch manager	GL - GH 18.51
H is the major business getter with few billable hours	HL - HH 21.10

Note the low mean and high mean for the average partner **A** is assumed to be measured without sampling error.

Opinion is most consistent of the salary that should be awarded to partners in categories **D** & **E**, less consistent for **B** & **G** and least consistent for **C, F** & **H**. The objective of any partnership compensation system should be to direct greater reward towards those partners who make the greater sustained contribution towards the partnership.

It is not surprising that archetypes **C, F** & **H** should attract the widest range of opinion. It is in these categories that the greatest opportunities of shirking or grabbing would manifest themselves. Points should be awarded to partners based on their long term performance which will tend to discipline those who are slowing down too much due to age. The discrepancy, in the appropriate profit share for the unproductive older partner archetype **C**, may be due to perceived shirking by partners in this category. This phenomenon will be present to a greater extent where there are inadequate sunset provisions and horizon controls in the partnership agreement for partners nearing retirement age.

Greater certainty could be achieved by offering partners nearing retirement age an inducement to withdraw early from the profit pool. This could take the form of an option to change their remuneration basis in the partnership to a favourable non risk salaried package from a predetermined date before reaching retirement age. This alternative remuneration profile should be compared to full shared legal risk and declining share awards. The partner's profile would remain unaltered from a community or client base.

After **C** greater discrepancies in the appropriate profit shares were revealed for **H** the major "business getter" with few billable hours and **F** the executive committee member actively maintaining a practice. The cause of discrepancies in setting the reward level for partner **H** include the extent to which the partner remuneration system should compensate short term performance. Partners should be encouraged to excel in a way which not only benefits themselves but also supports the overall strategy of the partnership. Ferguson & Wines (1994) reported that newly admitted partners perceived the ability to attract business to be the most important of a range of given criteria towards progress from manager to partner status.

Factors contributing to discrepancy in the appropriate share award to **F** include the value for this particular partner archetype for **what the partner does** in the firm in maintaining national responsibility and strategic contribution to the "brand name" of the firm. The value of the brand name represents the extent of firm specific capital, also known as clients of the firm. An unsolicited point was repeatedly made during the comparative study by partners involved in firm management. They expressed their dissatisfaction with the criteria which tended to dominate the assessment of contribution. These were billable hours and gross revenue generated or financial contribution. Exceptions to retirement provisions to allow partners to retire beyond the normal date specified in the partnership deed usually relate to senior partners of respective firms created at the time of a merger or reorientation of a firm. This is a form of grabbing.

Table 9

Level of logscore

TYPE	N	MEAN	STANDARD DEVIATION
BH	40	4.85343728	0.12985494
BL	39	4.67823024	0.14960817
CH	40	4.39761651	0.12839423
CL	40	4.19452652	0.18029486
DH	40	4.58506785	0.17132132
DL	40	4.44261050	0.17360256
EH	40	4.56355288	0.11168975
EL	40	4.44069952	0.11580569
FH	40	4.96690267	0.17181908
FL	40	4.78410995	0.15012080
GH	40	4.56872878	0.16565675
GL	40	4.39900384	0.17797294
HH	40	4.88272059	0.17733019
HL	40	4.69562104	0.18083503

Examination of the standard deviations of the set of 40 responses of highs and lows for each type (BH, BL, CH etc.) listed in **Table 9** suggests that there is no more variability in the low readings than there are in the high readings after the effects of person to person difference have been removed. Partners have demonstrated just as much confidence in placing the lower limit as placing the upper limit. Bartlett's test for heteroskedasticity provides weak statistical evidence (p=0.025) for differences in variability of assessment among types. However, this is not viewed as being of practical significance given that the ratio of the largest to the smallest standard deviation is less than two, and there is no evidence of a relation between the standard deviations and the means.

As far as **ranking** the eight archetypes, there is clear evidence in **Table 6** that partners agree that **F** should be the highest paid. These partners would receive on average 32%

greater share of profits than the average partner and as much as 181% of profits earned by the lowest group of partners in the firm.

The Burrows & Black (1996) study of profit sharing methods reported the range of profits shares in "Big 6" firms in Australia between newly admitted partners and "typical" established partners whose profit sharing ranges were in about the tenth and ninetieth percentiles of the remuneration ranges of their firms. The ratios varied from a minimum spread of 0.55 : 1.45 to a maximum spread 0.68 : 2.00 in the "Big 6" firms. The result in this compensation study confirms similar likely range of profit spreading in the firm with mean ranges of 0.73 : 1.32 for all partner archetypes. The low point in the range in this study was not necessarily attributable to newly admitted partners. It can be inferred, from the relatively small spread, that additional elements other than earnings such as mutual commitment, trust and development serve to underpin the relationship between partners in a firm. Wide ranges in earnings multiples of partners in the Australian study was not prevalent in the professional accounting firms.

The characteristics of the means for **B & H** are similar so as not to attempt to rank one above the other. While sustained contribution over the long term should be the primary focus of profit sharing, the system should also encourage shorter term performance which is to the direct benefit of the partner and which also supports the overall strategy of the firm.

The means for **D, E, & G** are not significantly different from each other. These groups are ranked together as a single cluster. The retransformed means of categories **D, E & G** are lower than the mean of 100 set for **A** the average partner. It is argued that less than average compensation levels for partners in the firm would be receivable by these partners.

It is also clear that category **C** will be the lowest paid partner in the firm. **C** recorded the lowest mean of the archetypes. Archetype **C** should receive approximately 73 % of the compensation awarded to the average partner.

The difficulty in implementing the above ranking structure, which represents the views of the partners concerning what should be rewarded in a firm, is evident from the actual partnership profile of the partners surveyed. Approximately forty percent of the partners were on the maximum unit of measure of partner profit share and sixteen percent currently received less than 50% of the maximum. This profile would suggest that accounting partnerships currently face the same bloated hierarchical structure problems as industry in the 1990s. Present day conventional wisdom by the protagonists of business re-engineering believe that there is a real need to flatten the structure. There is no simple solution in the partnership scenario because of the fact that partners are owners, managers and employees in a firm.

It was predicted that there would be general agreement on the relative rankings for the eight given partner archetypes in professional accounting firms. In **Table 6** if one has two types that are listed in a common group then their difference is not significantly different from zero. If they appear in different groups then their difference is significantly different from zero. The differences between persons that are tested for are the average scores across all types, that is to establish that the average scores across all types are differing from person to person. The results reflect that there is consensus in the ranking of compensation levels for the given partner archetypes in a firm. It is likely that the relative compensation arrangements of partners in large partnerships would span five levels. They are listed in **Table 10**.

Table 10

Ranking of remuneration according to partner archetypes

Level 1	**F**: This archetype is the executive committee member actively maintaining a practice.
Level 2	**B & H**: They are the rising young superstar and the major business getter who does not put in many billable hours.
Level 3	**A**: This archetype is the average partner.
Level 4	**D, E & G**: This cluster of archetypes comprise the individualistic solo operator, the hardworking "backroom" accountant and the struggling branch manager.
Level 5	**C**: This archetype is the unproductive older partner.

The above table also reflects the probable extent of diversifiable risk in large accounting partnerships.

It was reported that there was a degree of consistency in terms of the ordering provided by the partners. While we found the level at which partners would set remuneration would vary among the forty partners, the relative amounts that they would set from one archetype to another was consistent across the forty partners. This outcome means that it is probably less important that there was not a larger group of respondents.
No attempt was made in this study to compare accounting firms with law firms. However Maister (1993) commented on the result of a similar survey of law firms in the United States of America of what should be rewarded in a law firm. He noted that

> *"Most firms agreed that the older rainmaker (business getter)* ***H*** *and the middle-aged executive committee member* ***F*** *would receive significantly more than any other of the archetypes" (p:285)*

This was followed by **B & G** and thereafter **D & E** as a pairing close to firm average **A** with the lowest rated partner **C.** While the outcome is not too different from partner's views in professional accounting firms, there is no indication that the data were subject to statistical analysis and conclusions were drawn on absolute values. The audience for the analysis given was the general readership of a text. This basis for analysis and discussion of the results has been unreliable and possibly erroneous in this work.

This study confirms the second hypothesis and reveals the degree of consensus and relative reward levels for archetypal roles in large accounting partnerships. There were larger differences among partners perceptions of fair levels of remuneration for three categories, the unproductive older partner, the business getter and the executive committee member actively maintaining a practice or more commonly known as local office managing partner.

This situation in partnerships with a large numbers of partners begs the question of the merits of limited disclosure of partner profit shares. Maister (1993) is of the view that there are as many risks as benefits to disclosure of every partner's compensation. He reports that

> *"Andrew Grove, in his book High Output Management, observes that if people are concerned about their absolute levels of compensation, then they can be satisfied. However, if their focus is on relative standing, then they can never be satisfied." (p:266)*

The disclosure of exact amounts of income to all partners in the comparative study indicates that a limited disclosure view is not supported in professional accounting firms. There is also little evidence of partnership defections.

Despite the ability to diversify the unsystematic risk of specialisation in large accounting firms, there remains a material amount of unsystematic risk through partner roles and individual characteristics of the partner. In these firms there is little ability to reduce diversifiable or unsystematic risk through purchasing a share greater share of profits.

VIII. LIMITATIONS

A few cautionary remarks about the generalisability of the results are in order. This study clearly deals with large firms in English-speaking countries where there is a considerable degree of similarity of legal codes. In non English speaking countries the picture may be different. However the "Big 6" giant multinationals are located in most parts of the world. There is increasing pressure on member countries of the International Accounting Association to adopt International Accounting procedures and standards of practice leading to greater similarity of accounting practices.

A difficulty with comparing data on professional partnerships with previously published data is that it is impossible to remove the influence of organisational size. These differences in sampling frames will therefore make comparisons illustrative rather than definitive illustrative. Given that the purpose of this and prior research is of an exploratory nature, the procedures followed are considered reasonable and appropriate.

If a variable "country" was added to the model used in this study to test the second Hypothesis, this would reveal significant differences in profit sharing in firms in South Africa and Australia. This was not capable of being tested because the data was unavailable in Australia.

While there is no reason to doubt the external validity of the results of the compensation survey, generalising beyond the firm is problematic. One has to accept that the group from which the researcher has information from may be a select group in some sense and the others may give a different type of response.

IX. CONCLUSION

The theoretical discussion and results can be summarised in terms of what advice can be given to prospective partners of and existing partners in large professional accounting firms :

- If there is the opportunity for firms to increase the scope of the profit pool beyond national boundaries it can be expected that there will be few differences in profit sharing methods in different countries.

- In terms of range of earnings, a wider scope of the profit pool will not imply the need for greater variations in terms of profit shares between partners of large national firms.

- It is likely that there will be variations in partner remuneration according to individual partner roles in a firm. Partners whose performance significantly exceeds expectations can expect progressive share award earnings spanning three levels over their career with the firm. The majority of established partners, whose performance meets expectations, can expect to receive share awards commensurate with the average partner.

- There is momentum for geographically dispersed firms to converge into single profit sharing entities. The move follows a path similar to that taken by companies in industries such as information technology and engineering designed to create a transnational organisation able to call on a global pool of consultants.

This research direction is by no means complete. Some opportunities for further research include:

How do nationally organised accounting firms share profits in countries characterised by organisational forms other than partnerships?

How do firms structure and fund the capital requirements of the firm?

How do firms establish sunset procedures for partners of the firm?

How do firms establish performance based partner share awards ?

This work confirms that there are common themes in profit sharing methods in geographically dispersed large accounting firms. The existence of common profit sharing methods in different countries lends itself to the possibility of a move to a single profit pool status. A single profit pool status would in turn facilitate opportunities for firms to utilise the benefits relating to size and international expertise and obtaining work that uses this competitive advantage. The firm may also reduce its risk by rationalising its operations and reduce the exposure to work in which it does not have a competitive edge.

X. KEY TERMS

Archetype - The original model or pattern from which copies are made, or out of which later forms develop; prototype ie. the professional partnership P^2 form.

"Big 6" - The collective name given to the six largest international professional accounting firms.

Convergence, Momentum and Evolution - Used to describe change that supports or builds upon the existing structure, systems and values within a particular archetype.

Interpretive - Used for interpreting; explicable.

Grabbing - is an extraction of a larger than previously agreed share of the profits by threatening to depart.

Leaving - is a withdrawal from the partnership with a portfolio of the firms clients.

MPB-form - The term given by Cooper, Hinings, Greenwood and Brown(1994) to the discovery of a second archetype in the professional accounting services industry termed a Managerial Professional Business.

P^2-form - The term given by Greenwood, Hinings and Brown (1990) to the discovery of the initial archetype in the professional accounting services industry because of the twin components of Partnership and Professionalism.

Reorientations - The term used to describe quantum or revolutionary change involving movement from one design archetype to another.

Shirking - is a failure of a partner to do a fair share of the work.

Systematic risk - Systematic risk in professional accounting partnerships is the extent to which the partner's earnings from the firm vary with overall economic conditions.

Tracks - The various forms of change that organisations follow. The notion of tracks also alludes to consistency of direction.

Typology - The study and interpretation of types.

Unsystematic risk - Unsystematic risk is the variation in earnings from the firm resulting from the individual characteristics of a particular partner.

XI. REFERENCES

Alchian, A.A. & Demsetz, H. 1972.
Production, Information Costs, and Economic Organisation. American Economic Review, 62 pp. 777-795.

Allen, D.G., & Mc Dermott, K. 1993.
Accounting for Success: A history of Price Waterhouse in America 1890-1990. Harvard Business School Press, Boston, MA.

Ashkanasy, N.M. & Holmes, S. 1995.
Perceptions of Organisational Ideology Following Merger: A longitudinal study of merging accounting Firms, Accounting ,Organisations and Society pp. 19-34.

Baiman, S. 1990.
Agency Research in Managerial Accounting: Accounting ,Organisations and Society pp. 341-371.

Baker, D.D. & Cullen, J.B. 1993.
Administrative Reorganisation and Configurational Context: The contingent effects of Age, Size and Change in Size. Academy of Management Journal 36: pp. 1251-1277.

Blau, P.M. 1970.
A formal theory of differentiation in organisations. American Sociological Review, 35: pp. 201-318.

Bluedron, A.C. 1993.
Pilgrim's Progress: Trends and convergence in Research on Organisational Size and Environments. Journal of Management 19: pp. 163-191.

Brownell, P. 1995.
Research Methods in Management Accounting. Coopers & Lybrand Accounting Research Methodology Monograph No.2 Victorian Printing, Blackburn, Australia.

Burrows G.H. & Black C. 1996
Profit sharing between partners in Australian "Big 6" accounting firms. Paper presented to the European Accounting Association conference, Paris, France.

Child, J. & Kieser, A. 1981.
Development of Organisations over time. In P.C. Nystrom & W.H. Starbuck (Eds.), Handbook of Organisational Design, : pp 28-64. Oxford: Oxford University Press.

Clegg, S. 1981.
Organisation and Control. Administrative Science Quarterly, 26: pp. 545-562.

Coase, R.L. 1937.
The nature of the firm. Economica November 1937 pp. 386-405.

Cooper, D.J., Greenwood, R., Hinings, C.R. & Brown, J. 1994.
Organisational Archetypes in Professional Firms. Paper presented to the Fourth Biennial Management Accounting Research Conference, Sydney, Australia.

Crasswell, A.T. 1989.
Who audits Australia? Accounting & Finance Foundation. University of Sydney.

Cyert, R., & March, J. 1963.
A behavioural theory of the firm. Englewood Cliffs, NJ: Prentice-Hall.

Dunn, B. 1989.
Paying partners: A Challenge for the 1990s. Journal of Accountancy (June 1989) pp. 117-122.

D'Aveni, R.A. 1989.
The aftermath of organisational decline: A longitudinal study of the strategic and managerial practices of declining firms. Academy of Management Journal 32: pp. 577-605.

Doty, D.H., Glick, W.H. & Huber, G.P. 1993.
Fit, Equifinality, and Organisational Effectiveness: A Test of Two Configurational Theories. Academy of Management Journal 36: pp. 1196-1250.

Ferguson, C. & Wines G. 1993.
Admission to partnership in Australian "Big 6" Firms, Accounting Research Journal pp. 26-35.

Gilson, R.J. & Mnookin, R.H. 1985.
Sharing among the human capitalists: An Economic Enquiry into the Corporate Law Firm and How Partners Split Profits. Stanford Law Review pp. 313-392.

Greenwood, R., Cooper, D.J., Hinings, C.R. & Brown, J.L. 1993.
Biggest is best? Strategic assumptions and actions in the Canadian audit industry. Canadian Journal of Administrative Sciences 10: pp. 308-321.

Greenwood, R. & Hinings, C.R. 1988.
Organisation Design Types, Tracks and the Dynamics of Strategic Change. Organisation Studies, 9 : pp. 293 -316.

Greenwood, R. & Hinings, C.R. 1993.
Understanding Strategic change: the contribution of archetypes. Academy of Management Journal 36: pp. 1052-1081.

Greenwood, R., Hinings, C.R. & Brown, J. 1990.
" P^2 Form" Strategic management: Corporate practices in the Professional Partnership. Academy of Management Journal 33: pp.725-755.

Greiner, L. 1972.
"Evolution and revolution as organisations grow". Harvard Business Review (July-August) pp. 37-46.

Hedburg, B., Nystrom, P & Starbuck, W. 1976.
Camping on seesaws: Prescriptions for a self designing organisation, Administrative Science Quarterly 21: pp 41-65.

Hinings, C.R. & Greenwood, R. 1988.
The Dynamics of Strategic Change. Oxford, Blackwell.

Hinings, C.R., Greenwood, R. & Brown, J. 1991.
Change in an autonomous professional organisation. Journal of Management Studies 28: pp. 375-394.

Holmes, S. & Zimmer, I. 1995.
Economies of Scope in Accounting Partnerships. Accounting Research Journal pp: 88-94.

Ketchen,. D.J. Jr., Thomas, J.B. & Snow, C.C. 1993.
Organisational Configurations and Performance: A comparison of Theoretical Approaches. Academy of Management Journal 36: pp. 1278-1313.

Kikulis, L.M., Slack T. & Hinings, C.R. 1995.
Sector -specific patterns of organisational design change. Journal of Management Studies 32: pp. 67-100.

Kimberley, J.R. 1976.
Organisational size and the structuralist perspective: A review, critique, and proposal. Administrative Science Quarterly, 21: pp. 571-597.

Landis, M. 1986.
Partnership Profit sharing. Chartered Accountant in Australia (July) pp. 34-39.

Lenz, K.R. & Mundrick, H.L. 1990.
Partner Compensation. The CPA Journal (July) pp. 8-15.

Maister, D.H. 1993.
Managing the Professional Service Firm. The Free Press, 1230 Avenue of the Americas, New York, N.Y. 10020.

McKinley, W. 1992.
Decreasing organisational size: To untangle or not to untangle. Academy of Management Review, 17: 112-123.

McPherson, G. 1990.
Statistics in Scientific Investigation. Its Basis, Application, and Interpretation. Springer Verlag, New York.

Meyer, A.D., Tsui, A.S. & Hinings, C.R. 1993.
Configurational approaches to organisational analysis. Academy of Management Journal 36: pp. 1175-1195.

Miller, D. & Friesen, P.H. 1984.
Organisations; A Quantum View. Prentice-Hall International, Engelwood Cliffs, New Jersey.

Mintzberg, H. 1979.
The Structuring of organisations. Prentice-Hall International, Engelwood Cliffs, New Jersey.

Neumann, W.L. 1994.
Social research methods: Qualitative and quantitative approaches. Allyn & Bacon, Boston.

Morgan, G. 1990.
Organisations in Society. Macmillan, London.

Ostroff, C. & Schmitt N. 1993.
Configurations of organisational effectiveness and efficiency. Research Note; Academy of Management Journal 36: pp. 1345-1361.

Rachlin, N.S. 1979.
New thoughts on Partner Compensation. Journal of Accountancy pp. 66-73.

Richards, A.B. 1981.
Touche Ross & Co. 1899-1981. Touche Ross London 1981.

Romanelli, E. & Tushman, M.L. 1994.
Organisational Transformation as Punctuated Equilibrium: An Empirical Test. Academy of Management Journal 37: pp. 1141-1166.

Schreyogg, G. 1980.
Contingency and choice in Organisation Theory. Organisation Studies pp. 305-326.

Scott, W.R. 1987.
The adolescence of institutional theory. Administrative Science Quarterly 32: pp. 493-511.

Spacek, L. 1989.
The growth of Arthur Andersen & Co. Garland, New York.

Stevens, M. 1981.
The Big Eight. Macmillan, New York.

Sutton, R.I. and D'Aunno, T. 1992.
Building a model of workforce reduction that is grounded in pertinent theory and data: Reply to McKinley. Academy of Management Review 17: pp. 124-137.

Tushman, M.L. & Romanelli, E. 1985.
Organisational evolution: A metamorphosis model of convergence and reorientation. In L.L. Cummings & B.M. Staw (Eds.), Research in organisational behaviour 7: pp. 171-222. Greenwich, C.T.: JAI Press.

Van Horne, J. 1980.
Financial Management and Policy. 5th Edition. pp. 49-77.

Zimmer, I & Holmes, S. 1996.
The structure of Profit Sharing Schemes in Accounting Partnerships.
Occasional paper presented at the University of Tasmania, Hobart, Australia.

APPENDIX A - TABLES OF ELEMENTS OF THE P^2 AND *MPB* FORMS

A. Elements of the P^2 form

Interpretive Scheme

Governance	Fusion of ownership and control
	A form of representative democracy
	Revolving managerial tasks among the owners
	Local office as the centre of commitment
Primary task	Professional knowledge
	Peer control
	Work responsibility as indivisible
	Strong links with clients
	Widely distributed authority
	Minimum hierarchy

Systems

Strategic control	Rationality: low analytical emphasis
	Interaction: consensus decision-making
Marketing-Financial control	Specificity of targets: precise financial targets
	Tolerance of accountability: high tolerance
	Time orientation: short term
Operating control	Range of involvement: low range
	Primary focus of involvement: professional standards and quality of service
	Decentralisation-centralisation: decentralised

Structure

Differentiation	Level of specialisation: low Criteria of specialisation: professional divisions and personal interest
Integration	Use of integrative devices: low Use of rules and procedures: generally low, but standards and quality

B. Elements of the Managerial Professional Business MPB form.

Interpretive Scheme

Effectiveness	Management
Efficiency	Client service
	Competition
	Marketing and growth strategies
	Rationalisation
	Productivity

Systems

Strategic control	Rationality: moderate analytical emphasis
	Interaction: more directive decision-making
Marketing-Financial control	Specificity of targets: precise financial and market targets
	Tolerance of accountability: low
	Time orientation: short term and long term
Operating control	Range of involvement: medium range
	Primary focus of involvement: professional standards, quality of service, planning, marketing and compensation
	Decentralisation-centralisation: more centralisation

Structure

Differentiation	Level of specialisation: medium
	Criteria of specialisation: professional divisions and functional difference

Integration	Use of integrative devices: medium development of hierarchy and cross-functional teams Use of rules and procedures: still emphasis on standards and quality but more rules generally

(Source: Cooper et al 1994 *Organisational Archetypes in Professional Firms*, pp. 24-26)

APPENDIX B - PARTNER COMPENSATION SURVEY QUESTIONNAIRE

Memorandum	**date/datum**
to/aan All Partners/Directors	**from/van**
for the attention of/vir aandag van	**name of writer/naam van skrywer**
your reference/u verwysing	**our reference/ons verwysing**
subject/onderwerp	

PARTNER COMPENSATION

Would you like to take part in an informal survey of the attitude of partners to partner compensation? If so, please read on!; there is nothing compulsory about this exercise and any information you provide will obviously be kept confidential. You will be provided with feedback on the findings if you respond.

The purpose of the survey is merely to see how you would deal with different partners. As you are aware, a Partner Merit Rating Committee is looking at merit rating and compensation and your response would be helpful to ensure that no significant attitudes of partners are overlooked.

Thank you in anticipation. I would appreciate receiving your reply by XXXX 1996.

Regards,

SURVEY

In 1983, David Maister conducted a simple study of compensation practices among law firms to see how different firms would deal with different types of partners.

With the assistance of Steven Brill, the editor of *The American Lawyer*, and Bruce Heintz, a law firm consultant, he invented seven archetypal partners of a fictional firm and provided statistical and descriptive information on each. Those who participated in the study were asked to indicate for each archetype what the likely range of compensation (high and low) would be in their firm relative to the compensation of an average partner.

Each of the archetypes can be given a brief label:

A is the average partner,

B is the rising young superstar,

C is the unproductive older partner,

D is the individualistic solo operator,

E is the hardworking "back room" lawyer,

F is the executive committee member actively maintaining a practice,

G is the struggling branch manager, and

H is the major rainmaker who doesn't put in many billable hours.

The Archetype: Eight Partners of a Fictional Firm

	Partner A	Partner B	Partner C	Partner D	Partner E	Partner F	Partner G	Partner H
	The typical lawyer	Young and entrepre-neurial; has built a loyal group of associates around him	Seems to have run out of gas; suspect some personal problems at home	A prima donna solo operator; likes high visibility cases; a little too glib	"Journey - man" lawyer; works hard, but brings in little business; relies on others; a "partner associate"	Executive Committee member; tries to do everything; major force in the firm	Manages branch office, which has poor profit-ability	Major rain-maker; on clients and work for others to handle
Billable Hours Worked	100	141	74	105	115	92	95	35
Non-billable Hours Worked	100	152	51	92	60	243	156	150
Dollars Managed	100	198	33	45	55	129	90	112
Write-off Performance	100	120	50	102	101	150	63	132
Unbilled Dollars	100	105	59	40	93	121	80	108
Collections Performance	100	110	72	50	95	115	83	103
Business Getting	100	200	25	73	15	175	74	312
Billing Rate	100	64	129	104	103	112	108	139
Age	38	34	55	42	41	49	49	60

Department	A Corporate	B Real Estate	C Probate	D Tax	E Litigation	F Corporate	G Corporate	H Corporate
Quality of Legal Work	Average	Excellent	Average	Excellent	Average	Above Average	Slightly Above Average	Average
External Respect in Community	Average	Excellent	Not Known Outside	Very Visible	Not Well-Known	Very Well Known	Thought to be Well Known	Superb
Co-operation with other partners	Average	Not Good: Some-what Territorial	Very Co-operative	Not Very Co-operative	Very Willing	Very Well Liked	Not Perceived as Co-operative	Not Co-operative
Ability to Develop Associates	Average	Outstand-ing	Poor	Poor	Average	Outstand-ing	Not Enough Evidence	Not Good
Committee Work & Firm Management	Average	Not Much	Willing But Rarely Chosen	None	Will Serve When-ever Asked	Extensive	A Great Deal	Used To Be Involved But Not Anymore
Compensation	100	?	?	?	?	?	?	?

All numbers shown (except age) are expressed as percentages of the average for all the firm's partners. Figures above 100 represent superior performance: Thus, for example, Partner D worked 5 percent more billable hours than the firm average, but 8 percent fewer non-billable hours. When it came to the amount of work performed for his clients but not billed (unbilled dollars), Partner D's performance was only 40 percent, far less than the firm average. Similarly, his performance on collections was 50 percent: He took twice as long to collect as the average partner.

RESPONSE

NAME

COMPENSATION SURVEY

PARTNER	HIGH	LOW
A	100	100
B		
C		
D		
E		
F		
G		
H		

For example, having considered the information about Partner B you may decide he would be 50% above A at maximum and 10% at minimum; then insert 150 and 110. You may decide that another partner is below average and that the high is 90 and low 70.

APPENDIX C - PARTNER COMPENSATION SURVEY DATA

Listing Of Responses From Partners For Each Archetype

	Archetypes							
Reply Number	**A**	**B**	**C**	**D**	**E**	**F**	**G**	**H**
1	100- 100	130-110	80- 70	95- 85	90- 80	115- 110	90- 80	105- 95
2	100- 100	130-110	85- 75	95- 85	85- 75	130-110	110- 90	130-110
3	100- 100	120- 50	80- 75	100- 90	100- 90	140-100	90- 75	120- 90
4	100- 100	120-110	80- 70	100- 95	85- 75	130-120	110-105	130-120
5	100- 100	120-110	80- 70	80- 80	90- 90	150-115	120-110	130-110
6	100- 100	110-100	80- 70	100- 90	90- 80	140-130	100- 90	130-120
7	100- 100	180-120	80- 50	100- 80	120- 80	200-120	140-100	150-80
8	100- 100	120-100	90- 80	120-100	110-100	140-120	120-100	130-110
9	100- 100	130-115	85-70	120-105	90- 70	160-130	90- 75	170-140
10	100- 100	140- 80	120-80	140- 70	100- 80	140-120	140-90	140- 80
11	100- 100	120-100	75-75	110-100	95- 90	140-125	75- 75	140-125
12	100- 100	125-100	80- 60	150-120	100- 90	150-130	100-70	90- 70
13	100- 100	140-110	90- 55	100- 90	105- 80	160-125	100-70	150-120
14	100- 100	130-110	90- 60	100- 90	95- 85	155-130	105-80	160-130
15	100- 100	140-115	75- 50	80- 55	110- 90	175-150	75- 50	140-100
16	100- 100	150-130	70- 60	120-110	80- 70	180-160	130-120	160-150
17	100- 100	90- 65	80- 75	110-105	100-100	140-130	70- 60	120-110
18	100- 100	120-105	80- 60	90- 80	105- 95	110-100	80- 60	110-100
19	100- 100	150-120	75-50	130-110	100-100	180-130	110-100	140-110
20	100- 100	130-110	80- 75	100- 90	100- 90	150-110	90- 75	120-100
21	100- 100	130-110	80- 75	100- 90	100- 90	150-110	90- 75	120-100
22	100- 100	130-110	80- 75	100- 90	100- 90	150-110	90- 75	120-100
23	100- 100	130-110	80- 75	100- 90	100- 90	150-110	90- 75	120-100
24	100- 100	140-120	80- 60	90- 90	100-100	140-120	110-100	110-100
25	100- 100	175-150	112-88	82- 78	80- 75	250-200	80- 75	225-175
26	100- 100	120-100	80- 65	110- 80	120-100	130-110	100-90	110- 90
27	100- 100	130-110	80- 70	90- 70	100- 90	140-110	100-90	140-110
28	100- 100	120- 90	85- 75	105- 90	105- 90	120-100	85- 75	115-100
29	100- 100	120-100	85- 75	105- 95	105- 90	115- 95	90- 75	115- 95
30	100- 100	140-120	90- 70	110- 90	110- 90	160-140	90- 70	140-120

Reply Number	A	B	C	D	E	F	G	H
31	100- 100	160-150	70- 60	90- 80	100- 90	170-160	100-90	160-150
32	100- 100	110-100	70- 50	80- 70	90- 80	130-110	90- 70	130-110
33	100- 100	130-110	90- 75	95- 85	100- 90	160-120	95- 80	150-120
34	100- 100	130-120	60- 40	60- 50	70- 60	140-120	90- 80	130-120
35	100- 100	130-115	90- 80	90- 75	90- 80	115-105	80- 70	120-110
36	100- 100	130-115	90- 75	80- 70	85- 75	120-110	85- 75	115-105
37	100- 100	100- 80	70- 50	80- 80	80- 80	110-100	80- 80	110-100
38	100- 100	120-100	90- 80	90- 80	90- 70	140-110	120-100	160-120
39	100- 100	120-110	80- 75	100- 95	90- 85	150-135	110-100	200-150
40	100- 100	110-100	60- 50	80- 70	95- 90	105-100	90- 85	110-105

Central Queensland
UNIVERSITY

Form USTH1

CENTRAL QUEENSLAND UNIVERSITY LIBRARY

DECLARATION TO ACCOMPANY THE DESPOSIT OF A DISSERTATION

Author: ______________________________

Dissertation Title: ______________________________

____

____

Date: ____________

Author's Declaration

Authors should select one of the options set out below.
Rule out those which do not apply.

1. This dissertation may not be copied in whole or part without my permission.

   or

2. Copies of up to ten percent (10%) may be made for the purposes of research or study with a view to publication.

   or

3. Copies of this dissertation in whole or in part may be made for the purposes of research or study with a view to publication and with the Librarian's permission.

____
Signed

C:\PM5\FILES\DISERT.PM5