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OF
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THE IMPACT OF EMPLOYEE SHARE-OWNERSHIP SCHEMES ON ORGANISATIONAL PERFORMANCE

BY

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Abstract

This study investigates two key questions. First, is there a link between Employee Share-Ownership schemes and organisational performance? Second, through which mechanisms do these schemes influence organisational performance? The dominant view upheld by researchers as well as share-ownership advocates is that Employee Share-Ownership schemes affect performance by enhancing organisational commitment. The less prevalent view suggests that these schemes act as 'golden handcuffs' and therefore, enhance performance by reducing employee turnover.

The validity of these claims is assessed in this thesis by conducting a quantitative analysis based on the 1998 Workplace Employee Relations Survey (WERS98) cross-section data-set. The WERS98 data set is one of the largest nationally representative data-sets in the world, providing establishment level and individual data based upon 2,192 workplaces in the Britain and 28,230 employees from these workplaces.

The findings suggest that share-ownership schemes are associated with higher performance however these performance benefits are yielded upon the fulfilment of certain conditions. Furthermore, the thesis finds no support for the widely held view that share-ownership schemes might impact upon performance by enhancing affective commitment. Instead, there is some evidence to suggest that these schemes may be associated with reduced levels of commitment thereby challenging their effectiveness as a motivational tool. There is some support, however, for the 'golden handcuff' theory which suggests that Employee Share-Ownership schemes make it expensive for employees to quit, thus reducing employee turnover and consequently enhancing organisational performance. This interpretation of the results draws attention to the relevance of continuance rather than affective commitment in the share-ownership/performance relationship; however, the 'golden handcuff' theory explains the higher labour productivity but not the higher financial performance observed in share-ownership firms. Consequently, there is a need for further investigation into alternative mechanisms through which share-ownership schemes influence performance.

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Chapter 1

Employee Share-Ownership Schemes and Organisational Performance

1.1 Introduction

Competitive pressures in the contemporary business environment have intensified the age old drive for profit maximisation. Thus modern management has become increasingly preoccupied with the question of how to increase economic performance (Blasi et al. 2003). This growing interest in enhancing performance outcomes exists in an environment characterised by ideologies propagating economic and industrial democracy, a slow collapse of the fixed-wage, a decline of trade union activity, privatisation of economies and the increased threat of hostile takeovers.

It is in this context that Employee Share-Ownership (ESO) schemes have been identified as an effective tool for achieving the objective of profit maximisation (Poole and Jenkins 1990: 1). The dominant view upheld by the proponents of share-ownership is that ESO schemes have a positive impact upon organisational performance by inspiring feelings of affective commitment amongst employees and thereby aligning employee interests with that of the organisation (Rosen 1990; Rosen and Quarrey1987). This view was supported by a majority of researchers (Bell and Hanson 1987; Blasi et al. 2003; Conte and Svejnar 1988; Klein 1983; Rosen and Granados 1983; Sesil et. al. 2002). Similar support was also rendered by political figures such as US senator Russell Long (1970), the then UK Secretary of State for Employment, Michael Portillo (1995), the late UK Financial Secretary, Nicholas Ridley (1981), and practitioners such as Louis Kelso, a US attorney and investment banker in the 1950s, Spendon Lewis, founder of the retail firm, the John Lewis Partnership and Michael Quarrey, former project director of the National Centre for Employee-ownership.

The attainment of increased competitiveness and profit maximisation through greater co-operation fostered by ESO schemes was articulated in a speech by Kenneth Clarke, an ex-government minister in Britain:

"....Successful companies in a modern economy need to involve their employees...Share-Ownership, Profit-Related Pay, Employee Share-ownership Plans, co-operatives-they can all help us to achieve the essential goals of competition and cooperation; competition in our economy and cooperation within our companies" (Clarke 1987 in Nichols and Davidson 1991).

The widespread appeal of the employee share-ownership concept was highlighted by Kruse (2002) and Blair and Kruse (1999), who stated that:

"In survey after survey, members of the general public, working people in particular, say that they believe that employees in substantially employee-owned firms work harder and better- and are more likely than outside shareholders to vote their shares in the long-term best interests of the company" (Kruse 2002: 65; Blair and Kruse 1999: 28).

Only a small proportion of researchers challenged this view by suggesting that these schemes may not raise productivity or that the productivity outcomes would be observed only under certain conditions (Blinder 1990; Blanchflower and Oswald 1988; Kruse 1992; Long 1980). Fewer argued that ESO schemes increase organisational performance through routes other than higher affective commitment. Hence, there is limited acceptance of the argument that the higher performance in share-ownership firms can be explained by the lower levels of employee turnover induced by the 'golden handcuff' effect of share-ownership schemes (Richardson and Nejad 1986; Wilson et al. 1990). The sceptics put forth the following arguments for disagreeing with the majority view that these schemes enhance performance by acting as a motivational tool.

First of all, they pointed out that the success of schemes in aligning employee and employer interests are reliant upon whether the employees see a clear connection between an increase in their income and changes in their own behaviour rather than attributing it to the behaviour and decisions of others (Richardson and Nejad 1986).

There is a chance that employees may not see this connection because, employee rewards may be dependent upon share prices which, in turn, are reflective of market expectations rather than individual employee efforts (Blair and Kruse 1999; Kaufman and Russell 1995; Wells 2003). However, in situations where employees are in positions of authority, or a majority of employees own a majority of the equity stake, the employee-owners are in a position to influence the performance outcomes. Therefore, the connection between effort and reward may be clearer for managerial employees than for the non-managerial employees who have less power to influence business decisions. Similarly, the connection between efforts and rewards may be clearer when employees own a comparatively large equity stake.

However, if ownership is concentrated in the hands of top management there is a possibility that managerial decisions may be guided by self-interest rather than shareholder-interest, particularly when there are no outside block-holders to keep a check on managerial decisions (Park and Song 1995). There is also a danger of top management encashing the options and exiting the firms (Culpepper et al. 2004; Wells 2003). Furthermore, in case of collective ownership, the reward is based upon group effort rather than individual effort and consequently there is a possibility of free-riding (Alchian and Demsetz 1972 in Pendleton 2001; Richardson and Nejad 1986). If the majority of the employees try to free-ride upon the efforts of the others, then collective ownership may not yield the desired benefits. Finally, majority-ownership may lead to dilution of individual incentives. This point was well illustrated by Blair and Kruse (1999) who argue that, 'the employee-controlled firms would be inefficient and that employee-owners would have perverse incentives (they might, for example, be too risk averse) or that the incentive effects would be too diluted in the large firms, where the actions of any one employee are unlikely to have a direct or obvious effect upon share prices.'

Second, the ability of schemes to motivate employee-owners is questioned (Richardson and Nejad 1986). It was argued that employee-owners may not have a favourable perception of the ESO schemes. This may be because the employee-owners do not perceive ESO schemes as a tool for greater financial rewards. Instead, they may view it as a management strategy for transferring an unreasonable burden to the employee-owners (Pendleton 2001). This argument is particularly relevant in a

market where stock prices are low or unstable and when employees make a financial investment in order to own shares. However, the argument may not be valid in recent times, whereby shares are allocated to employees free of cost or at discounted rates over and above their base pay. Hence, the individual risk associated with employee share-ownership is significantly reduced (Poutsma and Nijs 2003). Another reason for unchanged behavioural outcomes could be that the financial rewards associated with ESO schemes may not be sufficient for altering behaviour of the employee-owners. Therefore, share-ownership establishments in which employees get a small stake in the equity or where the shareholdings have low financial value may not yield the desired behavioural changes (Richardson and Nejad 1986). This may be due to a dilution of incentives.

Even if it is assumed that the schemes are perceived by employees as financially rewarding, the exact effect of the schemes on employee effort is difficult to predict. One school of thought emphasises that greater financial rewards associated with employee-ownership have a positive effect upon employee attitudes and behaviour (French and Rosenstein 1987; Klein 1987). Hence greater commitment, reduced employee turnover and absenteeism are anticipated in share-ownership establishments (Blair and Kruse 1999; Klein and Hall 1988; Richardson and Nejad 1986). Others argue that windfall gains associated with employee share-ownership may foster short-termist profit maximisation behaviour and accelerate the decision to quit (Culpepper et al. 2004; Wells 2003). Though vesting procedures may prevent employees from liquidating their shares before a certain period of time, exceptionally long vesting periods may have a de-motivating effect on the employees. For example, schemes which do not mature for 10 years or until the employee retires, may not be perceived as financially lucrative by employees and might have no effect upon their behaviour.

Even if it is assumed that the share-ownership schemes reduce voluntary turnover there is speculation as to whether reduced voluntary turnover due to financial considerations will translate into improved labour productivity (Luchak 2003). Thus, the question is whether reduced employee turnover would be achieved at the expense of lower productive efficiency. On the one hand, it is argued that an improvement in the perceived income/effort ratio will reduce voluntary turnover and absenteeism and

increase the quality of applicants for vacancies, which in turn will raise output per head and reduce unit labour costs. Furthermore, the reduced turnover will increase the profitability of training expenditure, thereby encouraging further investment in firm-specific human capital, which in turn will increase output per head and reduce unit labour costs (Richardson and Nejad 1986). On the other hand, Freeman and Medoff (1984) argue that productivity increases might be at the cost of reduced profitability, particularly if the productivity increases coexist with increased financial rewards.

Finally, some critics proposed that share-ownership *per se* is not sufficient for yielding desired performance outcomes. Instead, they offer a contingency argument for explaining share-ownership and performance behaviour. They argue that the desired performance and attitudinal outcomes could be achieved if employee share-ownership firms would give employees enhanced decision-making rights and authority (Blair and Kruse 1999; Conte and Svejnar 1990; Kaufman and Russell 1995; Klein 1987). However, enhanced participation in decision-making has been difficult to achieve. Evidence shows that employee-owners have little or no impact upon decision-making in their firms (Blasi and Kruse 1991; Russell 1989).

1.2 The growth and development of Employee Share-Ownership schemes

It is evident that, even though there is a strong lobby advocating the performance benefits associated with ESO schemes, a certain amount of reservation regarding the practical application of these schemes exists. Despite the arguments put forth by the sceptics, the survival of the schemes and their phenomenal growth make it difficult to dismiss them as a management fad. In the UK, a remarkable increase in share-ownership schemes occurred in the private sector between 1980 and 1984, from 14% to 25% (Workplace Industrial Relations Survey 1980 and 1984) and declining to 15% in 1998 (Blanchflower and Oswald 1988; Cully et al. 1998; Pendleton 2001). Of course, the initial increase may have been overstated because share-ownership and Profit-Sharing were used interchangeably. Over the past decade there has also been an increase in the rate at which firms in the United States have adopted Employee Share-Ownership systems. The number of share-ownership companies has grown from 1,000 in 1976 to more than 10,000 in 1989 and they are reported to encompass over 10 million workers (Pierce et al. 1991; Quarrey et al. 1986; Young 1990). New data

indicate that, 23% of the total US private sector was involved in some form of employee-ownership (NCEO 2004) and shared capitalism has grown from an estimated 1% of corporate equity in the 1920s to almost 5% of corporate equity in 2002 (Kruse 2002).

ESO schemes have survived since their conceptualisation in the 1920s as a tool for broadening the distribution of wealth in the US. Employee share-ownership in the original form, where employees used their savings to purchase shares of the employing company, failed as a result of the stock market crash and the depression in 1929. The concept was revived in the 1950s by Kelso, a US attorney and investment banker. He conceptualised and developed a special kind of employee share-ownership called the Employee Share-ownership Plan (ESOP), where the shares would be acquired and allocated to the employees through a trust mechanism. The trust would be typically funded by loans or company profits thereby minimising the risk borne by the employees. With the support of Senator Russell Long and a host of supportive legislation, i.e. the Employee Retirement Income Security Act of 1974 (ERISA), the Tax Reduction Act of 1975 (TRA) and the Deficit Reduction Act of 1984, the ESOP concept was popularised in the US.

Though the concept of employee share-ownership has existed in the UK since the 1930s, it only gained popularity in the 1980s as a result of the of the legislative initiatives in the form of the Finance Acts of 1978, 1980, 1984, 1995 and 2000, which provided tax incentives in support of ESO scheme implementation. Most of the legislation to promote ESO schemes in the UK was passed by the Conservative government led first by Margaret Thatcher (1979-81) and then by John Major (1991-97). The Blair 'New Labour' government passed further legislation to promote ESO schemes and share option schemes. The UK Finance Act 2000 contained a range of measures and tax incentives aimed at promoting ESO schemes (Inland Revenue 2000). The aim of this is to increase Britain's productivity by 'harnessing the ambition of employees to see the company in which they work succeed' and rewarding such enterprise by 'helping all employees share in the success of the company' (HM Treasury 1998)

Therefore, political support has played an important role in the development of ESO schemes. The much greater incidence of Employee Share-ownership Plans in the US and the UK as compared to the other European countries could be correlated with the extent of statutory support (Pendleton 2001:41). This has led many observers to suggest that government encouragement via legislation and tax concessions is the single most important factor encouraging the take up of financial participation (ibid.). Different political groups have different reasons for propagating ESO schemes. For example, the UK Conservative Government viewed ESO schemes primarily as a means of spreading wealth rather than a route towards industrial democracy. On the other hand, the UK Labour government and the Trades Union Congress viewed ESO schemes primarily as a tool for bringing about industrial democracy. The main reasons for advocating ESO schemes were well articulated in a debate on Profit-Sharing Schemes in the House of Commons in December 1981, by the then Financial Secretary, Nicholas Ridley:

"...we have to consider two principles. One is that the employees should be able to participate in the profits of the company in which they work, that they should own a stake in the company, and they should be motivated to try harder on its behalf by the financial incentives of the shares they own. The other, which is an equally laudable but separate proposition, is that the more widely share-ownership can be spread throughout the community, the more individual investors there are in the stock market, and the more all our citizens own capital, the better it will be for general political reasons." (Ridley 1981 in Richardson and Nejad 1986).

Whatever the philosophical orientations of the political parties or trade unions, both these groups subscribe to the popular view that greater participation of employees in ownership and profits will lead to attitudinal changes, which in turn will lead to improvements in company performance (Pendleton 2001). Therefore, the anticipated performance benefits associated with the ESO schemes are a fundamental reason behind the legislative support they receive. The political support in turn, is an important factor contributing to the phenomenal growth of ESO schemes in the UK and US (Blasi et al. 2003; Pendleton 2001; Poutsma and Nijs 2003).

Apart from the political support, the growth of share-ownership can also be attributed to the perceived benefits associated with share-ownership in the rapidly changing industrial relations climate. ESO schemes were originally viewed as an effective tool for combating the recessionary forces by introducing a variable component in the fixed-wage system by paying a proportion of the wages in the form of shares (Weitzman 1984). ESO schemes are also often perceived as an anti-take-over mechanism used for financing management buy-outs and transferring equity from owners to employees in an industrial relations climate characterised by hostile take-over. Others view ESO schemes as an effective strategy for attracting and retaining critical talent (National Centre for Employee Ownership 2002).

1.3 Academic research on share-ownership and organisational performance

The growing interest in the question of employee share-ownership and organisational performance has generated a considerable amount of academic research. The majority of the evidence is supportive of the view that employee share-ownership companies have superior performance as compared to their non-employee share-ownership counterparts (Addison and Belfield 2000; Addison and Kruse 1992; Belfield 2001; Bradley et al. 1990; Chang 1990; Fernie and Metcalf 1995; Fitzroy and Kraft 1986; Gamble 1998; Hyman et al. 1989; Iqbal and Hamid 2000; Jochim 1979; Jones and Kato 1993; Long 1978, 1980 and 1981; Maudlin 1999; McNabb and Whitfield 1998; Park and Song 1995; Pendleton 1997; Quarrey et al. 1986; Rosen and Quarrey 1987; Rosen 1990; Russell et al. 1979; Sesil et al. 2002). However, there is some contradictory evidence challenging this view which suggests that share-ownership schemes does not have any impact upon performance, and may even be detrimental to performance (Blanchflower and Oswald 1988; Davidson and Worrell 1994; Livingston and Henry 1980; Pugh et al. 2000; Sockell 1985).

These varied views regarding the share-ownership and performance debate emphasises the complexity of this deceivingly simple question of whether ESO schemes yield performance improvements. The question is complicated by a number of debates pertaining to the concept of the share-ownership scheme itself; the lack of consensus regarding what constitutes organisational performance; the contextual factors that influence the strength of the relationship; and the route through which

ESO schemes impact upon organisational performance (Gamble 1998). The debate is further complicated by the varied economic, legal, political and social environment in which ESO schemes exist (Poutsma et al. 2003).

1.4 The Employee Share-Ownership concept

Some of the complexity in the share-ownership and performance debate can be attributed to the lack of clarity regarding the concept of the share-ownership scheme itself. First, confusion arises due to the fact that the terms share-ownership schemes and share-based Deferred Profit-Sharing Schemes are often used interchangeably. Second, the heterogeneity of the share-ownership schemes has implications for the expected benefits associated with share-ownership.

1.4.1 Understanding Employee Share-Ownership

An Employee Share-ownership scheme is essentially a form of financial participation scheme in which employees own a small or a substantial part of the equity of the employing company and participate in the financial prosperity of the company, either by receiving dividends on the shares owned or by the appreciation of employee-owned capital, or a combination of the two. The shares can be directly purchased using employee savings or alternatively, they may be allocated to the employees free of cost (out of company profits). In some cases, the shares may be given to employees at preferential rates, i.e. at a discount to the market price. The shares may be transferred to the employees using a trust mechanism or allocated to them directly. The shares generally have to be held by the employees or on behalf of the employees for a certain period of time, i.e. a number of years or until retirement or in perpetuity. Employees can own shares on an individual basis, or groups of employees can own shares collectively, or employees can build up a portfolio of internal and external shares. Usually the term employee share-ownership covers schemes where employees hold shares in the companies for which they work (Poutsma and De Nijs 2003). Generally, ESO schemes are accompanied by income tax-benefits for the individual employee-owners and corporation tax-benefits for the companies introducing ESO schemes. The schemes may or may not allow employees to have voting rights. Usually, ESO schemes are not automatically accompanied by voting rights except for certain types of share-ownership such as worker co-operatives. The extent of share-

ownership coverage, the participatory rights, if any, the tax-benefits and the time period for receipt of shares depends upon the exact structure of the share-ownership scheme.

1.4.2 Heterogeneity of the Employee Share-Ownership schemes

The specific structures of ESO schemes vary with respect to their legal position, the method of owning shares and their objectives. Structural differences due to the legal status of the schemes impact upon the taxation benefits, the share-ownership coverage and the degree of risk borne by the employee-owners. The objectives for share-ownership schemes also influence the degree of industrial democracy and participation in decision-making accompanying employee share-ownership.

Based upon legal status, five main types of ESO schemes exist in the UK and their specific structures are linked with the Finance Acts of 1978, 1980, 1984, 1995 and 2000. They include Approved Deferred Sharing Trusts (ADST), Save As You Earn Schemes (SAYE), Discretionary ESOP and Company Share Option Plans (CSOPs), Enterprise Management Incentives (EMI) and Share Incentive Plan (SIP) formerly known as the All Employee Share Plan (AESP) (CIPD 2004). The above schemes vary on the basis of the specific tax treatment (income tax and corporation tax); the extent of share-ownership coverage in terms of employees eligible and proportion of equity held, the method of allocation of the shares (trust or direct purchase); the financing of the share-ownership schemes (loan, company profits or employee savings), and time period for holding the shares Details of the currently available approved schemes are provided in Table 1.

Moving away from the legal complexities and the technical details regarding the actual operation of the schemes, the share-ownership schemes could be divided into distinctive generic forms. Each of these forms is likely to have a different impact upon organisational performance. Employee Share Purchase Schemes allow for direct ownership of the shares by the employees. This form of employee share-ownership is one where the employees are expected to purchase the shares at the market price or the discounted price from their savings or through a loan given by the company.

A further form of share-ownership is the Employee Share-ownership Plan (ESOP). The defining feature of an ESOP is the presence of a trust to acquire hold and distribute shares to employees. The main ESOP trust has borrowing powers to enable it to purchase shares for eventual distribution to the employees. These shares may be newly issued by the main company, purchased on the open market or purchased directly from the owners. In privately-owned companies this trust can also act as a market-maker by providing a market for employees wishing to sell their shares (Pendleton 2001; Reid et al. 1990). They can be leveraged or non-leveraged depending upon whether they are funded by a loan or from the company profits. The shares generally need to be allocated to the employees after a predetermined period of time. However, there are cases where the shares can be held in perpetuity on behalf of the employees. When the trust hold shares in perpetuity it is referred to as collective ownership, for example, John Lewis Partnership. These schemes are very popular in the US, but comparatively less prominent in the UK (Poutsma and Nijs 2003).

Another form of employee share-ownership is the Stock Option Plan or Stock Bonus Plan whereby the employees are given the right to buy stocks in the future (for example, 10 years) at a price set on the date the options are issued (typically, the then market price or even at a discount to the market price). Employees are provided with access to these rights based upon the amount of time they stay with the firm (referred to as vesting period, generally 3 to 4 years in the US) (Blasi et al. 2003). At times, employees can take up the options immediately. If the price of the shares falls at the time of the exercise period, the employees have the choice of not exercising this option. Stock options allow for income tax exemption and, at times, allowances on capital gains tax for any growth in value between exercising and selling the options. These schemes also involve an upside opportunity for future gain without a downside risk of losing existing savings (Blasi et al. 2003). If the majority of the non-executive employees are included, it is known as a broad-based Stock Option Plan. The most recent decade has shown an increase in the personnel stock options (Poutsma and Nijs 2003), though they are mainly prevalent in the US.

Table 1 Types of Employee Share-Ownership schemes

Type of ESO schemes	Finance Act	Financing/Allocation	Coverage	Tax Treatment	Comments
SAYE/ Sharesave	1980	• Option to buy shares of employing company in 3, 5 or 7 years time. • Discount of 80% on current market values. • Financed from employee savings up to £250 using a Save As You Earn savings plan.	Broad coverage	• No tax on interest accruing in SAYE account or on growth in the share value between taking out and exercising the option or the value of preferential terms on the option. • Capital gains tax on the growth in value between exercising and selling the option.	
Company Share option Plans	1996	• Employees are given a share option (right to buy a certain number of shares at fixed price at a particular time i.e. 3 to 10 years later) • Maximum limit £30,000. • No discount to the prevailing market price is allowed.	Offered to select employees, generally senior managers	• Same as SAYE	Scheme replaced the Executive Share Option Scheme or Discretionary Share Option Scheme (1984)
Enterprise Management Initiatives (EMI)	2000	• Up to £100,000 of options in small and medium-sized establishments	Up to 15 selected employees in small and medium-sized enterprises	Granting of options free of income tax, but capital gains subject to the business assets taper relief from the date of award of the option rather than the date of exercise	
Share Incentive Plans (SIP)	2002	4 types: • free shares up to £3,000 per employee. • Partnership shares financed by employee savings from pre-tax income £1,500. • Matching shares; 2 for every partnership share purchased. • Dividend shares for the dividends reinvested from the plan shares.	Broad Coverage		Originally called AESOP (All Employee Share-ownership Plan)

Source: Pendleton (2001), CIPD (2004)

In the UK, stock options are often used in conjunction with a savings plan and are called the Save As You Earn scheme (SAYE). In this, employees are expected to make a minimum monthly contribution (£5 to 250) to a Save As You Earn plan to finance the option to buy shares at a discount to the market price (up to 80% of the market price) in a few years time (3, 5 or 7 years) in their employing companies. They are exempt from income tax on the growth in share value between taking out and exercising the option. The capital gains tax allowance is given on the difference between the exercising and the selling of the options (Fogarty and White 1988; Pendleton 2001; Poutsma and Nijs 2003).

Further variants include producer co-operatives, in which all the firm's shares (provided the legal form of share-ownership is observed) are collectively owned by its workforce; and employee buy-outs (EBO's), under which the company's shares are purchased exclusively by its individual workers (Poutsma and Nijs 2003). The main feature of co-operative ownership is that the ownership rights are distributed equally amongst the workforce, and it is usual for each employee to be allocated one vote. In co-operatives, shares are not held individually, but each employee has a voting right by virtue of their employment.

1.4.3 Types of schemes and their impact upon organisational performance

There is evidence to suggest that the different forms of ESO schemes differ with respect to their impact upon organisational performance (Addison and Belfield 2001; Fernie and Metcalf 1995). However, there are certain limitations associated with focusing on the relative effects of different types of ESO schemes while investigating the share-ownership and performance question.

First, similar forms of share ownership schemes might differ with respect to their specific design, thereby making comparison and generalisation very difficult. For example, it could be argued that direct employee share-ownership, whereby the employees finance their share acquisitions, have a higher burden of risk on the employees as compared to other schemes like Stock Option Plans or Employee Share-Ownership Schemes. Therefore, the interests of employees in case of direct ownership

will be better aligned with those of the establishment. However, this argument may not hold true if only a small proportion of the employees actually hold the shares through their savings. In such a case, an Employee Share-Ownership Plan with a majority of the employees owning a significant stake in the company equity may have a stronger impact upon the alignment of interests, as compared to a share purchase plan with minority employees owning a small stake in the company equity. Hence, relying on the form rather than the specific characteristics of the share-ownership schemes could be misleading.

Similarly, a broad-based Stock Option Plan is likely to have different performance implications as compared to a narrow-based Stock Option Plan, other factors remaining constant. For example, a broad-based Stock Option Plan would have an opportunity to align the interests of a larger number of employees as compared to a narrow-based Stock Option Plan where only a small proportion of employees are covered by the scheme. However, if the narrow Stock Option Plan gives shares to the employees who make a significant contribution to the organisational success, then they are likely to be more effective than the broad-based schemes that allocate a small equity stake to a large number of employees. This example illustrates that it may be the specific characteristics of the schemes rather than the form of the share-ownership which facilitates a clear understanding of the share-ownership and performance relationship.

Second, reliance on forms of ESO schemes may be misleading because schemes with a similar legal status may differ on various levels. For example, they may differ on the basis of the reason for which they were formed. An ESOP formed purely with the objective of providing corporate finance (technical ESOP) will be restricted in terms of equity stake, and is unlikely to provide employees with voting rights or allow for industrial democracy. In comparison, an ESOP formed with a different objective, i.e. where an owner seeks to give employees an opportunity to share in the financial well-being of the firm or a management buy-out (Paternalist ESOPs), is likely to have a higher degree of economic democracy but limited industrial democracy (Pendleton 2001). Furthermore, an ESOP formed by employees primarily with the motive of protecting their company, their jobs and conditions of employment when the firms pass from the public to the private sectors (Representative ESOPs), is likely to have

broad-based ownership stake and participatory structures. It is argued that the degree of ownership stake and degree of participation in share-ownership are important mediators of the share-ownership and performance relationship (Appelbaum and Berg 2000 in Sesil et al. 2002; Goldstein 1978; GAO 1987; Kruse 1992; NCEO 2002; Ramsay et al. 1989b; Rosen 1990; the Northeast Ohio study 1993). Therefore, it is likely that though ESOPs have a similar legal status they may be formed for different reasons and consequently are likely to have differing impacts upon organisational performance outcomes.

Finally, the differences that are suggested by theory may not hold true in practice. Direct share-ownership is perceived as having greater incidence of risk on the employee-owners as compared to other forms of employee share-ownership, such as employee share option schemes. However, a large part of the employee subscription is often channelled into preference shares rather than equity shares. Preference shares provide regular interest payments as compared to equity shares which are naturally more risky (Pendleton 2001). Hence, the risk associated with employee share-ownership is not as high as anticipated. Furthermore, if the shares are purchased at a huge discount to the market price, the risk is not very high.

The above examples illustrate that the characteristics of the share-ownership scheme, rather than the legally recognised form of share-ownership might be more strongly linked to performance. Consequently, this thesis focuses on the basic principle of employee share-ownership on performance outcomes rather than the legal status and the predefined forms of share-ownership. The existing literature reveals certain key debates pertaining to the ESO concept itself. First, there is the basic debate about whether the presence of the share-ownership principle itself has an influence on organisational performance. Second, there is speculation about the dimension of share-ownership which impacts upon performance outcomes, i.e. the physical ownership of shares, the financial rewards associated with share-ownership or the participatory rights sometimes associated with the schemes. Third, the coverage of share-ownership schemes is expected to affect the performance outcomes. Since coverage can be in terms of equity stake, in terms of the proportion of employees covered by the scheme, or a combination of the two, variations exist in the share-

ownership coverage and performance debate. This thesis in turn attempts to investigate the issues highlighted by these debates.

1.4.4 Employee Share-Ownership schemes versus profit-sharing

The employee share-ownership and organisational performance debate is complicated by the heterogeneity of the ESO schemes. This complication is compounded by a tendency to use the terms 'employee share-ownership' and 'share based Profit-Sharing' interchangeably (Poutsma and Nijs 2003).

Even though ESO schemes and Profit-Sharing fall under the broad umbrella of financial participation schemes, they differ on several accounts. As the terms suggest, the former allows employees to have a share of the company profits in cash or in shares. Generally, payments are made to employees at regular intervals, at other times, they may be held in a trust for a predetermined period of time. Sometimes, the shares may be held for a period of time before employees are allowed to exchange the shares for cash. If the payments are deferred, they are called Deferred Profit-Sharing Schemes.

There is often some confusion between share-based Profit-Sharing or share-based Deferred Profit-Sharing and ESO schemes because, in both cases, employees are rewarded through shares. However, they differ on several accounts.

First, conceptually they are very different. Profit-sharing schemes, conceptually take a similar form to pay based remuneration, but establish a more direct link with company profits and remuneration in comparison to fixed-wages. However, share-ownership schemes are much more than a performance-based remuneration package. ESO schemes confer an ownership status upon the employees by allowing them to own shares in the company for which they work.

Second, there is a difference in the amount of risk borne by employees in the two schemes. When Profit-Sharing contributions are made in terms of shares, these shares are generally not confined to the equity of the company which the employees work for. In fact, it is normal practice to invest in a portfolio of shares that would prove to

be financially rewarding for the employees. These factors reduce the risk and weaken the perceived link between employee efforts, individual rewards and company performance. In comparison, ESO schemes generally require that the shares allocated to employees are predominantly those of the employing company (Conte and Kruse 1991). Even though ESO schemes are often allocated free of cost or at discounted rates, and have low individual risk, they have a market risk attached to them because of investment in one company (Poutsma and Nijs 2003). Hence, the risk associated with employee share-ownership is higher that in the case of Profit-Sharing schemes.

Third, Profit-Sharing schemes reward past performance of employees by allowing them to have a share of the company profits in proportion to the achievement of certain performance targets. In contrast, ESO schemes seek to allow employees to participate in the future performance of the company through the appreciation in the values of the shares and/or receipts of dividends on these shares (Pendleton 2001).

Fourth, payments are made at regular intervals of time, except in the case of Deferred Profit-Sharing schemes where the shares are retained for a while before employees are allowed to dispose of them. However, in case of ESO schemes, the dividends on the shares may be paid to employee-owners as and when they accrue. Typically, employee-owners are expected to retain the shares for a predetermined period of time, at times until retirement; sometimes they are also collectively held on behalf of the employees for perpetuity (Poutsma and Nijs 2003).

Fifth, Profit-Sharing is treated as part of the remuneration package. Their tax treatment is identical to that of wages and salaries and in most cases, they do not get any tax exemptions (exceptions are France and the UK, and more recently, Italy (Poutsma and Nijs 2003). In contrast, ESO schemes benefit from income tax exemptions and have an allowance on capital gains tax.

1.5 Concept of organisational performance

The multidimensionality of the organisational performance concept could add further complications to the employee share-ownership and organisational performance debate. This diversity in organisational performance measures is due to a lack of

agreement between researchers about what organisational performance is and how it is to be operationalised.

The concept of organisational performance is a broad term which can be viewed in terms of financial and non-financial performance. Since performance is a dynamic concept that changes with time, there is a need to distinguish between short-term and long-term performance. Financial performance indicators generally concern themselves with profitability issues and can be easily measured and observed. Common operationalisations range from firms' market value, lead times, operating profits, share prices, sales growth, asset growth, and various established financial measures such as Return on Assets (ROA), Return on Capital Employed (ROCE), Gross Rate Return on Assets (GRATE), and Tobin's q. Moreover, the same variable is operationalised in different ways by different researchers; For example, productivity is defined as production hours per unit of output by Kelley (1996), as sales per employee by Huselid (1995) and as line uptime by Ichniowski et al. (1997).

The non-financial performance indicators, on the other hand, capture aspects of firm performance that impact upon the quality of output and are indicated by factors that cannot be easily measured or observed, for example, brand loyalty, goodwill, innovativeness, flexibility, ability to adapt to change, perceptions of public image, the quality of management, mission statement, vision, quality of service, labour productivity.

The diversity of organisational performance measures raises certain questions with respect to the share-ownership and performance relationship. First, there is some debate regarding the preferred dimension of organisational performance to be used, i.e. financial or non-financial. An overriding majority of the research relies on financial measures of organisational performance. However, overt reliance on only one measure of performance may result in an unbalanced view. This is particularly the case as improvements in certain dimensions of performance can be at the cost of others. A classic example is the argument by Freeman and Medoff (1984), which suggests that improved labour productivity is often achieved at the cost of reduced profitability. Furthermore, financial measures of firm performance can have serious shortcomings and limited informational value (Neely 1999; Neely et al. 2000). In their

book on financial performance measurement and shareholder value, Warner and Hennell (1998: 12) note:

"Financial measures are important but they are, in the end, only the way in which the score is kept. Successful performance is the result of a whole series of actions taken by managers in running the business, having regular contact with customers, motivating employees and setting up a wide range of systems and processes. However, good the financial measure and however good current performance may be, the potential for future shareholder value can be lost if the more intangible and non-financial aspects of the business are forgotten."

Furthermore, Kaplan and Norton's (1992) 'balanced scorecard' approach of including financial and non-financial performance concepts (i.e. customer, innovation and learning as well as internal business perspectives) has influenced recent thinking (Warner and Hennell 1998), and compared with a decade ago, the language of balance in measures of business performance has become widely accepted.

The brief discussion in this section has shown that a focus on financial performance alone in the share-ownership/performance debate does not reflect the current state of research relating to the concept of performance. For research on share-ownership and performance to be meaningful, the performance variables should not entirely rely on financial measures, but should also include non-financial measures.

Second, there is a theoretical argument for believing that share-ownership schemes might have differing impacts upon different dimensions of performance. Depending upon the route through which share-ownership schemes impact upon organisational performance, i.e. tax-benefits and cost savings or improved motivation, they will have differing impacts upon labour productivity and financial performance. For example, tax benefits are more likely to influence the profit margin and would be reflected in the financial performance. On the other hand higher motivation levels associated with share-ownership would encourage employees to work harder, thereby having a direct impact upon labour productivity.

Finally, there is some debate as to whether the performance effects of share-ownership are short-term or sustained over a long period of time. The complexity of this debate lies in the fact that there is no universally accepted definition of what constitutes long-term and short-term. The definitions of these terms are industry-specific. For example, the time scales would be shorter in non-manufacturing firms as compared to manufacturing firms. Furthermore, there is some ambiguity regarding how long after the share-ownership is implemented can one expect performance outcomes to be affected. More importantly, the schemes may influence some performance outcomes, like share prices, sooner than others, like labour productivity.

1.6 Factors influencing the share-ownership and performance relationship

Apart from the conceptual issues related to the share-ownership and organisational performance , there are a range of contextual factors that determine the strength and the nature of the relationship between them. The contingency argument suggests that the share-ownership/performance relationship is mediated by a range of contextual factors like participation in decision-making (Applebaum and Batt 1994; Bradley et al. 1990; Goldstein 1978; Rosen 1990; Rosen and Quarrey 1987), communication systems (Business Week 1984; Gamlin 1978; Employee Benefit Plan Review 1983), the nature of industry (Kruse 1992), the union presence, size of establishment (Pendleton 1997), presence of other financial participation schemes (Fernie and Metcalf 1995; McNabb and Whitfield 1998;) and factors intrinsic to the share-ownership scheme itself like share-ownership coverage (Appelbaum and Berg 2000 in Sesil et al. 2002; Florkowski 1987; Gamble et al. 2002).

Amongst the factors listed above, the impact of participation in decision-making and communication schemes on the share-ownership and performance question is most debated. It is argued that ESO schemes combined with the free flow of information and greater participation in decision-making establishes a clearer 'line-of-sight' between effort and reward, contributing to greater effort and subsequent improvements in performance outcomes (Conte and Svejnar 1990; Klein 1987). The dominant view is that employee share-ownership firms which are participatory in nature have higher performance outcomes in comparison to the share-ownership firms that do not have participation in decision-making (Blair and Kruse 1999; Kaufman

and Russell 1995; Klein 1987). Another view is that the presence of participation in decision-making makes no difference to the performance outcomes in the share-ownership establishments (Kruse 1993; Long 1978). This contradictory evidence has raised issues regarding the divorce between the presence of participatory mechanisms and their actual implementation. Recently, the heterogeneity of the types and forms of participation in decision-making and communication schemes has been emphasised (McNabb and Whitfield 1997). Different communication and participation in decision-making schemes might have differing impacts upon the organisational performance outcomes.

Second, the monitoring costs argument directs attention to the possibility that firms in industries with higher monitoring costs and a more direct link between effort and performance will benefit more from having ESO schemes. Hence, attention is drawn to the debate about the differential impact of ESO schemes on organisational performance observed in the manufacturing and the non-manufacturing sectors.

Third, linked to the extensive debate about how trade unions respond to the implementation of ESO schemes, is the issue of whether unionised employee share-ownership firms have different organisational performance outcomes as compared to the non-unionised share-ownership firms. It is argued that the unionised employee-ownership firms are likely to be more participative and pay higher wages than non-unionised firms (Freeman and Medoff 1984; Pendleton 1997).

Fourth, it is acknowledged that share-ownership schemes are often accompanied by other financial participation schemes, such as Deferred Profit-Sharing and Profit-Related Pay (Wood 1996 in McNabb and Whitfield 1998). This realisation may have contributed to studies that have speculated about the relative effects of share-ownership upon organisational performance in comparison to the other financial participation schemes (Addison and Belfield 2000; Addison and Belfield 2001; Fernie and Metcalf 1995; McNabb and Whitfield 1998). Linked to this question is also some interest as to whether share-ownership schemes are complementary to or substitutes of Profit-Related Pay (Addison and Belfield 2000; McNabb and Whitfield 1995).

1.7 Share-ownership and organisational performance: The route that links the two

There are various theories as to how ESO schemes influence performance outcomes. The dominant position is that the ownership of shares fosters a feeling of commitment amongst employee-owners, which in turn increases labour productivity and improves performance outcomes (Klein 1987; Long 1978a; Pierce et al. 1991; Rhodes and Steers 1981). Another view is that share-ownership schemes act as 'golden handcuffs', thereby enhancing organisational performance by reducing employee turnover (Blair and Kruse 1999; Conte and Kruse 1991; Richardson and Nejad 1986; Wilson et al. 1990). While many of the studies acknowledge the effect of ESO schemes on reduced employee turnover, they do not recognise reduced employee turnover as a critical variable through which share-ownership can impact upon performance outcomes. Others acknowledge the tax-benefits associated with share-ownership as yet another route through which the ESO schemes impact upon the performance outcomes (Blinder 1990, Blair and Kruse 1999; Richardson and Nejad 1986). There is very limited investigation of the alternative routes, but the evidence that does exist supports the view that share-ownership is associated with reduced turnover (Buchko 1992; Long 1980; Rhodes and Steers 1981; Wilson et al. 1990).

1.8 Share-ownership and commitment

Despite a strong theoretical rationale for the view that ESO schemes impact upon performance outcomes through improved organisational commitment, the evidence in support of this position is mixed. It ranges from improved commitment to unchanged commitment and even reduced levels of commitment. Furthermore, the results are difficult to generalise owing to a predominance of case study analysis. Complications are introduced because of a lack of clarity regarding what constitutes organisational commitment, both with respect to its definition and its operationalisation. There are also issues regarding the intrinsic and contextual factors that influence the share-ownership and commitment relationship.

1.8.1 Concept of commitment

There is little consensus on the definition of commitment. However, Meyer and Allen (1997) suggest that common to the various definitions of organisational commitment is "the view that commitment is a psychological state that (a) characterises the employee's relationship with the organisation, and has implications on the decision to continue membership in the organisation"(ibid.: 11). They identified three components of organisational commitment i.e. affective commitment, continuance commitment and normative commitment. Affective commitment refers to the employee's emotional attachment to, identification with and involvement in the organisation. Continuance commitment on the other hand refers to an awareness associated with the costs of leaving the organisation. Normative commitment refers to a feeling of moral obligation to remain in the organisation. Affective commitment is expected to be associated with improved performance outcomes, whereas, both affective and continuance commitment contribute to the decision to remain and hence reduce employee turnover.

A variety of measures for organisational commitment have been used while investigating the share-ownership and commitment question. They range from the Mowday et al. (1979) framework measured by a 15 item organisational commitment questionnaire, to the Cook and Wall (1980) framework, which uses fewer measures such as identification, involvement and loyalty while measuring organisational commitment. There are also cases whereby a single measure of organisational commitment is used; for example, loyalty (Long 1978) or identification (Steers 1977).

The diversity of commitment measures might have contributed to mixed results on the share-ownership and organisational commitment relationship. Particularly, the multidimensional constructs run the risk of measuring more than one dimension of organisational commitment. While the need to distinguish between different dimensions of commitment has been emphasised, (Lincoln and Kalleberg 1996; Meyer et al. 1997) however, none of the studies on share-ownership and organisational commitment make this distinction. The choice of the commitment measure in this thesis is informed by the view that affective commitment rather than

continuance or normative commitment is associated with higher organisational performance (Ostroff 1992 in Meyer and Allen 1997).

1.8.2 Contextual issues in the share-ownership and commitment relationship

There are a variety of issues intrinsic to the share-ownership that might complicate the debate regarding the impact of share-ownership upon performance via the commitment route. There are issues related to the employee share-ownership concept itself; for example, employee share-ownership coverage (Long 1980), the financial worth of the scheme (Buchko 1992; Goldstein 1978; Klein and Hall 1988; Pendleton et al. 1998) and the occupational distribution of the schemes (Pendleton 2001). Other issues relate to the context in which these schemes exist; for example, the level of participation in decision-making (Kruse 1984; Sockell 1985; Wilkinson et al. 1994), the presence of other financial participation schemes, managerial commitment to the schemes and market characteristics. Some of the factors like employee share-ownership coverage are similar to that of the initial discussion about share-ownership and organisational performance. Further complications are introduced by the view that organisational commitment is strongly influenced by perceptions of ownership i.e. psychological ownership. This observation introduces a strong subjective component in the share-ownership and commitment debate and has particularly significant implications for the issue of participation in decision-making. Klein's (1987) models of satisfaction i.e. 'intrinsic satisfaction', 'extrinsic satisfaction' and 'instrumental satisfaction' are often used to argue the case for the factors contributing to the improved commitment amongst the employee shareowners.

Using Klein's (1987) 'instrumental satisfaction' model it is argued that participation in decision-making has a desirable impact upon employee share-owners by establishing a clear connection between effort and reward thereby intensifying the feeling of psychological ownership. The largely supportive, but mixed evidence on share-ownership and commitment draws attention to related debates. First, the impact of ESO schemes upon organisational commitment is mediated by employee desires and perceptions of participation in decision-making. Linked to the issue of desire for

participation in decision-making is the ongoing debate about whether employee-owners actually desire participation in decision-making. If so, do they display a preference for job-level participation in decision-making over organisational-level participation in decision-making? (Kruse 1984; Pendleton 2001; Pendleton et al. 1998)

More importantly, there is speculation as to whether their desire for participation in decision-making is matched by perceptions of participation in decision-making. Managerial commitment to participation in decision-making is identified as a possible factor contributing to employee perceptions (Klein and Hall 1988; Klein 1987). While perceptions are difficult to determine, the more tangible debate pertaining to the differing impacts of job-level and organisational level participation in decision-making upon organisational commitment has generated academic interest.

Another fundamental debate concerns the employee share-ownership concept itself. There is speculation as to which dimension of share-ownership schemes has the strongest impact upon performance. Is it the physical ownership of shares, or the financial rewards or participatory rights associated with the scheme? The dominant view is that it is the financial worth of the scheme that has the strongest impact upon higher commitment (French and Rosenstein 1984). Linked to the concept of financial rewards is the importance of share prices and the size of individual share holdings in determining the financial returns associated with share-ownership (French 1987; Klein 1987; French and Rosenstein 1984). Similar to the debate about employee share-ownership coverage and organisational performance, there is speculation regarding how broad-based share-ownership coverage impacts upon performance outcomes. The strongest evidence for improved commitment levels concerns share-ownership firms where 100% of the equity is owned by 100% of the employees (Long 1980; Kruse 1984). However, there is lack of clarity regarding the effect of ESO schemes on commitment levels in situations that do not correspond to is ideal.

Apart from the coverage of the distribution of the schemes amongst the managerial and non-managerial employees is expected to impact upon the levels of organisational commitment. However, this issue remains largely untested by previous studies.

1.9 Share-ownership and employee turnover

The possibility that ESO schemes can yield performance benefits through reduced turnover, has received little attention. A majority of the theories that exist view the share-ownership and employee turnover debate as a part of the larger share-ownership and commitment debate (Long 1978a; Pierce et al. 1991; Rhodes and Steers 1981). It is argued that ESO schemes foster higher organisational commitment, which reduces employee turnover and absenteeism. These behavioural outcomes, in turn, influence labour productivity and eventually contribute to enhanced performance outcomes (Long 1978a; Pierce et al. 1991; Rhodes and Steers 1981). The lesser known academic perspective is that the promise of substantial financial rewards associated with ESO schemes make it financially lucrative for employees to remain in employment, and therefore acts as 'golden handcuffs' tying the employees to the establishment (Blair and Kruse 1999; Conte and Kruse 1991; Richardson and Nejad 1986; Wilson et al. 1990)

There is some speculation as to whether reduced employee turnover would contribute towards improved labour productivity, particularly if the employees stay on for financial reasons, rather than a sense of loyalty and attachment to the firm (Luchak 2003). In response to the above speculation, it is argued that there are productivity benefits associated with reduced employee turnover *per se*. It is suggested that reduced employee turnover results in long-term stable employment relationships, which, in turn, encourage firm-specific investment in human capital by the employers, thereby further increasing labour productivity. Furthermore, since the allocation of shares is often a function of tenure, and base salary or seniority, there is an inherent motivation on the part of the employees to increase productivity and rise up the corporate ladder (Blair and Kruse 1999; Richardson and Nejad 1986; Wilson at al. 1990). This enhanced labour productivity and reduced employee turnover may translate into improved financial performance.

Employee turnover is the permanent exit or withdrawal of employees from the organisation. Previous reviews of the literature and research on employee turnover have identified two forms: (1) voluntary turnover, which occurs when the exit is self initiated and (2) involuntary turnover, which occurs from organisation initiated terminations (Buchko 1992: 715).

For the purposes of the debate on share-ownership and organisational performance, it is voluntary turnover that is most relevant, since establishments seek to reduce voluntary turnover in the interest of enhanced performance (Phillips 1996 in Glebeek and Bax 2004). Involuntary turnover is often used by establishments for the purpose of maintaining productive efficiency by removing unproductive employees. Unfortunately, there is a dearth of research on the organisational consequences of employee turnover and the need for further research in this area is widely acknowledged (Glebbeek and Bax 2004; Mobley 1982; Staw 1980; Williams 1999 in Glebbeek and Bax 2004). Only three recent studies report on the effects of turnover and all of these studies treated the topic of employee turnover and organisational performance as a side issue (Glebeek and Bax 2004).

1.10 Focus of this thesis

This thesis argues that, despite the contextual differences, structural differences and legal complexities, the underlying principle of share-ownership schemes remains the same - its contribution to the profit maximisation objective and organisational performance. Therefore, the question of the effect of ESO schemes upon organisational performance is investigated by stripping employee share-ownership of its various structural complexities to ask the following questions: Do the ESO schemes in principle contribute to better organisational performance outcomes? Under what circumstances is the relationship stronger? How is this achieved? The answers to these questions will help in the development of a greater understanding of how share-ownership operates.

Furthermore, the focus of this thesis on the UK experience of Employee Share-Ownership Scheme is an attempt to fill the gap between extensive academic research drawing upon the ESO schemes experience in the US and the comparatively limited research on the UK (Richardson and Nejad 1986). Though the principle of share-ownership is not country-specific, the socio-economic conditions, political orientations and legal status of share-ownership differ between the UK and US. Hence, there is a likelihood that the organisational performance outcomes and the expected route through which ESO schemes might influence upon performance might be different.

Finally, the methodology adopted in this thesis is influenced by the fact that academic research on the share-ownership/performance question is relatively scattered and is predominantly based upon case studies of single or a small number of firms belonging to a particular industry, often with low response rates, thereby making generalisation difficult. This thesis seeks to address this gap by using a nationally-representative UK based data-set i.e. the Workplace Employee Relations Survey cross-section data-set (WERS98). The WERS98 data-set is comprehensive, providing establishment level and employee data based upon 2,192 workplaces in the Britain and 28,230 employees in these workplaces. Furthermore, it achieves a response rate of over 80%, a distinct improvement from a majority of the US studies which struggle with response rates around or even below 25% (Becker and Huselid 1998 in Ramsay et al. 2000).

1.11 Outline of this thesis

A critical evaluation of the existing research on share-ownership and organisational performance , and the routes through which this link is established is presented in Chapters 2 and 3. It is suggested that the varied evidence with respect to share-ownership and organisational performance can be attributed to the methodological differences in the studies and the contextual factors that influence the share-ownership and performance relationship. Critical evaluation of the research evidence reveals certain gaps with respect to methodological and conceptual issues, some of which are addressed in this thesis. These gaps provide the foundations for the formation of the hypotheses and the development of the research methodology in the subsequent chapters. The strongest themes that emerge pertain to the need to investigate the

share-ownership and performance relationship for different dimensions of employee share-ownership coverage, and in the presence of participation in decision-making and other financial participation schemes. Furthermore, the unresolved issues regarding the role of commitment and employee turnover as plausible routes linking share-ownership to organisational performance are identified as areas for further investigation. Finally, the lack of a well developed theory underpinning the debate on share-ownership and organisational performance is identified.

This perceived lack of theory is addressed in Chapter 4, by developing a theoretical model contributing to the articulation of the key hypotheses investigated in this thesis. Apart from developing the key hypotheses, this chapter clarifies the theoretical position adopted in this thesis while investigating the share-ownership and performance question. Integrating the elements from principal/agent theory, expectancy theory and Klein's (1987) satisfaction models and the 'golden handcuff' theory, a conceptual framework outlining the share-ownership and performance link has been developed. It is argued that ESO schemes impact upon organisational performance by aligning employee interests with that of the organisation and through reduced monitoring costs. Expectancy theory is used to predict the factors influencing the strength of the share-ownership and performance relationship and Klein's (1987) models of satisfaction provide the basis for explaining the share-ownership, commitment and performance relationship. Finally, the 'golden handcuff' theory is used to explain the contribution of employee turnover on the share-ownership and performance link. The conceptual framework guides the definitions of the key variables presented in the research methodology chapter.

The research methodology developed in Chapter 5 seeks to address the methodological issues highlighted in Chapters 2 and 3 and operationalise the theoretical model so as to test the key hypotheses outlined therein. Therefore, in the interest of generalisability, a secondary analysis based upon one of the largest and most comprehensive data-sets in the world, WERS98, will be undertaken. Furthermore, the unbiased selection of samples in the WERS98 data-set helps to ensure the minimisation of researcher bias. Previous research on share-ownership and performance, largely rooted in contextual qualitative analysis, has indicated the aspects of the relationship that need to be subject to a more comprehensive

quantitative analysis. The methodology adopted along with the WERS98 data-set provides precisely such an analysis.

The findings are presented in Chapters 6 and 7. Chapter 6 presents the results relating to the question of whether ESO schemes are associated with higher financial performance and labour productivity. Chapter 7 explores the mechanisms by which ESO schemes might influence corporate performance. The first half tests the theory that ESO schemes yield better corporate performance through increased employee commitment to the company. The second half evaluates the contention that ESO schemes are effectively 'golden handcuffs' reducing employee turnover which in turn contributes to improved corporate performance. The final chapter, provides an overall summary of key findings related to ESO schemes and corporate performance and discusses the contribution of this thesis to the existing body of knowledge. Thereafter, some possible avenues for future research are outlined.

Chapter 2

Critical Evaluation of Empirical Research on Share-Ownership and Performance

2.1 Introduction

There is a rich and varied literature on the relationship between share-ownership and performance. A critical evaluation of the key studies is provided in this chapter so as to identify gaps and unresolved issues and to outline the research questions for investigation in this thesis.

The main theme explored in this chapter is the nature and extent of the relationship between share-ownership schemes and performance. This theme is further divided into sub-themes, i.e. contextual factors and factors intrinsic to the share-ownership scheme which might influence the fundamental association between share-ownership and performance. Existing studies are discussed in terms of conceptual and methodological differences. The identification of methodological and conceptual weaknesses in previous studies yields implications for the methodology developed and the issues investigated while testing the Employee Share-Ownership (ESO) schemes and organisational performance relationship in this thesis. The chapter concludes with a brief summary of the key hypotheses that will be investigated in this thesis. In so doing it sets the stage for the subsequent chapters in this thesis where the hypotheses will be tested using an appropriate methodological construct.

2.2 Employee Share-Ownership schemes and organisational performance: Empirical evidence

The majority of existing studies report a positive and significant association between share-ownership and the various measures of organisational performance (Addison and Belfield 2000; Addison and Belfield 2001; Bradley et al. 1990; Conte and Svejnar 1988; Conte and Tannenbaum 1978; Fernie and Metcalf 1995; Fitzroy and Kraft 1986; Gamble 1998; Goldstein 1978; Hyman et al. 1989; Iqbal and Hamid 2000;

Jones and Kato 1993; Long 1978 1980 and Long 1981; Maudlin 1999; McNabb and Whitfield 1998; Park and Song 1995; Quarrey et al. 1986; Rosen and Klein 1983; Rosen and Quarrey 1987; Rosen 1990; Richardson and Nejad 1986; Sesil et al. 2002). However, other studies report a positive but weak association (Jochim 1979; Pendleton 1997) or an insignificant association (Bloom 1985; Kruse 1992; Long 1980; Park and Song 1995; Pugh et al. 2000; Russell et al. 1979; Sesil et al. 2002) between the two. Still others (but rather fewer) studies report a negative association between share-ownership and performance (Blanchflower and Oswald 1988; Davidson and Worrell 1994; Livingston and Henry 1980; Sockell 1985;Maudlin 1999). The details of these studies are provided in Appendix 1.

Some of the strongest evidence is provided by case studies of employee-owned companies that have reported phenomenal growth subsequent to employee ownership. For example, Rosen (1990) studied the performance of the Weirton Steel corporation over a period of 5 years after the employee take-over and found that the organisation's performance was the best in the industry. Goldstein (1978) reported a dramatic financial recovery after an employee take-over in his study of a Western Australian metal products manufacturing firm. Bradley et al. (1990) observed that John Lewis Partnership, one of the largest and longest surviving employee owned companies in the modern world, reported a real growth in profits and sales over a 20 year period after employee-takeover.

Research based on the analysis of a larger sample of firms produced similar results. Long (1978) studied a medium-sized trucking firm in Western Canada and reported a stock price appreciation of 50% and considerable increase in profits since setting up the ESOP. Even when the performance of share-ownership establishments was compared to the industry averages, significant improvements in performance were observed. Rosen and Klein (1983) found that share-ownership establishments had significantly higher performance outcomes in comparison to industry averages in an after study of 43 US based share-ownership firms. Similarly, Conte and Tannenbaum (1978), in their study of 30 share-ownership establishments in the US, reported that the share-ownership establishments were 70% more profitable than their industry counterparts after setting up the share-ownership scheme.

Several studies built statistical models to arrive at similar conclusions. Fitzroy and Kraft (1986) studied a sample of 65 medium-sized firms metal working firms in Germany using simultaneous weighted least squares equations. They reported that there is a strong effect of profit sharing on profitability. Jones and Kato (1993) conducted a study of 543 Japanese manufacturing firms using the Cobb-Douglas production function. They reported a positive and significant correlationship between productivity outcomes and the proportion of employees who participate in the share-ownership scheme. Using the 1990 Workplace Industrial Relations Survey (WIRS3) cross-section dataset, both McNabb and Whitfield (1998) and Fernie and Metcalf (1995) found a positive and significant association between share-ownership schemes and performance. Similarly, Addison and Belfield (2000) and (2001) found positive and significant associations between share-ownership schemes and performance in their analysis of the 1998 Workplace Employee Relations (WERS98) cross-section data-set.

Other studies that used similar research designs reported only a weak positive association between share-ownership and performance. Pendleton (1997) conducted a correlation analysis of 591 workplaces in the manufacturing sector using the 1990 Workplace Industrial Relations Survey and found a positive but weak association between financial participation and financial performance outcomes. Furthermore, Jochim (1979) conducted a correlation analysis of medium-sized 30 Direct ownership and 68 ESOP firms in the US and found that the 30 direct ownership firms had profit levels slightly higher than similar conventional firms in industry. Conte and Svejnar (1988) studied 40 firms in the US plywood industry and reported that the Employee Share-Ownership Trust (ESOT) raised productivity by 9% (1990:166).

Others studied the performance of share-ownership establishments before and after setting up the schemes and found similar results. For example, Quarrey et al. (1986) found that the share-ownership firms grew much faster than the non-share-ownership firms after the adoption of share-ownership. Similarly, substantial improvements in share prices and employment growth were observed in Long's (1981) study of an electronics firm in Western Canada. Share prices increased substantially from $1 (before share-ownership) to $1.50 (7 months after share-ownership) and $2.10(18 months after share-ownership). Hyman et al. (1989) in their before and after study of

a brewing concern in North England reported that, over four years after ahre-ownership implementation, sales turnover increased from £85 to £145m, profits rose from £10m to £15m and the share prices trebled in value. A further refinement of the research design involved a before and after study as well as a comparative analysis with non-share-ownership firms. Rosen and Quarrey (1987) reported that their sample of 45 share-ownership firms outperformed the control group of 238 non-share-ownership firms at the rate of 5.4% in sales growth and 5.05% percent in employment growth. In fact, 73% of the share-ownership sample significantly improved performance during a five year period immediately following the implementation of share-ownership (1998:531). Furthermore, the number of employees doubled after setting up the share-ownership scheme. Taking a six year time scale (1979-1984), Richardson and Nejad (1986) carried out a before and after study and a share-ownership versus non-share-ownership comparison over a period of six years, using a sample of 41 firms (23 share-ownership firms) in the multiple stores sector. They concluded that initially share-schemes tend to depress share prices but subsequently cause them to rise faster than average.

Similar results were reported using a larger sample size. Iqbal and Hamid (2000) conducted a longitudinal study of 76 share-ownership and 73 control firms and found that operating performance improves following the adoption of an ESO scheme. They reported that the operating income increased by 119% for the ESOP firms relative to only 3% increase for the non-share-ownership firms. In a study of 179 publicly-traded share-ownership companies in the US, Gamble (1988) found that share-ownership companies fared better than the non-ESO counterparts with respect to the key financial performance indicators. Marsh and McAllister (1981) reported that companies with share-ownership had twice the rate of growth to that of comparable non-share-ownership firms. Furthermore, Park and Song (1995) who studied 232 firms over a period of five years (t-1 and t+3) found long term improvements in performance in a before and after study of 232 share-ownership firms in the US.

A small number of studies provided contradictory evidence by reporting an insignificant or negative association between share-ownership and performance. For example, an insignificant association between share-ownership and performance measures was reported by Kruse (1992) in his correlation analysis of a broad

representative sample of publicly-traded firms in the US. Similar results were also obtained in a comparative study of 6 worker-owned and 7 conventional refuse collecting firms in the US; no differences in productivity were observed between the two types of firms. Bloom (1985) studied a large representative sample of publicly-owned companies in the US and found that the productivity effect of share-ownership, though positive, was never statistically significant.

Further support was provided by before and after studies. Pugh et al. (2000) conducted a before and after (t-1 and t+4) longitudinal analysis of 183 US firms that adopted ESOPs and found that the significant improvements in financial performance in the year of ESO scheme implementation disappeared in the long run. They concluded that share-ownership schemes do not produce a permanent increase in performance and that there was some evidence of under-performance of company shares and increase in labour costs. Davidson and Worrell (1994) also conducted a before and after study for a sample of 48 firms listed in the New York Stock Exchange and reported that the large asset turnover in the year subsequent to setting up an ESO scheme, disappears when adjusting for industry average. They found that certain performance indicators, such as returns on assets, were below industry average two years after the implementation of share-ownership. Blanchflower and Oswald (1988) reported a negative association between share-ownership and firm performance in a correlation analysis of 1,209 firms in the UK using the 1984 Workplace Industrial Relations Survey. A comparative analysis of 51 share-ownership firms with 51 Non-share-ownership firms by Livingston and Henry (1980) showed that the profitability for the share-ownership firms was less than the non-share-ownership counterparts.

Some studies reported mixed results and hence these studies are cited in more than one category for share-ownership and performance results. For example, Long (1980) conducted a pre and post share-ownership analysis of three medium-sized share-ownership firms; namely, a Western Canadian trucking firm, knitting mill and furniture firm both located in North Eastern US. Long (1980) tested for share-ownership effects 6 to 8 months before and then 18 months subsequent to the introduction of share-ownership schemes. While the share prices in the trucking firm and the knitting mill increased by 300% and 252% relative to the prices prior to

employee purchase, the share prices in the furniture firm did not change significantly. Furthermore, both the trucking company and knitting mill showed significant profits in the 18 months after purchase relative to losses suffered prior to purchase. In comparison, only marginal improvements in profits were observed in the furniture firm subsequent to purchase.

Using a large sample of share-ownership firms Maudlin (1999) conducted a pre- and post-share-ownership study of 30 employee-benefit ESOP firms and 31 non-employee-benefit ESOP firms. The former are associated with an increase in performance, whereas the latter are associated with a decrease in performance. A comparative analysis of three employee-owned firms by Sockell (1985) reported declining profits for two of them and with only one firm breaking even after suffering losses four years after being employee owned. Using a range of financial and non-financial performance indicators, Sesil et al. (2002) conducted a cross-sectional and panel survey analysis of 229 firms with highly skilled work force and high research and development activity in the knowledge-based industry (New Economy firms) in the US. They reported that the total cumulative shareholder returns for share-ownership firms were higher the non-share-ownership firms. However, there was no clear evidence that the share-ownership firms outperformed their non-share-ownership counterparts in terms of research and development. Furthermore, tobins q did not change significantly over time.

Based upon the majority evidence in favour of the view that ESO schemes enhance performance it can be hypothesised that **the presence of share-ownership schemes has a positive and significant association with organisational performance (*Hypothesis 1*)**

However, apparent contradictions in the results cannot be ignored and could be attributed to various factors. For example, methodological differences between studies, contextual factors like the environment in which the share-ownership scheme exists or factors inherent in the share-ownership scheme itself (Gamble 1998).

2.3 Share-ownership and organisational performance: Methodological differences

Various methodologies have been adopted to test the association between share-ownership and organisational performance. Some studies investigate how the presence of ESO schemes affects performance relative to the industry average, whilst others compare the performance of share-ownership firms to their non-share-ownership counterparts. Some studies compare a large sample of firms across industries in cross-sectional analysis and others follow the trajectory of a few firms within a sector or even the performance of a single firm through a case study approach. Furthermore, the studies differ with respect to the model specifications used for capturing the relationship between share-ownership and performance. Some use advanced econometric models such as the Cobb-Douglas production function, while others use simple regression equations but differ with respect to the controls used.

2.3.1 Cross-sectional versus longitudinal analysis:

The mixed results could partly be explained by the differential use of cross-sectional and longitudinal analysis. The studies investigating the relationship between share-ownership and performance can be broadly classified into two groups. One type of methodology measures the performance of share-ownership companies at a particular point of time. The other type of methodology compares the performance outcomes of share-ownership companies prior to the setting up the scheme and over a period of time subsequent to its implementation. The former method is often referred to as cross-sectional analysis whilst the latter is referred to as longitudinal analysis.

It should be noted, however, that a majority of the studies report strong and positive associations between share-ownership and performance irrespective of the broad methodology adopted. A large number of ESO scheme studies using cross-sectional analysis report a positive and significant association between share-ownership and performance (Addison and Belfield 2000 and 2001; Conte and Svejnar 1988; Fitzroy and Kraft 1986; Jones and Kato 1993; Long 1978; McNabb and Whitfield 1998). An equally substantial number of ESO scheme studies using longitudinal analysis arrive at a similar result (Bradley et al. 1990; Goldstein 1978; Hyman et al. 1989; Long 1980

and 1981; Maudlin 1999; Pugh et al. 2000; Quarrey et al. 1986; Rosen and Quarrey 1987; Richardson and Nejad 1986; Rosen 1990).

While a majority of the studies that use cross-sectional analysis report positive and significant outcomes, (Addison and Belfield 2000 and 2001; Conte and Svejnar 1988; Fitzroy and Kraft 1986; Jones and Kato 1993; Long 1978; McNabb and Whitfield 1998), some of them provide conflicting evidence (Bloom 1985; Jochim 1979; Pendleton 1997; Russell et al. 1979). For example, Bloom (1982) and Russell et al. (1979) find insignificant associations between share-ownership and performance, Pendleton (1997) and Jochim (1979) find a weak and positive association. Similarly, there are certain studies based on longitudinal analysis which contradict the majority view that share-ownership schemes improve performance (Kruse 1992; Sockell 1985; Davidson and Worrell 1994; Pugh et al. 2000). For example, Kruse (1992), Davidson and Worrell (1994) and Pugh et al. (2000) report that ESO schemes result in a negligible change in the performance outcomes over time. Sockell (1985) reports substantial decline in profitability after introduction of share-ownership. The conclusion must therefore be drawn that differences in methodology are not important in explaining the major differences in associations found between share-ownership and performance.

2.3.2 Variations in comparative analysis

Another reason for the mixed results could be related to the type of comparative analysis adopted. Some of the studies conduct a comparative analysis of share-ownership firms with non-share-ownership counterparts. Other studies compare the performance of share-ownership firms with industry averages. It is a matter of debate as to which method is more accurate. It could be argued that the use of control groups may be subject to a selectivity bias due to reliance on the performance outcomes of one or a few non-share-ownership establishments. This problem is likely to be mitigated if the performance of share-ownership establishments is compared to the average industry performance. Interestingly, positive performance outcomes are reported in share-ownership establishments irrespective of the exact method of comparison adopted. A majority of the studies report that the share-ownership firms perform better than their non- share-ownership counterparts (Bradley et al. 1990;

Gamble 1998; Iqbal and Hamid 2000; Quarrey et al. 1986; Quarrey 1987; Rosen 1990; Rosen and; Richardson and Nejad 1986; Sesil et al. 2002). Positive outcomes were reported on adjusting for industry averages (Conte and Tannenbaum 1978; Jochim 1979; Rosen and Klein 1983; Rosen 1990) with the exception of one study (Davidson and Worrell 1994).

Conte and Tannenbaum (1978), Rosen and Klein (1983) and Jochim (1979) found that the share-ownership firms appear to be high performers even when they adjusted for industry averages, thereby supporting the earlier findings. The only exception to these positive associations was the study by Davidson and Worrell (1994) which found that the short run positive performance outcomes reported subsequent to the setting up of an ESO scheme disappeared after adjusting for industry averages. Their study was based upon a highly select sample of share-ownership firms that were set up primarily for employee-benefit reasons. Their results probably reflect a selectivity bias and draw attention to the importance of sample size in influencing variations in the results.

2.3.3 Sample size: Large, small and medium samples

An examination of existing studies indicates that, as the sample sizes grow, greater variation in the results is observed. This could be because the smaller samples suffer from selectivity bias and hence the results tend to be skewed.

Most case studies report a positive and significant association between share-ownership and performance (Bradley et al. 1990; Goldstein 1978; Hyman et al. 1989; Long 1978, 1980 and 1981; Rosen 1990). Only two cases show the reverse (Sockell 1985; Russell et al. 1979).

Similarly, the majority of the studies with medium-sized samples of between 30 and 40 firms reported a positive and significant association between share-ownership and performance (Conte and Svejnar 1988; Conte and Tannenbaum 1978; Richardson and Nejad 1988; Rosen and Klein 1983). Others using slightly larger samples of over 60 to around 200 firms arrive at similar results (Fitzroy and Kraft 1986; Gamble 1998; Iqbal and Hamid 2000; Maudlin 1999). Still others reported short run performance improvements using similar sample sizes (Davidson and Worrell 1994; Pugh et al.

2000). The only exception to the rule is a study of 102 firms (51 share-ownership and 51 non-share-ownership firms) which reported that share-ownership firms were less profitable than their non-share-ownership counterparts (Livingston and Henry 1980). On the whole, the evidence suggests that there is a greater consistency in the results for studies which rely on small or medium sample sizes.

On the other hand, the results are more mixed when larger samples of more than 500 firms are considered. The results were divided between those that reported positive and significant performance outcomes (Addison and Addison and Belfield 2001; Belfield 2000; Jones and Kato 1993; McNabb and Whitfield 1998; Park and Song 1995; Quarrey et al. 1986; Rosen and Quarrey 1987; Sesil et al. 2002) and those that reported unchanged levels of performance (Blanchflower and Oswald 1988; Bloom 1985; Fernie and Metcalf 1995; Kruse 1992; Pendleton 1997). Blanchflower and Oswald (1988) reported a negative and insignificant association between share-ownership and performance using a sample of 1209 firms in the UK. Furthermore, Pendleton (1997), in his study of 591 UK firms, and Fernie and Metcalf (1995), in their study of 2061 workplaces did not find that share-ownership firms improve performance outcomes. Kruse (1992) and Bloom (1985) used a large representative sample of publicly-traded firms and suggested that ESO schemes showed a positive though statistically insignificant link with performance.

Therefore, the differential results on share-ownership and performance are to some extent related to the size of the sample and to whether it is representative or specially selected.

2.3.4 Advanced econometric models versus simple regression analysis

The results could also vary due to the econometric models used for analysis. However, different econometric approaches typically lead to similar results. Conte and Svejnar (1988) and Jones and Kato (1993) used the Cobb-Douglas production function and reported a positive and significant association between share-ownership and economic indicators like productive efficiency and value-added respectively. Fitzroy and Kraft (1986) use simultaneous equation modelling to report that there is a strong impact of profit-sharing on profitability. Others use simple regression

equations and still arrive at similar positive associations between share-ownership schemes and performance (Bloom 1985; Conte and Tannenbaum 1978; Jochim 1979; Park and Song 1995; Richardson and Nejad 1986).

2.3.5 Data-sets

Different data-sets have been shown to generate conflicting results even though they adopted identical methodologies. The studies carried out using the 1984 and 1990 Workplace Industrial Relations Survey and the 1998 Workplace Employee Relations Survey are a case in point. Blanchflower and Oswald (1988) who used the 1984 Workplace Industrial Relations Survey reported a negative and insignificant association between share-ownership and financial performance. However, McNabb and Whitfield (1997) report improved performance outcomes using the 1990 Workplace Industrial Relations Survey. Furthermore, Addison and Belfield (2000), who used the 1998 Workplace Employee Relations data-set, agree with McNabb and Whitfield (1997) regarding the positive performance outcomes associated with share-ownership schemes. Since all the three studies used comparable methodologies, one of the reasons for the differences in the results could be attributed to the differences in the data-sets. In particular, the results using the 1984 Workplace Industrial Relations Survey differed from those using the WIRS3 and WERS98. The differences are not surprising particularly since the political, social and economic environment was significantly different compared to the periods in which the latter surveys were conducted. These bring to light the factors like time, environment and legislation which might influence the relationship between share-ownership and performance. The differences in the results also draw attention to the finer details of research design within the apparently similar broad methodological construction i.e. model specifications.

2.3.6 Model specifications

Though methodologies may have broad similarities, they may differ with respect to the detailed model specifications. This could contribute to differences in results. A series of studies conducted using the 1984 and 1990 Workplace Industrial Relations Survey and the 1998 Workplace Employee Relations Survey illustrate this point.

These studies used similar econometric tools and regression analysis to capture the relationship between share-ownership and performance, but differed slightly with respect to the detailed specifications of the models.

Though the studies by McNabb and Whitfield (1998) and Addison and Belfield (2000) used different data-sets they used a similar set of controls. In contrast, the study by Blanchflower and Oswald (1988), differed by using a different data-set and a different set of controls. The controls differed in that they included labour costs. There is a strong correlation between labour costs and the share-ownership schemes. Therefore, it is possible that Blanchflower and Oswald's (1988) estimation suffered from multicollinearity thereby reporting an insignificant association between share-ownership and performance. These results are contradictory to the previously reported positive share-ownership and performance relationship reported by McNabb and Whitfield (1998) and Addison and Belfield (2000). Hence, there is some evidence to suggest that specific methodological differences could contribute to variations in the share-ownership and performance results.

2.3.7 Definition and measurement of share-ownership

Share-ownership schemes and other schemes like Profit-Related Pay and Deferred Profit-Sharing schemes allow employees to share in the company profits and work on similar principles of aligning employee interests with that of the organisation. The distinction between Deferred Profit-Sharing schemes and ESO schemes is not always clear, and at times these terms were used interchangeably (Blasi 1988). This ambiguity makes it difficult in determining whether the studies are considering Deferred Profit-Sharing schemes, worker-owned co-operative societies or Share Purchase Plans while investigating the relationship between share-ownership and performance. A good example is provided in a study by Livingston and Henry (1980). Though they claimed that their study was about ESOPs, Rosen and Ganados (1983) suggested that they were in fact studying Stock Purchase Plans rather than ESOPs. It is open to debate as to whether the sample used by Livingston and Henry were ESOPs or stock purchase plans. However, the controversy surrounding this study draws attention to the fact that there exists a degree of ambiguity regarding ESO schemes.

It can therefore be stated that different definitions of what constitutes a share-ownership scheme may have contributed to the wide range of associations estimated between share-ownership and performance.

2.3.8 Definition and measurement of organisational performance

Organisational performance is a multidimensional concept and this could also contribute to the diversity of the share-ownership and performance results. Organisational performance measures can be broadly classified into financial and non-financial performance indicators. Since performance is a dynamic concept that changes with time there is a need to distinguish between short-term and long-term performance. Therefore, the performance indicators used while studying the share-ownership and performance relationship range from financial performance, labour productivity and quality of service. Of these, some capture immediate performance increases whilst others capture future expectations or long–term performance improvements.

The most commonly used performance indicators are the pre-tax profits-to-sales ratio, share prices, total shareholder returns, operating performance, value-added per employee, number of employees, sales turnover, return on capital, employee turnover and grievance rates.

2.3.8.1 Financial versus non-financial performance indicators

It is notable that studies which rely on similar performance measures generally report similar results. This is particularly the case when only a small number of financial indicators are used. For example, studies that use only share price movements (Hyman et al. 1989; Iqbal and Hamid 2000; Long 1978; Richardson and Nejad 1986) or growth in sales per employee or value-added or return on capital or a combination of a few of these as performance measures, generally report positive performance outcomes (Fitzroy and Kraft 1986; Jones and Kato 1993; Maudlin 1999). However, the results are more varied when a large number of performance indicators are used, or if both financial and non-financial indicators are used.

Using an ordinally-ranked financial performance measure, Blanchflower and Oswald (1988) reported a negative association between share-ownership and performance, whereas Addison and Belfield (2000) as well as McNabb and Whitfield (1998) reported positive performance outcomes for share-ownership companies. Furthermore, Fernie and Metcalf (1995) and Addison and Belfield (2001) used a range of indicators like productivity levels, change in employment, turnover rate, absenteeism rate and showed that share-ownership schemes interact differently with different types of performance indicators.

The most interesting results are revealed in studies that have examined the effect of share-ownership schemes on both financial performance and non-financial aspects of performance. The two studies that have used these two dimensions of performance report conflicting results (Pendleton 2001; Sesil et al. 2002).

Sesil et al. (2002) suggest that ESO schemes have a positive effect upon most financial indicators, but appear to make no difference to the non-financial indicators. Since their study is confined mainly to firms in the knowledge-based industries, it is worth while investigating whether a similar result is obtained in a wider cross-section of firms. Pendleton (1997) however, found no difference in the results for labour productivity relative to financial performance. Pendleton's (1997) study is based upon the Workplace Industrial Relations Survey of 1990, and there is no recent evidence with respect to the relative effects of share-ownership on financial and non-financial dimensions of performance.

Therefore, there is a lack of consensus regarding whether ESO schemes have a different association with the financial and non-financial performance indicators and whether the use of one or the other is an important factor explaining the variation in the estimates of share-ownership and performance association. The positive association between share-ownership and organisational performance is based on the premise that ESO schemes align employee interests with that of the organisation, thus leading to greater employee effort which translates into higher organisational performance. Increased effort is likely to have a more immediate effect upon labour productivity as compared to financial performance outcomes. Hence, it could be hypothesised that:

Employee Share-Ownership schemes will have a stronger positive association with labour productivity relative to financial performance (*Hypothesis 2*).

2.3.8.2 Short-term versus long-term organisational performance

There is strong evidence to suggest that share-ownership schemes contribute to higher performance outcomes in the short run (Davidson and Worrell 1994; Hyman et al. 1989; Iqbal and Hamid 2000; Long 1981 and 1978; Richardson and Nejad 1986). However, there is much debate as to whether these benefits can be sustained over the long run. In fact, there is evidence to show that the schemes appear to have no effects upon performance in the long run (Davidson and Worrell 1994; Park and Song 1995; Sesil et al. 2002;).

Generally, positive performance outcomes were reported when short-term performance measures like share prices were used to measure performance (Davidson and Worrell 1994; Hyman et al. 1989; Iqbal and Hamid 2000; Long 1981 and 1978; Richardson and Nejad 1986). However, share-ownership schemes did not appear to have any effect upon the long-term measures of performance like Tobin's q, m/b ratio and leverage-controlled return on assets (Davidson and Worrell 1994; Park and Song 1995; Sesil et al. 2002;).

The evidence was less conclusive when short and long-term performance were based on the time lag between ESO scheme implementation and performance measurement. Pugh et al. (2000) and Davidson and Worrell (1994) found evidence to suggest that the performance benefits are not evident in the long run. However, Park and Song (1995) provided contradictory evidence.

Pugh et al. (2000) compared the various financial performance indicators in the short run and after four years of ESO scheme implementation. They found that there is a short-term improvement in performance indicators like profit margin, return on assets, return on equity and reduced labour costs. The financial indicators increased up to the third year, but there is no evidence of a permanent improvement in the performance; in fact, share prices were reported to under-perform. Davidson and Worrell (1994)

also found that the positive performance observed subsequent to the setting-up of the share-ownership schemes disappear, after adjusting for industry averages, two years after share-ownership implementation.

Contradictory evidence was provided by Park and Song (1995) who found that share-ownership schemes were associated with a positive increase in the financial indicators in the long run. Furthermore, they concluded that ESO schemes produce a permanent increase in performance.

The debate with respect to long-term and short-term performance raises a conceptual issue with regard to how many years is long enough to qualify as long-term. Time scales for long-term and short-term depend on several factors for example, the nature of the industry. In an advertising firm, long-term might be a year, whereas in the power sector long-term could be a minimum of eight years.

Linked to this ambiguity about short and long-term, are questions like for how long after setting up a share-ownership scheme can the performance outcome be attributed to share-ownership. This is an important question, since there are several changes that take place in the long run which might have an influence upon the performance outcomes. If the share-ownership schemes are ongoing and are evolving with time, there is a strong likelihood that its benefits would be evident over a sustained period of time. However, if the schemes are a one-off phenomenon, their benefits may be short-lived.

2.3.9 Methodological implications

The observations with respect to the methodology and research design have implications for the development of a methodology used to investigate the relationship between share-ownership and performance.

First, since most of the contradictory results exist in studies with large samples across a range of industries, there is a case for conducting analysis based upon large sample of establishments. Furthermore, an analysis based upon a large representative cross-section data-set will minimise the selectivity bias prevalent in small samples.

Second, a universally acceptable definition of share-ownership is clearly desirable, and one that is broad enough to accommodate the various types of schemes, but narrow enough to make a clear distinction between share-ownership and other types of financial participation schemes like Deferred Profit-Sharing schemes.

Third, there is a need to measure both the financial and non-financial dimensions of performance. The financial performance measures should be based on a range of financial indicators that would reflect the financial performance of the establishment. The non-financial indicator should adequately capture the non-financial performance that share-ownership schemes are expected to impact upon, such as labour productivity. Ideally, the measures should reflect the short-term as well as sustained performance changes associated with share-ownership.

2.4 Share-ownership and organisational performance: Contextual factors

Contextual factors include environmental characteristics like location, the nature of industry and the structural characteristics of the share-ownership establishments. The environmental factors are likely to impact upon the performance outcomes associated with share-ownership. Hence, variations in the contextual factors used in different studies could explain some of the variations in the results.

2.4.1 Country: US versus the UK experience

The results of studies examining share-ownership and performance are more varied for the UK than the US studies, which generally report positive performance outcomes associated with share-ownership. The UK evidence is divided between those studies that report enhanced performance (Addison and Belfield 2000; Bradley et al. 1990; Estrin and Wilson 1986; Hyman et al. 1989; McNabb and Whitfield 1998; Richardson and Nejad 1986) and those that report unaltered performance outcomes for share-ownership establishments (Blanchflower and Oswald 1988; Fernie and Metcalf 1995; Pendleton 1997). Furthermore, the relatively few UK-based studies explicitly investigate the effect of share-ownership on the various dimensions of performance across a representative cross-section of share-ownership establishments

in the UK (Dunn et al. 1991). There are some studies that use the WERS98 or WIRS3 data-sets, however, they focus on financial participation schemes rather than specifically on the share-ownership and performance relationship. Thus, there is a need for further investigation of the share-ownership experience using a large and representative sample of share-ownership establishments in the UK.

There may be important implications associated with the UK findings. First, though there are similarities in the UK and US models of Human Resource Management (HRM), they differ with respect to economic and political ideologies and experiences, social values, trade union movement and work ethic. At a very general level, the differences in the share-ownership and performance experience in the two countries might draw attention to the contextual factors mediating this relationship. For example, the UK and US ESO schemes differ mainly with respect to the legislative support they receive. Hence, differences in results could be attributed to differences in ESO legislation in the two countries. The US ESO scheme enjoys far more tax-benefits as compared to the UK ESO scheme. Hence, if UK ESO schemes demonstrate positive performance outcomes, it provides indirect support for the view that the performance benefits associated with the share-ownership schemes need not be attributed to the tax benefits, but could be due to other factors like higher labour productivity.

2.4.2 The industry effect: Manufacturing versus the non-manufacturing sector

Kruse (1992) hypothesised that the share-ownership firms in the non-manufacturing sector would perform better than those in the manufacturing sector. Most of the studies that investigate the relationship between share-ownership and performance are restricted to manufacturing concerns and they generally report a strong positive association between share-ownership and performance. Virtually none of the studies have explicitly tested the relative effects of manufacturing versus the non-manufacturing sector on the share-ownership and performance relationship. The need to address this gap yields the hypothesis that **Share-ownership schemes that are introduced in the non-manufacturing sector are associated with higher performance outcomes relative to those introduced in the manufacturing sector** (***Hypothesis 3***)

2.4.3 Time of set-up

The time at which the share-ownership scheme is established might have an impact upon the share-ownership and performance relationship. If the ESO scheme is introduced at a time when there is inadequate legislative, political, economic or even financial support then share-ownership schemes may not be able to yield the desired performance outcomes. However, if these schemes are introduced at a time when they get favourable tax treatment and political support and there is a general upward trend in share prices, positive performance outcomes can be expected. Therefore, the different time periods at which these schemes have been implemented could have caused variations in the results.

Even though the effect of set-up time has not been tested, it is used as a proxy to determine the effects of share-ownership legislation. For example, share-ownership schemes introduced after 1978 in the US would be able to reap the benefits of the 1978 Tax Reduction Act. However, using set-up time as a proxy for testing the effect of legislation on share-ownership and performance is not applicable in the present situation where several political and legislative initiatives exist simultaneously. It is more pragmatic to consider more tangible environmental factors that are likely to affect the performance outcomes of share-ownership firms.

2.4.4 Firm performance as a determinant of share-ownership success

It is unclear whether the financial situation of an organisation determines the extent of performance benefit yielded by share-ownership establishments. Therefore, it is debatable whether the share-ownership schemes would have equally significant performance benefits when introduced in poorly performing companies. The case studies which look at share-ownership schemes and performance provide some insights into this issue. There is strong evidence of average or high-performing companies reporting substantial performance benefits subsequent to the setting up of an ESO scheme (Bradley et al. 1990; Rosen 1990; Rosen and Young 1991). However, there is limited evidence of poorly-performing companies reporting higher

performance outcomes subsequent to the setting up of an ESO scheme (Goldstein 1978; Sockell 1985).

The experience of the John Lewis Partnership (Bradley et al. 1990) and Weirton Steel Corporation (Rosen 1990) provide strong evidence of cases where share-ownership schemes have positive performance outcomes when introduced in companies that were high performers. Similarly, the National Centre for Employee Ownership (NCEO) provides evidence to show that high-performing companies are more inclined to adopt share-ownership schemes and these schemes enhance the profitability of these high performers (Rosen and Young 1991). Therefore, the evidence shows that ESO schemes can be used by already successful companies to further enhance their performance.

The study by Goldstein (1978) is one of the few studies which provide evidence of a dramatic financial recovery of a poorly performing company after introducing a share-ownership scheme. Furthermore, Sockell (1985) provides evidence of a medium-sized loss making firm that broke even five years subsequent to share-ownership. In the same study, Sockell (1985) also provides evidence of two profitable medium-sized companies that suffer dramatic losses subsequent to setting up of an ESO scheme. The evidence by Sockell (1985) suggests that even profitable companies may suffer losses subsequent to setting up of share-ownership schemes, whilst loss-making companies might break even eventually. This evidence seems to suggest that the financial health of an establishment may not be a determinant of ESO success.

2.4.5 Company size

Pendleton (1997) identified company size as an important factor influencing the share-ownership and performance relationship. However, this assumption is challenged by the studies which find that share-ownership companies of a similar size report varied performance outcomes (Sockell 1985; Long 1980).

Even if one assumes that size is an important factor mediating the share-ownership and performance link, there is debate about how size affects the share-ownership and performance relationship. A very limited number of studies provide evidence on the

effect of company size on performance in the share-ownership companies (Blasi et al. 1996; Blasi and Kruse 1992; Bradley et al. 1990; Goldstein 1978; Long 1978 and 1981; Ramsay et al. 1989b; Rosen 1990; Sockell 1985). Of these, only one study (Blasi et al. 1996) explicitly investigates the effects of company size. The evidence for the other studies is based upon closely observing organisation characteristics. The limited evidence that is available is mixed. Some studies report that the performance benefits are more evident in small share-ownership firms (Blasi et al. 1996). Others report that large share-ownership firms have shown significant performance improvements (Bradley et al. 1990; Goldstein 1978; Long 1978, 1980 and 1981; Ramsay et al. 1989b; Rosen 1990).

Blasi et al. (1996) reported that smaller share-ownership companies had significantly better performance outcomes relative to their non-share-ownership counterparts. However, similar improvements in performance were not reported in the case of the large share-ownership companies. One possible explanation is that there is a clearer 'line-of-sight' between effort and reward in the smaller companies. Besides, horizontal monitoring is seen to be easier in a smaller workplace since each worker has closer contact with the other workers and managers (Blasi et al. 1996).

Contradictory evidence is provided by other studies in which large share-ownership firms report improved performance outcomes. Large firms like Weirton Steel Corporation (Rosen 1990), the John Lewis Partnership (Bradley et al. 1990) and medium-sized firms like Norbrew (Hyman et al. 1989) or Hart of the West (Goldstein 1978) show positive performance outcomes subsequent to establishing a share-ownership company. Furthermore, Long (1978 and 1981) studied medium-sized firms and also reported positive performance outcomes. It is possible that the large firms that show positive performance improvements do so because those particular firms have a unique management style or an environment suited to share-ownership. So the evidence cannot really be generalised. Nevertheless, the success stories like that of Weirton Steel Corporation and the John Lewis Partnership, cast doubt upon the finding that smaller share-ownership companies rather than the large and medium-sized companies are likely to report performance improvements.

The evidence of whether the differential size of firms has had an impact on the variations seen in the share-ownership/performance relationship is therefore mixed.

2.4.6 Unionisation and share-ownership

There is speculation about how share-ownership schemes might impact on the power of trade unions in establishments (Pendleton 1995). However, there is very limited investigation as to how the unions influence the relationship between share-ownership and performance. Some support for the effect of unions may be provided in the study by Sockell (1985). It is interesting to note that the two share-ownership firms that reported declining profits in Sockell's (1985) study were both unionised, whilst the one firm that broke even was non-unionised. However, contradictory evidence was found by Long (1980), who reported very significant performance improvements in a unionised medium-sized trucking firm, but no visible change was reported in a comparable unionised medium-sized furniture firm. The differences are attributed to the effect of employee involvement schemes on the share-ownership and performance relationship. The absence of employee involvement schemes rather than the presence or absence of unions could be the predominant reason for the differential performance outcomes in the study by Sockell (1985). However, the mere presence of participatory mechanisms does not guarantee their implementation unless there is an external force ensuring their implementation (Kruse 1993; Long 1978). It is argued that establishments with trade union influence would have greater emphasis on industrial democracy than where trade unions are non-existent or have a subordinate role (Pendleton et al. 1995). Therefore, unionised establishments with share-ownership schemes should display greater participation in decision-making and hence greater labour productivity as compared to establishments without trade union presence. However, according to Freeman and Medoff (1984), trade union establishments are also characterised by high wages. Hence, the improved labour productivity may be at the cost of reduced profitability. This yields the hypothesis that **share-ownership schemes when introduced in unionised establishments will have a stronger positive impact upon labour productivity relative to share-ownership schemes in non-union establishments (*Hypothesis 4*)**

2.4.7 Employee Share-Ownership schemes, participation in decision-making and financial participation schemes

Share-ownership schemes often exist in workplaces with various types of employee involvement mechanisms, such as communication channels, participation in decision-making mechanisms and other financial participation schemes (Pendleton 1997). These schemes also have independent effects upon performance (McNabb and Whitfield 1998). This raises two issues. First, there is a lack of consensus at to whether performance effects can be attributed to the presence of share-ownership schemes rather than the other schemes that accompany it. Second, there is speculation as to the combined effects of share-ownership schemes and employee involvement schemes on the performance outcomes (McNabb and Whitfield 1998; Pendleton 1997). Various permutations and combinations of share-ownership schemes with different employee involvement schemes may contribute to differences in the results of analysis on share-ownership and performance.

Employee involvement schemes can be broadly classified into participation in decision-making schemes and financial participation schemes. It is not unlikely to expect that share-ownership schemes will have different interaction effects depending upon whether they are bundled with the employee involvement schemes or the financial participation schemes. This differential interaction effect could be another reason for the variances in the share-ownership and performance relationship.

2.4.8 Employee Share-Ownership schemes and participation in decision-making

2.4.8.1 Issue of attribution

There is a dearth of research that has compared the performance effects of share-ownership schemes to those of participation in decision-making mechanisms. The ones that do so draw attention to certain key themes.

First, Kruse (1993) suggest that the profit-sharing schemes produce gains independently of changes in employee involvement and other personnel policies

(Kruse 1993). This argument could be extended to ESO schemes and it could be hypothesised that **the positive and significant association between presence of share-ownership and performance will remain unchanged even when other participation in decision-making schemes are present (*Hypothesis 5*)**

Second, the relative performance effects of share-ownership and participation in decision-making differ based upon the measure of performance used. Share-ownership is reported to have stronger performance effects than participation in decision-making when financial performance is used as a performance measure (Addison and Belfield 2000; McNabb and Whitfield 1998). In comparison, participation in decision-making has a stronger impact upon performance when labour productivity is used to capture performance (Addison and Belfield 2001; Fernie and Metcalf 1995;).

Hence, it could be hypothesised that **Employee Share-Ownership schemes will have a stronger positive association with financial performance whereas; participation in decision-making has a stronger positive association with labour productivity (*Hypothesis 6*)**

Third, it is a widely acknowledged that employee participation schemes are heterogeneous (McNabb and Whitfield 1998). Furthermore, different types of participation schemes have varied effects upon performance. However, there is speculation regarding which of the employee participation schemes have a positive, insignificant or detrimental effect upon the performance outcomes. The evidence suggests that the voting rights and board representation are not very effective (Conte and Tannenbaum 1978; Quarrey et al. 1986). In contrast, McNabb and Whitfield (1997) reported improved performance effects associated with downward communication systems, whereas Addison and Belfield (2000) found no effect on the performance outcomes.

Based on these results it can be hypothesised that **different types of participation in decision-making schemes have a differential association with performance outcomes (*Hypothesis 7*).**

2.4.8.2 Interaction effects

Some studies show that participation groups improve company performance in a share-ownership setting (GAO; Goldstein 1978; NCEO 2002; Ramsay et al. 1989b; Rosen 1990; the Northeast Ohio study 1993). Others have provided contradictory evidence (Kruse 1993; Long 1978).

An extensive study of the research results on share-ownership by the General Accounting Office (GAO) (1987), the 1986 NCEO study, the New York and Washington studies, and a 1993 Northeast Ohio Employee-ownership Centre study concluded that the combination of ownership and participative management is a powerful competitive tool.

Supportive evidence was also found in case studies of successful share-ownership companies (Goldstein 1978; Hyman et al. 1989; Rosen 1990). Rosen (1990) attributed the success of Weirton Steel to employee participation schemes and good communication systems accompanying the setting up of an ESO scheme. Goldstein (1978) concluded that ESO schemes combined with participation schemes is necessary for the success of share-ownership schemes. The success of a brewing concern in North England could also be attributed to the combined effects of broad-based share-ownership and employee participation schemes (Hyman et al. 1989b). Similar conclusions were derived by Conte and Svejnar (1988) in their study of the plywood industry. The success of John Lewis partnership was attributed to a cluster of policies accompanying employee-ownership, open communication and a participative management style being some of them. The John Lewis partnership was founded on the beliefs of power-sharing, income-sharing and knowledge-sharing through open communication (Bradley et al. 1990). Long (1980) found that the firm with the best communication facilities and greatest participation in decision-making showed the highest levels of performance. The trucking firm which performed significantly better than the knitting mill had better employee representation on the board, had monthly board meetings, issued monthly profit and loss statements for the employees and reported a significant growth in participation in decision-making following the adoption of the ESO scheme. In comparison, the knitting mill had board meetings

only five times a year, had no regularised system of communication and reported only a slight increase in employee participation in decision-making.

McNabb and Whitfield (1998) also found that effective communication and employee involvement systems are associated with the success of share-ownership schemes. The success of ESO schemes at the Bridgetown Textiles Ltd (Britex) could be attributed to the employee committee set up to ensure that the plans are communicated to the employees (Brent 1985). Similarly, the existence of employee participation accompanied with the open communications between the labour and management contributed to the success of the ESO scheme set up by the Weirton Steel Corporation, in West Virginia (Business Week 1984). The Nott Company of Minneapolis is yet another example of a 100% employee-owned firm, which enjoys a high level of productivity and an open and informal system of communication (Industrial Distribution 1978). In an IT services firm the ESO schemes contributed to a decrease in absenteeism and turnover and improvement in various other performance dimensions. Once again, the company had an ongoing communications system (Employee Benefit Plan Review 1978).

The necessity of an ongoing communication for share-ownership success was emphasised by the Association of America, representatives of employee-owned companies. At the first Annual Meeting of the ESO schemes Council of America the importance of communications was stressed once again (Gamlin 1978). The establishment of an ESO scheme at the Lowes Inc. lead to a drastic improvement in the sales per employee and the existence of an ongoing communication system were probably responsible for it's success (Employee Benefit Plan Review 1983).

However, some contradictory evidence also exists. Kruse (1993) did not believe that share-ownership schemes accompanied by participation in decision-making are more effective than share-ownership alone. Support for his argument was also provided by Long (1978), who suggested that the combination of participation and share-ownership does not necessarily result in better performance outcomes.

Such contradictory evidence can reflect a number of factors. First, the heterogeneity in the participation in decision-making schemes might cause different interaction

effects based upon the type of participation in decision-making schemes which coexist with share-ownership. This is clearly illustrated by McNabb and Whitfield (1997) and Addison and Belfield (2000) who show that share-ownership schemes interact differently with downward communication schemes as compared to upward problem-solving schemes. Both studies report positive performance outcome associated with the interaction of share-ownership and downward communication schemes such as briefing systems. Their studies also reported insignificant interaction effects with respect to upward problem-solving schemes, for example, quality circles. Hence, it is important to look at interaction effects of share-ownership schemes for different types of participation in decision-making schemes.

Second, the results also vary significantly depending on the level of participation in decision-making, i.e. whether it is participation in decision-making for issues at the job-level or the issues at the organisational-level. Rooney found a strong synergy between employee-ownership and participation in job-level decision-making (Rosen and Young 1991:31).

Finally, the presence of participation in decision-making does not automatically guarantee its implementation. Kaufman and Russell (1995) point out, that even though management often recognises employee empowerment as necessary for productivity gains, they are reluctant to relinquish control. They suggested that the lack of sufficient legal backing may be a reason for this apparent divorce between policy and practice. Hence the instances where the combination of share-ownership and participation in decision-making does not generate the desired performance outcomes could be attributed to the lack of implementation of participation in decision-making.

It is therefore not surprising that positive performance outcomes can be expected only when employee involvement exists in the true sense (Rosen 1990: 176). In fact, majority of those establishments that have participation programmes have scratched the surface of the potential (Rosen and Young 1991:32). However, it is very difficult to determine whether the participation in decision-making actually exists. This is further complicated by the fact that employee perception of whether they really have participation in decision-making is dependent on their actual desire for participation in decision-making. Rosen and Quarrey (1987) find that perceived influence and the

existence of participation groups were significant and correlated to the performance variables. Since perceptions and desires are very subjective experiences, there is no way to objectively determine whether participation in decision-making really exists.

This yields the hypothesis that **when share-ownership schemes are introduced alongside certain types of formal participation in decision-making higher performance outcomes are expected relative to the presence of share-ownership schemes alone (*Hypothesis 8*).**

2.4.9 Profit-related pay and profit-sharing

2.4.9.1 Issue of attribution

A limited number of studies attempt to conduct a comparative analysis of various financial participation schemes with respect to their contributions to the performance outcomes (Addison and Belfield 2000 and 2001; Blanchflower and Oswald 1988; Fernie and Metcalf 1995; Kruse 1992; McNabb and Whitfield 1998). The studies that attempt to do so provide mixed evidence. The types of financial participation schemes can be broadly classified into Share Ownership Schemes, Profit-Related Pay and Deferred Profit-Sharing schemes.

The studies that compared the relative effects of Employee Share-Ownership Schemes and Profit-Related Pay schemes on performance found conflicting evidence. Some studies found that Profit-Related Pay schemes are associated with better performance outcomes as compared to the share-ownership schemes (Fernie and Metcalf 1995; McNabb and Whitfield 1998). Others reported the reverse (Addison and Belfield 2000 and 2001). Yet another outcome was reported by Blanchflower and Oswald (1988) who found that neither share-ownership schemes nor Profit-Related Pay had any perceivable effect upon performance.

The studies that investigated the relative performance effects of Deferred Profit-Sharing schemes and ESO schemes also found conflicting evidence. Fernie and Metcalf (1995) found that profit-sharing is associated with reduced labour productivity, while Addison and Belfield (2001) found no relationship between profit-

sharing and productivity. Kruse (1992) provides a different perspective by reporting that the profit-sharing schemes are associated with higher performance outcomes.

The above studies are not strictly comparable and methodological differences owing to differences in data-sets could account for the conflicting results. More importantly, none of the studies compared the relative effects of all the three distinct types of financial participation schemes using a common methodological framework and a common data-set. Most of the studies mentioned above focus on just two financial participation schemes.

It is likely that the performance benefits associated with ESO schemes will not be eroded even on controlling for the presence of other financial participation schemes. This is because ESO schemes operate on a different principle to that of other financial participation schemes. ESO schemes reward future performance and are likely to develop longer term employee commitment to the firm. In contrast, the cash-based profit sharing schemes which reward past performance are likely to encourage short-term profit maximising behaviour (Pendleton 1997). Since each of the schemes are likely to influence performance through different routes, it could be expected that performance improvements associated with ESO schemes will be evident even on controlling for the presence of other financial participation schemes. However, the strength of the association between share-ownership and organisational performance is likely to be stronger in the case of cash-based profit sharing schemes as opposed to ESO schemes. This is because, cash-based profit sharing schemes establish a clearer link to profits in comparison to the share-based schemes (McNabb and Whitfield 1997).

Therefore, this yields the hypotheses that:

(i) The positive and significant association between presence of share-ownership and performance will remain unchanged even when other financial participation schemes are present (*Hypothesis 9*)

(ii) Employee Share-Ownership schemes have a weaker positive association with performance outcomes in comparison to cash-based profit sharing schemes (*Hypothesis 10*)

2.4.9.2 Interaction effects

Some studies have investigated how share-ownership schemes combined with other financial participation schemes might impact upon the share-ownership and performance link. There is a lack of consensus with respect to the nature and strength of interaction effects of different types of financial participation scheme on the share-ownership and performance relationship. Whilst McNabb and Whitfield (1998) report that share-ownership schemes and Profit-Related Payment schemes have a negative interaction effect, Addison and Belfield (2000) suggest that they are complementary to each other.

However, there appears to be a consensus that 'bundles' of different schemes are found to have a significantly greater impact upon performance than the sum of their individual contributions (McNabb and Whitfield 1998; Pendleton 1997). Hence it could be hypothesised that **the presence of share-ownership schemes combined with other financial participation schemes will have a stronger association with performance outcomes as compared to the presence of share-ownership alone (*Hypothesis 11*)**

2.5 Factors intrinsic to an Employee Share-Ownership scheme

Though all share-ownership schemes are built on the foundations of industrial democracy, they vary with respect to their specific design. For example, share-ownership schemes differ from one another with respect to tax treatment, the reason why they are set up, the coverage of the schemes, specific issues like vesting period, vesting procedure, allocation criteria and other design related issues. These differences in the share-ownership scheme could influence the impact that these schemes have upon performance outcomes and might explain some of the discrepancies in the results.

2.5.1 The reason for setting up of an Employee Share-Ownership scheme :Employee-benefit versus tax-benefit reasons

The reasons for setting up share-ownership schemes can be broadly classified into tax-benefit and employee-benefit reasons. It is argued that ESO schemes set up for employee-benefit reasons reduce agency costs by aligning the employee interests with those of the firm and thereby resulting in greater performance effects. An ESO scheme which is set up for tax-benefit reasons, however, focuses purely on maximising tax savings rather than motivating employees. There is evidence to suggest that share-ownership schemes introduced for employee-benefit reasons have more favourable performance outcomes as compared to those introduced for tax-benefit reasons (Bloom 1985 Bradley et al. 1990; Chang 1990; Davidson and Worrell 1994; Gamble 1998; Richardson and Nejad 1986).

Gamble (1998) found that the ESO schemes which were established for employee-benefit reasons had significantly greater improvements in performance relative to those formed purely for reaping financial benefits. The latter were associated with a decline in profits. Further support was provided by Bloom (1985) who found that the tax credit ESO schemes reported insignificant performance outcomes. Similar conclusions were derived by Maudlin (1999) who found that ESO schemes adopted for employee-benefit reasons showed a significant increase in employee productivity. In contrast the firms that introduced ESO schemes for financial reasons reported a significant decrease in profits. A select sample of employee-benefit share-ownership firms studied by Davidson and Worrell (1994) also revealed significant increases in performance. Similarly, Chang (1990) found positive wealth effects in employee-benefit share-ownership firms.

Richardson and Nejad (1986) also provided supportive evidence to suggest that employee-benefit ESO schemes report greater performance improvements in comparison to tax-benefit ESO schemes. Their results showed that the former group reported an average share price increase of 26% compared to the latter group, who reported a 19% stock price increase. Furthermore, the John Lewis Partnership, introduced share-ownership primarily for employee-benefit reasons and has consistently outperformed its main competitors over a period of 20 years.

The results appear to suggest that the reason behind setting up the ESO scheme has an effect on organisational performance. However, the results should be treated with caution for several reasons.

First, most of the studies are based upon the assumption that share-ownership schemes introduced after tax-benefit legislation are tax-benefit ESO schemes whereas those introduced prior to the legislation are employee-benefit ESO schemes. This assumption is questionable because it is possible that some of the ESO schemes introduced after the legislation are based upon employee-benefit considerations.

Second, it is important to recognise that there may be more than one reason for setting up a share-ownership scheme. A mix of employee-benefit and tax-benefit reasons can be expected. This is particularly relevant in the current business environment which is marked by a large number of political and legislative initiatives advocating the setting up of the share-ownership schemes. Therefore, with the advent of various Tax Reform Acts in the US and Finance Acts in the UK it is difficult to use the legislative procedures as a proxy for determining the reason behind setting up ESO schemes.

Finally, it is difficult to predict the real reason for setting up of the share-ownership scheme. There may be explicit reasons and implicit or hidden reasons. It is unclear which of the reasons plays a more significant role in influencing the implementation of share-ownership schemes.

On the whole, the evidence suggests that the explicit reason behind setting up the ESO scheme may explain the variations in the results.

2.5.2 Share-ownership coverage: majority versus minority share-ownership

Kruse (1992) suggested that the coverage of share-ownership within an organisation might be an important factor influencing performance. There are three measures for coverage of share-ownership that have been identified, i.e. the fraction of company shares or equity held by the scheme, the proportion of employees covered by the scheme, the size of individual employee shareholdings.

2.5.2.1 Size of equity stake

It can be hypothesised that the greater the employee share in the equity, the greater the promise of financial rewards, resulting in greater employee efforts, and subsequently higher organisational performance. It is also argued that a higher proportion of equity held by the employees leads to more involvement of non-executive employees in decision-making. Therefore, higher employee morale can be expected. Conversely, a higher equity stake for non-managerial employees may lead to a dilution of managerial incentives, adversely impacting upon managerial performance (Jensen and Meckling 1979 in Jones and Kato 1993). There is yet another argument suggesting that a high equity stake may lead to management entrenchment in the absence of strong outside block-holders (Park and Song 1995). Therefore, there is a lack of consensus with respect to the direction in which the size of equity stake affects the performance in share-ownership establishments.

A substantial number of studies reported a negative and significant association between the size of equity stake and the firm performance (Bloom 1985; Chang 1990; Conte and Tannenbaum 1979; Conte and Svejnar 1988; 1987; Jones and Kato 1993; Park and Song 1995). Only two studies have found the opposite (Gamble 1998; Jochim 1979).

Jochim (1979) found that the greater the employee stake in the firm's equity, the higher the profitability of the firms. These results should, however, be treated with caution because the choice of the 30 firms was determined by the availability of profitability data out of a large sample of 30 direct ownership and 68 ESOP firms. It is possible that the companies which had high profitability were the ones that responded. Furthermore, since these were medium-sized companies, internal controls might have been strong. Therefore, there might not be a major difference in interests between the employee shareholders and outside shareholders.

Positive associations were also reported by Gamble (1988) where the ESOP held 15% or more of the outstanding equity. Bloom (1985) found that productivity falls by 5-8% for every additional 10% of stock owned by the employees in his study of a tax-credit

ESO scheme. The inverse link between equity stake and firm performance was not confined to the tax-credit ESO scheme. Conte and Svejnar (1988) found that the ownership stake was inversely related to the productivity of the firm. Furthermore, Conte and Svejnar (1988) reported that the effect of ESO schemes on productivity is positive at low and moderate levels of ownership and diminishes at high levels. Similarly, Jones and Kato (1993) reported that the proportion of total shares held by the ESOP has a negative and statistically significant association to productivity. Furthermore, Park and Song (1995) found that there was an inverse link between the size of individual ownership and performance, particularly for firms without large outside block-holders. They used management entrenchment theory to explain the results. They suggested that in the absence of strong outside monitoring mechanisms, higher management shareholdings will result in management entrenchment, whereby managers will be inclined to take decisions to serve their own interests rather than the interests of the firm, thereby resulting in reduced performance. However, in the presence of strong monitoring mechanisms, like outside block-holders, a check on the management decisions can be exercised. Evidence suggests that the performance improvements were present only for the firms with large outside block-holders, i.e. strong monitoring mechanisms. Support for such a management entrenchment theory is provided by Chang (1990). and Conte and Tannenbaum (1978: 25). Conte and Tannenbaum (1978) found that a 1% increase in non-managerial share-ownership increased profitability by 1% i.e. a very large extent. However, no such associations were reported for managerial ownership. Conte and Tannenbaum (1978) reported that the increase in equity owned by managers may have a negative effect if this increase is not accompanied by an increase in the equity owned by the employees.

2.5.2.2 The size and value of individual shareholdings

There is a strong theoretical rationale as to why the value of individual shareholdings might be an important factor determining the performance effects of a share-ownership scheme. However, the empirical evidence on this matter is relatively sparse (Kruse 1993). Jones and Kato (1993) predicted a positive association between the value of individual shareholdings and performance outcomes since the interest alignment of each share-ownership participant will increase as the value of the stake for each individual share-ownership participant increases. They found empirical

support for this hypothesis and reported that the average value of the capital stake owned by the ESOP per ESOP participant or the value of individual shareholdings had a positive and significant association with performance.

However, there are some issues associated with testing this association. First, the information with respect to the value of individual shareholdings is difficult to obtain due to confidentiality issues. Second, even though the size of individual shareholdings is relatively stable, their value fluctuates quite rapidly. Information about the size of individual shareholdings without any knowledge regarding their financial worth, is meaningless. Third, individual shareholdings are likely to influence individual productivity rather than organisational performance.

2.5.2.3 Proportion of employees covered by the scheme

There is a strong theory and some clear evidence suggesting that broad-based share-ownership schemes show better performance (Jones and Kato 1993; Conte and Svejnar 1990). However, there are some studies that challenge this view (Appelbaum and Berg 2000 in Sesil et al. 2002).

Theory predicts a positive association between broad-based share-ownership (majority of employees covered by the scheme) and performance outcomes due to the greater alignment of employee interests with those of the firm as more employees participate in the scheme. Moreover a higher degree of participation in the plan would be expected to produce a more co-operative environment, less asymmetric information and stronger peer monitoring (Conte and Svejnar 1990; Jones and Kato 1993). Broad-based stock compensation may give employees the incentive to choose and take actions that increase shareholder wealth (Sesil et al. 2002). Furthermore, the granting of stock options to rank and file workers may help to establish a bond between upper management and employees and create a co-operative culture that is necessary for group-based incentives to be effective (Appelbaum and Berg 2000 in Sesil et al. 2002). Finally, firms that adopt broad-based schemes may attract risk-neutral and higher-ability employees. Thus, there is reason to believe that, in firms where monitoring costs are high, provided the firm can overcome the free rider

problem, there may be positive performance effects associated with the use of broad-based schemes (Sesil et al. 2002.: 277).

The empirical evidence is largely supportive of this theory. A large number of studies report a positive association between broad-based share-ownership and performance (Bradley et al. 1990; Goldstein 1978; Hyman et al. 1989; Kruse 1992; Jones and Kato 1993; Long 1978, 1980 and 1981; Russell et al. 1979; Rosen 1990; Sesil et al. 2002).

However, some studies provide contradictory evidence (Sockell 1985; General Accounting Office 1987; Conte and Tannenbaum 1978; Jochim 1979). The contradictory evidence could be attributed to the fact that the group that constitutes broad-based ownership is not entirely homogenous. The group consists of those that have eligibility and those that actually own shares in the ESO scheme. An example is the study by Hyman et al. (1989) where majority of the employees were eligible to participate but only 10% of the majority of the employees actually participated. Hence, even though there was majority-eligibility there was only minority participation. It could follow from this observation that it is majority-participation in share-ownership schemes rather than majority-eligibility which contributes to the observed high performance outcomes in the broad-based share-ownership establishments.

The evidence yields the following hypotheses:

(i) When a majority of employees participate in the share-ownership schemes , higher levels of organisational performance are observed compared to when a majority of the employees are eligible for share-ownership schemes (*Hypothesis 12*)

(ii) When the majority employees participate in the share-ownership schemes , higher levels of performance are observed compared to the presence of share-ownership schemes (*Hypothesis 13*)

Another reason for the contradictory results could be attributed to the sample size of the studies. The studies that provide contradictory evidence are confined to a small

sample of firms. Yet another reason could be the presence of absence of unions. For example, Sockell (1985) found performance improvements only in the share-ownership firm that was unionised. Even though the unionised share ownership firm reported relatively higher performance improvements compared to the non-unionised firms, none of the firms studied by Sockell (1985) reported an increase in profits after employee-purchase. These results could be attributed to the absence of participation in decision-making or communication schemes in these share-ownership establishments. Therefore, the unionised environment and employee participation influence the performance of the broad-based share-ownership firms. In fact, there is evidence to suggest that unionised share-ownership establishments and share-ownership establishments with formal participation in decision-making schemes have higher performance outcomes compared to other share-ownership establishments (Hypotheses 4 and 8). Therefore, following from Hypotheses 12, 13, 4 and 8 it can be hypothesised that:

(i) When a unionised share-ownership establishment has majority-participation in share-ownership it is associated with stronger performance outcomes as compared to unionised establishments with majority-eligibility or where some form of share-ownership is present (*Hypothesis 14*)

(ii) When majority-participation in share-ownership schemes coexists with formal employee participation schemes, the performance outcomes are higher than when majority-eligibility or the presence of share-ownership schemes coexists with employee participation (*Hypothesis 15*)

Furthermore, following from Hypotheses 3 and 12 it can be hypothesised that:

(iii) Establishments in the non-manufacturing sector with a majority participation in share-ownership have higher performance compared to those that have a majority eligibility in share-ownership or simply have share-ownership presence (*Hypothesis 16*).

Other counter-evidence emphasised the importance of the employee share in the equity, rather than the proportion of employees covered by the scheme, as being an

important determinant of firm performance. Both Conte and Tannenbaum (1978) and Jochim (1979) suggested that profitability was unrelated to the percentage of workers' participating. Many companies that have relatively widespread ownership, in fact, involve only a small proportion of the company's equity in such ownership (ibid. 1978:26). Therefore, if majority of the employees are covered by the scheme but do not have a large equity stake, performance improvements may not be evident. However, there is evidence to suggest that actual participation in the scheme is an indication of the financial attractiveness of the share-ownership scheme (Dewe et al. 1988; Hyman et al. 1989 and 1989b; Keef 1988). Hence majority-participation in the share-ownership scheme may be an indication that the scheme is financially lucrative, or perceived as such by the majority of employees.

2.5.3 Types of share-ownership schemes

Fernie and Metcalf (1995) and Addison and Belfield (2001) draw attention to the impact of the type of ESO scheme on performance. They established that different types of share-ownership schemes differ with respect to their effects upon performance. Whilst Addison and Belfield (2001) reported the beneficial effects of SAYE schemes with respect to productivity outcomes and quit rates, Fernie and Metcalf (1995) found contradictory evidence. Unlike Addison and Belfield (2001), Fernie and Metcalf (1995) presented Executive Share Option Schemes in a more favourable light as compared to the SAYE schemes. Furthermore, Rosen and Granados (1983) suggested that Livingston and Henry's (1980) finding that share-ownership schemes do not enhance firm performance was attributable to a specific type of share-ownership scheme; namely the Stock Purchase Plan.

Therefore, the heterogeneity of share-ownership schemes could contribute to differences in performance outcomes.

2.6 Summary of key themes

Overall, there is strong evidence to suggest that ESO schemes enhance organisational performance. Despite the strong supportive evidence there is some contradictory evidence which contributes to variations in the results. These differences in the results

can be attributed to the differences in research methodology, the contexts in which these studies were conducted and the characteristics of the schemes itself.

Contrary to expectations, broad methodological differences such as cross-sectional and longitudinal analysis do not contribute to the variations in the results. Instead, specific methodological differences such as, the definition of share-ownership schemes and performance measures (financial versus non financial), the sample size of the study and the estimating framework explain some of the mixed evidence. The key contextual factors that appear contribute to the variation in the results include, the country (UK versus US) and the sectors (manufacturing versus non-manufacturing) in which the schemes exist; employee participation schemes and cash-based financial participation schemes that may coexist with share-ownership schemes. The mixed evidence can also be attributed to share-ownership characteristics such as, the coverage of the schemes (majority-eligibility versus majority-participation in schemes) and the reason behind introducing the scheme (tax-benefit versus employee-benefit reasons).

However, there is a lack of clarity as to the direction in which these factors influence the share-ownership/performance relationship, thus, opening up an avenue for further investigation. Fundamentally, the strong evidence supporting the view that ESO schemes contribute to higher organisational performance has encouraged investigation on the mechanisms through share-ownership and organisational performance are linked. The evidence from these investigations has been evaluated in Chapter 3.

Chapter 3

Critical evaluation of empirical research on Employee Share-Ownership, Commitment and Employee Turnover

3.1 Introduction

This chapter focuses on the routes through which Employee Share-Ownership (ESO) schemes impact upon performance. Two possible routes are discussed. One suggests that share-ownership schemes impact on performance via commitment, whereas the other suggests that enhanced performance is due to reduced employee turnover. A critical evaluation of the key studies on the effect of ESO schemes on commitment and employee turnover is provided in this chapter. These studies are discussed in terms of their methodological and contextual differences.

3.2 Share-ownership and commitment: Empirical evidence

There are several theories explaining the commonly-found positive outcomes of share-ownership schemes. The most widely-held view is that share-ownership schemes affect organisational performance by aligning employee interests with those of the organisation, thereby reducing the 'them and us' feeling between management and employees and generating greater organisational commitment (Conte and Svejnar 1990). It is believed that the committed employees are more productive and have a lesser propensity to quit, contributing to improved organisational performance (Pendleton 1998).

There is also some speculation as to how share-ownership schemes might improve commitment levels. This is explained by Klein (1987) through her three models of satisfaction. First, share-ownership schemes are seen to make employees feel like owners because of the 'intrinsic satisfaction' associated with the ownership of shares. Second, share-ownership is often accompanied by greater employee involvement in

decision-making, thereby making employees feel like they are part of the company. Finally, there is an 'extrinsic satisfaction' associated with the financial benefits to be reaped through the ownership of shares.

There have been several studies that have investigated the validity of these theories. The evidence is however, mixed. A majority of the studies report higher commitment levels in share-ownership firms (Bell and Hanson 1984; Bell and Hanson 1989; Buchko1992; Goldstein 1978; Jochim 1979; Long 1978; Long 1980; Marsh and McAllister 1981; Pendleton 2001; Oliver 1984; Pendleton et al. 1998; Russell et al. 1979; Rhodes and Steers 1981; Tucker et al. 1989). A relatively smaller number of studies suggest that share-ownership schemes do not seem to change organisational commitment (Dunn et al. 1991; French and Rosenstein 1984; Hyman et al. 1989; Marchington et al. 1994; Wilkinson et al. 1994; Poole and Jenkins 1990; Long 1980). Only a very small number of studies suggest that share-ownership schemes are associated with reduced levels of organisational commitment (Keef 1998; Kruse 1984 Long 1979, 1982). The studies are described in detail in Appendix 2.

Pendleton (2001) carried out an after ESO study of 5 bus companies and one company in the catering services sector and found that ESO schemes enhance commitment levels indirectly by influencing psychological ownership. An earlier study by Pendleton et al. (1998) on 4 employee-owned UK bus companies found a similar indirect positive association between ESO schemes and commitment.

Rhodes and Steers (1981) conducted a comparative analysis of a worker-owned firm and a conventional firm in the plywood industry in the US and reported higher commitment levels in the former. Other studies compared the attitude of shareholders with non shareholders in the same firm. Using this method, Long (1978) found that the stockholders show a much higher level of integration, involvement and commitment as compared to the non-stockholders in his study of a medium-sized trucking firm. Similarly, Russell et al. (1979) and Goldstein (1978) found that shareholders showed significantly higher levels of commitment as compared to the non-shareholders.

Oliver (1984) found higher commitment levels in the worker co-operatives, by comparing the commitment levels of 6 employee-owned worker co-operatives in Scotland and population norms. The individuals who join the co-operatives are a highly self-selected group whose values and goals match the values and goals of the organisation. It could be argued that this self-selection may cause high organisational commitment therefore these results needed to be substantiated by survey analyses.

Similar results were observed using a wider range of employee-owned firms. Using a sample of 30 direct share-ownership and 68 ESOP firms, Jochim (1978) found that the firms with employee-ownership had slightly higher commitment levels compared to the conventional firms. An attitude survey of 4,060 randomly selected employees in 12 profit-sharing companies by Bell and Hanson (1989) revealed that 73% of the respondents felt that profit sharing had improved the employee attitudes.

Whilst these studies broadened the analysis to a wide range of share-ownership establishments, they did not address the issue of causality. This issue was addressed by Tucker et al. (1989) who conducted a before and after study of a small employee-owned company in Richmond Virginia. They found that employee commitment and job satisfaction were higher after the implementation of ESO schemes. Similarly, Buchko (1992) in his before and after ESOP study of a medium-sized media and communications firm found that share-ownership schemes had a beneficial effect on organisational commitment.

Contradictory evidence is provided by studies which found insignificant or reduced levels of commitment in share-ownership establishments. For example, in an after ESO study of a large plumbing systems firm in the US, French and Rosenstein (1984) found an insignificant association between share-ownership and commitment. Another after ESO study of 3 firms in the food manufacturing sector in the UK by Hyman et al. (1989) revealed that there were no significant differences in attitudes between those who owned share-ownership schemes and those who did not. Furthermore, using a widely representative sample of 22 UK companies, Poole and Jenkins (1990), showed that, in a majority of cases, the schemes did not appear to make a difference to the employees' sense of commitment to their organisation. Insignificant associations with commitment were also observed by Marchington et al.

(1994) in their after share-ownership case study of a private family-owned Midlands textile manufacturer. Similar results were reported by a longitudinal case study of a machine tools company in the UK carried out by Wilkinson et. al (1994). Furthermore, Dunn et al. (1991) found unchanged commitment levels for employee-owners and non-employee-owners in a longitudinal analysis of a UK based manufacturing firm.

A number of longitudinal analyses also reported declining levels of commitment. Long (1979) conducted a longitudinal analysis of a 70% employee-owned medium-sized Canadian trucking and found that even though initially share-ownership has a positive link with commitment, these attitudes declined in the long run (after 18 months). Similarly, in a before and after longitudinal analysis of a partially employee-owned electronics firm in Canada, Long (1982) found that there was a decline in overall commitment levels after 18 months of introducing employee-ownership. The decline was sharpest amongst the employee-owners. Using a similar research design, Keef (1998) studied commitment levels in a large organisation operating in the high technology sector in New Zealand and reported an overall decline in organisational commitment subsequent to employee-ownership.

Similar results were obtained by Kruse (1984) in his comparative analysis of employee-owners versus employee non-owners in two employee-owned firms in the US. He found that the employee-owners in these firms had lower levels of attachment to their respective organisations compared to the employee non-owners. Further support for this finding was provided by Hyman et al. (1989) in their study of a brewing concern in North England. They found that non-participants in the share-ownership scheme had a more integrative and positive attitude towards the company.

The results of some of the studies are difficult to put into the categories of positive, negative or unchanged levels of commitment. For example, Long (1980) conducted a case study analysis of three share-ownership establishments and found enhanced commitment in two of the share-ownership establishments but reduced commitment levels in one.

Despite the mixed evidence there is strong evidence to suggest that ESO schemes are associated with higher levels of commitment. Virtually all previous research on share-ownership and commitment has conceptualised commitment as what Meyer and Allen (1997) would classify as 'affective commitment' or an 'affective bond' to an organisation (Culpepper et al. 2004). Hence, it could be argued that:

The presence of share-ownership has a positive effect upon feelings of affective commitment (*Hypothesis 17*)

However, there is also a significant amount of contradictory evidence. The differences in the results could be attributed to methodological and conceptual variations amongst the studies (Gamble 1988). They may also be attributed to the extrinsic and intrinsic factors that mediate the relationship between share-ownership and commitment. These factors could relate to the environment in which the scheme exists, or to the factors intrinsic to the share-ownership scheme itself.

3.3 Methodological factors

The methodological factors contributing to differences in outcomes range from the nature of the methodological construct; sample size; measures for commitment and the response rate of the studies.

3.3.1 Cross-section versus longitudinal analysis

A majority of the studies investigating the relationship between share-ownership and commitment rely on cross-sectional analysis (Bell and Hanson 1989; French and Rosenstein 1984; Goldstein 1978; Hammer and Stern 1980; Hyman et al. 1989; Jochim 1979; Klein and Hall; Kruse 1984; Long 1978; Marchington et al. 1994; Marsh and McAllister 1981; Oliver 1984; Pendleton 2001 and 1998; Poole and Jenkins 1988; Rhodes and Steers 1981; Russell et al. 1979; Wallace and Hanson 1984; Wider Share-ownership Council in Blanchflower and Oswald 1987). In comparison, relatively few conduct a longitudinal analysis (Buchko1992; Dunn et al. 1991; Keef 1998; Long 1979, 1980; 1981 and1982; Tucker et al. 1989; Wilkinson et al. 1994).

Furthermore, the results of cross-sectional analyses report either higher (Bell and Hanson 1989; Goldstein 1978; Jochim 1979; Klein and Hall 1988; Long 1978; Marsh and McAllister 1981; Oliver 1984; Rhodes and Steers 1981; Russell et al. 1979; Pendleton 2001 and 1998; Wallace and Hanson 1984; Wider Share-ownership Council in Blanchflower and Oswald 1987) or no difference in the attitudinal outcomes (French and Rosenstein 1984; Hyman et al. 1989 and 1989b; Hammer and Stern 1980; Marchington et al. 1994 and Poole and Jenkins 1988), with the exception of one study that reports negative commitment (Kruse 1984). In contrast, the results of the longitudinal analyses are evenly distributed between positive (Buchko1992; Tucker et al. 1989) and insignificant (Wilkinson et al. 1994; Dunn et al. 1991; Keef 1998) results. Some other studies reported positive (Long 1978 and 1979) or insignificant outcomes (Long 1981 and 1982) in the short run, but erosion of these positive effects in the long run.

On the whole, both the methodologies generated equally varied results and studies using identical research methodologies often reported conflicting results. Long (1980) in his study of three employee-ownership firms found that the firms differed markedly with respect to the levels of organisational commitment. Kruse (1984) in his study of two employee-ownership firms found that one of them reported lower levels of organisational commitment, while the other reported no difference in the levels of commitment, even though a similar methodology was applied in studying both.

3.3.2 After study versus comparative analysis

Within the broad frameworks of cross-sectional and longitudinal analysis there are various different approaches adopted for determining the effect of share-ownership on organisational commitment. Some studies capture the responses of shareholders subsequent to the ownership of shares to determine the effect of share-ownership on their feelings of commitment towards the firm (Pendleton 2001 and 1998; Jochim 1979; Wallace and Hanson 1984; Wider Share-ownership Council in Blanchflower and Oswald 1987; Marsh and McAllister 1981; Bell and Hanson 1989; Oliver 1984; Klein and Hall 1988; Goldstein 1978; French and Rosenstein 1984; Hyman et al. 1989 and 1989b; Hammer and Stern 1980; Marchington et al. 1994 and Wilkinson et al.

1994). Other studies use control groups, where they compare the employee attitudes in share-ownership firms with conventional firms without share-ownership (Rhodes and Steers 1981). Yet another approach is to compare the organisational commitment of share-owners with the non-share-owners within the same firm (Russell et al. 1979; Kruse 1984; Poole and Jenkins 1988; Long 1978, 1979, 1980, 1981 and 1982; Ramsay et al. 1989b; Dunn et al. 1991; Keef 1998).

A majority of the studies that capture the responses of the share-owners after setting up the scheme tend to report positive levels of organisational commitment (Bell and Hanson 1989; Goldstein 1978; Jochim 1979; Klein and Hall 1988; Marsh and McAllister 1981; Oliver 1984; Pendleton 2001 and 1998; Wallace and Hanson 1984; Wider Share-ownership Council in Blanchflower and Oswald 1987). However, it is unclear in these studies whether the positive commitment levels could be attributed to the hare-ownership schemes or to other environmental changes that take place alongside the share-ownership scheme, for example, changes in the laws, or market characteristics.

Studies that compare the commitment levels of a share-ownership firm with the non-share-ownership counterpart address the issue of attribution to some extent by controlling for the economic and political changes that might affect the commitment levels. For example, Rhodes and Steers (1981) compared the worker-owned firms with conventional firms. One of the greatest limitations of this study was that the control group may not have been strictly comparable to the worker-owned co-operative. The control group differed in terms of union representation and level of supervision. The worker-owned firm was free of a unionised environment and had less supervision than the conventional firm and the differences in commitment results could be attributed to these firm-specific factors. Hence, it is doubtful whether the experiences of a worker-owned co-operative could be applied to share-ownership firms in general. Furthermore, while the above study controls for environmental factors, it fails to control for changes within the firm such as restructuring and redundancies.

Studies that compare the attitude of shareholders with non-shareholders in the same firm control for these limitations. The results for these studies are mixed. Some of the

studies find that share-owners show higher levels of commitment than the non-share-owners (Long 1978 and 1980; Russell et al. 1979;). Other studies predict no differences between share-owners and non-share-owners with respect to the levels of commitment (Dunn et al. 1991; Keef 1998; Poole and Jenkins 1988;). Still others suggest that share-owners show lower levels of commitment as compared to their non-share-ownership counterparts (Hyman et al. 1989b; Long 1981 and 1982). While these studies were similar in that they compared employee-owners with employee non-owners, they differed with respect to other methodological dimensions; namely, the time-frame used for determining the levels of commitment, the sample size, the measure of commitment and response rates. Some of these methodological dimensions could be used to explain differences in the results.

3.3.3 Long-term versus short-term study of commitment

The amount of time that elapses between setting up a share-ownership scheme and the measurement of organisational commitment could be another factor contributing to the differences in results. There are only a limited number of studies that trace the commitment levels in share-ownership firms over different periods of time after introducing a share-ownership scheme (Long 1980, 1981, 1982, 1978 and 1979; Wilkinson et al. 1994). The studies generally find that there is an improvement in the levels of organisational commitment soon after the setting up of the share-ownership schemes but the positive effect seems to disappear over time (Dunn et al. 1991; Keef 1998; Kruse 1984;). However, some studies find share-ownership schemes had no effect on commitment levels even 6-8 months subsequent to the introduction of the scheme (Hammer and Stern 1980; Long 1982). Yet another study reported that share-ownership schemes are associated with performance improvements in the long run (Buchko 1992). Buchko (1992) found that share-ownership schemes appeared to have a positive effect upon organisational commitment even after six years.

It is difficult to define the concepts of short-term and long-term quantitatively. The dynamic environment in which share-ownership schemes operate, combined with the heterogeneous nature of share-ownership schemes, makes it very difficult to arrive at a timeline whereby the full or partial effect of share-ownership schemes on organisational commitment can be captured.

On the whole, the results suggest that there is a strong possibility that the time between share-ownership implementation and the measurement of commitment influences the share-ownership and commitment relationship. However, there is a lack of consensus regarding the amount of time that should elapse so that ESO schemes yield desired commitment outcomes.

3.3.4 Case study versus survey analysis

The size of the sample could be another important factor contributing to the variability of the results. Most of the case studies focus on a single (Buchko 1992; Dunn et al. 1991; Goldstein 1978; Hammer and Stern 1980; Hyman et al. 1989; Keef 1998; Long 1980, 1981and 1982; Rhodes and Steers 1981; Tucker et al. 1989) or a small number of share-ownership companies (Kruse 1984; Marchington et al. 1994; Oliver 1984; Sockell 1985). In comparison, very few studies rely on survey analysis (Bell and Hanson 1989; Jochim 1979; Klein and Hall 1988; Marsh and McAllister 1981; Poole and Jenkins 1988; Wider Share-ownership Council in Blanchflower and Oswald 1987).

The results for share-ownership and commitment are much more varied for studies that adopt a case study approach as compared to survey analysis. Case studies report results ranging from positive (Buchko 1992; Goldstein 1978; Long 1978 and 1980; Rhodes and Steers 1981; Russell et al. 1979; Pendleton 2001 and 1998; Tucker et al. 1989;), negative (Long 1981 and 1982; Kruse 1984) to insignificant relationships (Dunn et al. 1991; French and Rosenstein 1984; Hammer and Stern 1980; Hyman et al. 1989; Keef 1998; Kruse 1984; Long 1980; Marchington et al. 1994; Poole and Jenkins 1988; Ramsay et al. 1989b; Sockell 1985; Wilkinson et al. 1994). In comparison, survey-based analyses generally report positive effects on commitment (Marsh and McAllister 1981; Wider Share-ownership Council in Blanchflower and Oswald 1987). The sample sizes range from 12 (Bell and Hanson 1989), 37 (Klein 1987; Klein and Hall 1988), 30 direct ownership and 68 ESOPs (Jochim 1979) to over a hundred share-ownership firms (229) (Marsh and McAllister 1981). Those studies based upon the case study approach may suffer from selectivity bias by choosing companies that have certain specific characteristics which might positively influence

the relationship between share-ownership schemes and organisational commitment. The larger the sample, the smaller is the probability of the selectivity bias and the greater the generalisability of the results.

3.3.5 Responsiveness bias

The studies differ from each other with respect to the response rate. Using response rate as a distinguishing criterion clearly reveals certain trends. The studies with high response rates (of about 70 percent) and above generally report lower or no difference in the commitment levels (French and Rosenstein 1984; Hammer and Stern 1980; Hyman et al. 1989; Keef 1998; Kruse 1984; Long 1981; Wilkinson et al. 1994). Conversely, the studies with lower response rates (ranging between 30-60%) show that share-ownership schemes are associated with higher commitment levels (Buchko 1992; Goldstein 1978; Long 1978 and 1980; Marsh and McAllister 1981; Pendleton 2001).

Studies that generally have lower response rates are subject to a responsiveness bias whereby only the responses of certain employees or certain types of employees are captured. For example, the positive commitment results may be reported because the employees that are more committed to the organisation as a whole are more likely to answer the questionnaire.

3.3.6 Measurement of the commitment variable

There has been much debate as to the definition of organisational commitment as well as its measurement; this has lead to several standardised frameworks for measuring organisational commitment. The more positive results are generally reported amongst the studies that use a wide range of commitment measures based upon the Mowday et al. (1979) framework. Those that rely on a single measure of commitment like 'loyalty' or 'identification' or a few measures of commitment based on the Cook and Wall (1980) framework tend to show greater variations in results.

Using the Mowday et al. framework (1979), measured by a 15 item organisational commitment questionnaire, Buchko (1992) and Klein and Hall (1988) found that share-ownership schemes have a beneficial impact upon organisational commitment.

The results on using the Cook and Wall (1980) framework, which looks at identification, involvement and loyalty, were more divided. Some of the studies found that share-ownership schemes have a positive effect upon organisational commitment (Oliver 1984), while others found an insignificant effect (Keef 1998). Pendleton (1998 and 2001) adopted a blend of the Cook and Wall (1980) and the Mowday and Steers (1979) framework, using identification, involvement and the propensity to quit as measures of employee commitment. He reported that, while share-ownership schemes do not directly influence employee commitment in these firms, individual share ownership has an indirect effect, in so far as this influences the feelings of ownership, which has a powerfully significant effect on the four commitment measures (2001:171).

Others used loyalty as a measure of organisational commitment and reported the widest range of outcomes. The results ranged from higher (Long 1978; 1980) to lower (Long 1981) and insignificant (Dunn et al. 1991; Long 1981 and 1980) levels of organisational commitment. Finally, using identification as a measure of commitment based upon the Steers (1977) framework, the results varied between reduced (Kruse 1984) and unaltered (French and Rosenstein 1984; Kruse 1984) levels of organisational commitment.

Models using a broad range of commitment measures include the various dimensions of organisational commitment. However, some of them might also run the danger of including attitudinal measures that may not necessarily measure commitment. A good measure would be representative of the key dimension of commitment that would impact upon organisational performance without incorporating too many unrelated or loosely related measures. Loyalty and identification are good measures of affective commitment, the dimension of commitment most relevant to impacting upon organisational performance.

Even when there is a consensus regarding the measurement of commitment, it must be noted that the measurement itself is dependent upon the subjective responses of employees or managers based upon their perceptions of reality (Pendleton 2001). This fact adds yet another dimension of ambiguity to the satisfactory measurement of commitment.

Hence, for determining a realistic estimate of organisational commitment, it may be desirable to adopt a measure of commitment which takes into account the key dimensions of organisational commitment or focuses on the dimensions which are most relevant to the research question. For example, if the objective is to determine whether share-ownership affects performance through commitment then, it would be wise to identify the aspect/s of commitment which would have the strongest effect upon the performance outcomes as well as employee productivity.

3.4 Share-ownership and commitment: Contextual factors

Contextual factors are related to the environment in which the schemes exist. The environment could be broadly classified into economic, political, industrial or the organisational climate surrounding the share-ownership schemes. Even though each of these factors will be discussed individually, these dimensions of the environment are closely intertwined and interact with one another to influence the relationship between share-ownership and commitment. This makes it equally difficult to isolate the impact of each of these factors on the ability of the share-ownership schemes to influence the levels of organisational commitment. Since the studies differ from each other with respect to the environment in which they are conducted, these cultural, political, economic, industrial and organisational differences could account for some of the differences in the results (Gamble 1988; Long 1980; Nichols and Davidson 1992).

3.4.1 UK versus US studies

Variations in the results could be attributed to the location of the studies. Studies conducted in the UK conclude that share-ownership is either associated with higher commitment or that share-ownership schemes have no effect on commitment. In

addition to these findings, US-based studies also included results suggesting that shore-ownership can be associated with lower commitment levels.

The relatively small range of results presented in the UK based studies could also be attributed to the limited investigation of the ESO/commitment issue in the UK (Bell and Hanson 1989; Dunn et al. 1991; Hyman et al. 1989 and 1989b; Marchington et al. 1994; Oliver 1984; Pendleton 2001 and 1998; Poole and Jenkins 1988; Wallace and Hanson 1984) compared to the US evidence (Blasi et al. 2003; Buchko 1992; Culpepper et al. 2004; French and Rosenstein 1984; Hammer and Stern 1980; Jochim 1979; Klein and Hall 1988; Kruse 1984; Long 1980; Marsh and McAllister 1981; Poutsma and Nijs 2003; Russell et al. 1979; Rhodes and Steers 1981; Sockell 1985; Tucker et al. 1989). Therefore, a more balanced view regarding the effect of location on the ESO/commitment link can be achieved by adding to the UK experience.

3.4.2 Organisational restructuring

Organisational change introduces an element of uncertainty which could adversely influence the levels of employee commitment to the organisation. It is likely that share-ownership schemes introduced in environments characterised by uncertainty will be unable to reap the benefits generated by other share-ownership schemes introduced in relatively stable environments. This is particularly the case when restructuring and layoffs are introduced, since these changes are unlikely to boost employee morale. The effect of restructuring on the share-ownership and commitment relationship is illustrated in some of the case studies (Keef 1998; Long 1982; Marchington et al. 1994). Keef (1998) found that lay-offs due to organisational restructuring contributed to reduced employee morale and hence reduced levels of commitment. A similar reason for declining levels of commitment was provided by Long (1982) and Marchington et al. (1994).

3.4.3 Employee Share-Ownership schemes and participation in decision-making schemes

Share-ownership schemes are often accompanied by participation in decision-making. This raises two issues. First is the issue of attribution. The bundling of the schemes

makes it important to determine whether the changes or lack of changes in the commitment levels could be attributed to the share-ownership schemes, or to the participation in decision-making schemes that accompany it. Second, there is the issue of interaction. This raises the question of how the combination of share-ownership schemes and participation in decision-making might influence the levels of commitment as opposed to having share-ownership alone.

3.4.3.1 Issue of attribution

Studies have suggested that participation in decision-making alone has an impact upon levels of commitment (Dachler and Wilpert 1978; Goldstein 1978; Katz et al. 1983; Long 1978, 1980 and 1981; Rhodes 1978; Sockell 1985). In fact, participation in decision-making is believed to be more strongly associated with commitment than share-ownership (Long 1978 and 1980). Implicit in Long's finding is the assumption that both ESO schemes and employee participation schemes positively influence commitment levels. This observation needs to be widely tested so as to address the issue of attribution. This can be achieved by testing the following hypothesis:

Employee Share-Ownership schemes continue to have a positive and significant association with commitment even when employee participation schemes are present (*Hypothesis 18*).

3.4.3.2 Interaction effects

Kruse (1984) suggested that employee participation in decision-making should coexist with ESO schemes, so as to yield positive attitudinal changes. There exists a theoretical construct suggesting that share-ownership schemes accompanied by participation in decision-making has more beneficial effects upon employee morale and commitment as compared to share-ownership alone (Blair and Kruse 1999; Conte and Svejnar 1990; Kaufman and Russell 1995 and Klein 1987). It is argued that when share-ownership schemes are accompanied by participation in decision-making, employees feel more like owners and they can perceive a clearer 'line-of-sight' between their efforts and rewards because they have some control over the final outcomes.

A large number of studies have investigated the combined effect of share-ownership and participation in decision-making on commitment. Surprisingly, the evidence is mixed. A majority of the studies report higher (Buchko 1992; Klein and Hall 1988; Long 1980; Pendleton 2001; Rhodes and Steers 1981;) or no difference in the levels of commitment (Dunn et al. 1991; French and Rosenstein 1984; Hyman et al. 1989; Hammer and Stern 1980; Keef 1998; Long 1978;Marchington et al. 1994, Marchington et al. 1992). There are a few studies that report lower levels of commitment (Kruse 1984; Long 1981 and 1982).

However, none of these studies have explicitly investigated whether the combined effect of share-ownership and participation in decision contributes towards higher levels of commitment as compared to share-ownership alone. However, there have been studies that have attributed unchanged or declining levels of commitment towards the non- existence of formal participation in decision-making schemes in share-ownership firms (Kruse 1984; Sockell 1985; Wilkinson et al. 1994). Kruse (1984) attributed the reduced levels of commitment amongst share-owners to unmet expectations with regard to more information, a friendlier atmosphere, say in decisions and better treatment accompanying ESO schemes. Similarly, Wilkinson et al. (1994) found that share-ownership schemes failed to bring about any changes in employee commitment. This coincided with the employees expressing dissatisfaction about the lack of information about ESO schemes and the little participation in decision-making that existed. Furthermore, Sockell (1985) found that the ESO schemes were unable to change the levels of commitment in share-ownership firms that did not have any form of participation in decision-making. Therefore, the studies seem to suggest that the share-ownership schemes are unable to improve levels of commitment in the absence of participatory mechanisms. Hence, it could be argued that share-ownership establishments with participation in decision-making schemes have higher commitment levels compares to those establishments that have only share-ownership schemes. This evidence yields the hypothesis that **when an Employee Share-Ownership scheme is combined with participation in decision-making schemes, it yields positive and higher levels of commitment relative to the presence of share-ownership alone (*Hypothesis 19*)**

3.4.3.3 Desires for participation in decision-making

It is possible that the mere presence of a formal participation in decision-making scheme may not guarantee an improvement in commitment levels amongst share-owners (Trewhitt 2000). It may be the desires for and perceptions of participation in decision-making that mediate the combined effect of share-ownership and participation in decision-making on commitment (Pendleton 2001). Therefore, employee desires for participation in decision-making and their perceptions of reality could account for some of the variations in the findings. There are two questions to be addressed. First, do employees desire participation in decision-making? Second, does the ownership of shares *per se* affect the desires for participation in decision-making?

There is strong evidence to suggest that employees, in general, have a positive view of participation in decision-making (Long 1981; Ramsay et al. 1989b) and they desire greater participation in decision-making (Kruse 1984; Long 1979; Trewhitt 2000). Even though employees appear to desire greater participation in decision-making, there is not sufficient evidence to suggest that share-ownership *per se* increases employees desires for participation in decision-making. In fact, there is debate about whether share-owners desire greater participation in decision-making as compared to the non-share-owners. According to Long (1979), employee-owners do not seem to differ from the non-employee-owners in terms of their desire for participation in decision-making. Another point of view is that employee-ownership leads to declining desires for participation in decision-making (Long 1981 864). One explanation for such reduced desires for decision-making is that the employee-owners prefer to delegate the decisions to experts so as to optimise the returns associated with their financial investments (Hammer and Stern 1980; Long 1981 and 1982). Hammer and Stern (1980) argue that the more workers have invested in a firm, the more they preferred to delegate. The more equity one has in a company, the more one stands to lose should the venture fail, and delegating decision-making to acknowledged experts seems a judicious choice (Hammer and Stern 1980: 97). This point of view is supported by French and Rosenstein (1984), who suggest that the employee-owners expect satisfactory financial returns, but not necessarily greater participation in decision-making.

Yet others argue that employee-owners like to participate in some decisions and not others (Kruse 1984; Trewhitt 2000). Trewhitt (2000) found that the non-share-owners wanted more involvement than the share-owners on a majority of issues like overall company policies, departmental issues, and matters affecting their jobs. However, share-owners wanted greater involvement in areas like investment decisions, training and the introduction of new products and services. This may be because the share-owners show greater concern regarding how their investment is being used. Similar preferences for certain types and levels of participation in decision-making amongst share-owners were reported by Kruse (1984).

This observation by Trewhitt (2000) and Kruse (1984) introduces another dimension to the issue of participation in decision-making, i.e. the heterogeneity of the participation in decision-making schemes. Long (1982) emphasises the need to look at various types and levels of participation in decision-making. This observation opens up the possibility that share-owners may respond differently with different types or different levels of participation in decision-making.

3.4.3.4 Type of participation in decision-making

The most common types of participation in decision-making associated with employee share-ownership are voting rights and board representations. There is no evidence to suggest that employee share-owners report markedly different attitudinal outcomes based upon whether they have board representation or voting rights. In fact, French and Rosenstein (1984) and Long (1978) report no changes in levels of commitment despite the existence of voting rights and board representation amongst share-owners. Furthermore, Kruse (1984) suggests that participation in decision-making like voting rights and elected board representatives are not sufficient (ibid. 1984: 146). These have symbolic value, but may not influence the desires for participation in decision-making.

3.4.3.5 Level of participation in decision-making

The levels of participation in decision-making can be broadly classified into job-level and organisational-level participation in decision-making. Job-level participation in

decision-making is concerned with issues of immediate concern to the employees like pay, health and safety issues. In contrast, organisational-level participation in decision-making involves strategic decisions concerning the organisation, such as mergers and acquisitions and policy decisions.

There is strong evidence which suggests that the level of participation in decision-making is an important factor influencing the relationship between share-ownership and commitment (Kruse 1984; Long 1979; Pendleton 1998 and 2001; Trewhitt 2000). Therefore, it is important to make the distinction between different levels of participation in decision-making.

However, there is mixed evidence as to how the employee share-owners respond to different levels of participation in decision-making. Some suggest that share-owners desire greater participation in decision-making at all levels (Long 1979 and 1982). Employee-owners were found to desire participation in decision-making at the job, departmental and organisational-level (Long 1979 and 1982). Others suggest that the employee-owners show a clear preference for decisions that concern their jobs rather than issues at the organisational-level (Kruse 1984; Pendleton 2001; Pendleton et al. 1998). Kruse (1984) found that employees desire greater participation in decision-making on issues related to their job compared to the organisation. Still others report that the employee share-owners desire more involvement in decisions that directly concern their investment returns (Trewhitt 2000).

On the whole, there appears to be a consensus that different levels of employee participation schemes have a differential impact upon the share-ownership/commitment relationship. This leads to the hypothesis that **commitment levels are higher when employee share-owners can contribute to decisions directly related to the their jobs compared to decisions that concern the organisation as a whole (*Hypothesis 20*)**

3.4.3.6 Managerial versus non-managerial share-owners

Pendleton (2001) suggested that the occupational position rather than the level of share-holdings is an important factor influencing the desire for participation in

decision-making. The occupational distribution can be broadly classified into managerial and non-managerial share-ownership. It is possible that managerial share-owners respond differently to share-ownership. However, French and Rosenstein (1984) suggested that the desire for influence accompanying share-ownership is not affected by the level of employee control. Furthermore, Long (1981) suggested that there were no significant differences in attitudes between managerial and non-managerial employees.

3.4.3.7 Perceptions of participation in decision-making

Differences in employee perceptions can be another factor contributing to different interaction effects between share-ownership and participation in decision-making. For example, if the employee-owners desire participation in decision-making, but do not perceive that their needs for participation are met, this could result in dissatisfaction and reduced levels of commitment. Furthermore, if their perceptions with respect to the participation in decision-making matched their desires or expectations for greater involvement, then it is likely that participation in decision-making will improve their commitment (Buchko 1992; Pendleton et al. 1998; Pendleton 2001;). Indeed, perceptions of participation in decision-making may also influence the extent to which employee-share-holders feel like owners of the firm. These feelings of psychological ownership can, in turn, impact upon the levels of commitment (Pendleton 2001).

According to Buchko (1992) and Pendleton (2001), perceived influence as a result of share-ownership has a positive link with organisational commitment and satisfaction. Poole and Jenkins (1988) found that there was no change in the commitment levels of employee-owners despite the existence of share-ownership and formal participation in decision-making schemes. One of the possible reasons for this outcome could be attributed to the fact that the employees did not really perceive that there was increased participation in decision-making accompanying share-ownership. Long (1982) found that the group of share-owners that perceived greater participation in decision-making reported a positive increase in commitment, whereas those share-owners that perceived unchanged participation in decision-making reported a decline in commitment. Furthermore, there was an overall decline in commitment levels in the long-run after 18 months of share-ownership implementation, since most of the

non-managers and shareholders did not perceive that there were increases in the participation in decision-making. However, Tucker et al. (1989) provided contradictory evidence by finding that employee commitment and job satisfaction were higher subsequent to the setting-up of the ESO scheme, even though perceived levels of involvement in decision-making did not change. It is possible that the small size of the firm that they studied ensured that the employees had sufficient participation in decision-making and that there were satisfactory communication systems to allow share-ownership schemes to reap the desired improvements in commitment levels.

3.4.3.8 Managerial commitment to the employee involvement schemes

Management commitment to the success of the share-ownership was identified as another key factor influencing the ability of the share-ownership schemes to improve organisational commitment (Klein and Hall 1988; Klein 1987). Klein showed that management commitment to the philosophy of employee-ownership is significantly related to employee outcomes (ibid.: 328).

Pierce et al. (1991) further argue that the managements' philosophical orientation is likely to influence the amount, timing and the kind of information that is shared with the employee-owner as well as the size of the financial contribution to the employee-ownership scheme. Long (1981), Rosen and Quarrey (1987) argued that the lack of managerial commitment to employee-ownership often prevent the formal participatory mechanisms from yielding the desired results (ibid.: 129). Indeed, evidence suggests that, in those cases where there was a lack of management support, share-ownership schemes failed to have any impact upon the commitment levels.

Long (1982) suggested that management did not want to relinquish control and allow for employee involvement in the true sense. This could be one of the factors associated with the apparent inability of share-ownership schemes to improve commitment levels in the long run. Similar evidence was provided by Marchington et al. (1992), who attributed unchanged commitment levels to the observation that employees did not believe that the management was genuinely interested in improving employee involvement. This finding was supported by Wilkinson et al. (1994)

suggested that the lack of management support contributed to the lack of improvements in commitment levels.

3.4.4 Employee Share-Ownership schemes and other financial participation schemes

ESO schemes are often accompanied by other financial participation schemes like Profit-Related Pay or Deferred Profit-Sharing schemes. (Wood 1996, in McNabb and Whitfield 1998). There is much speculation as to whether the presence of other financial participation schemes dilute the effect of ESO schemes on levels of commitment. In principle, share-ownership schemes do more than allow employees to share in the financial prosperity of the company. They enable employees to feel like owners. This feeling of ownership due to the intrinsic and extrinsic satisfaction associated with employee-ownership generates feelings of greater loyalty and affective commitment to the establishment.

There have been studies that have investigated the effects of profit-sharing schemes (Wallace and Hanson 1984 in Blanchflower and Oswald 1987) or share-ownership schemes and profit-sharing schemes on the levels of commitment (Marchington et al. 1994). However, none of the studies have compared the relative effects of the different financial participation schemes on commitment levels and this is yet another area worthy of future investigation. Hence, it could be argued that **the positive relationship between Employee Share-Ownership schemes and commitment levels will exist even if other financial participation schemes are present (*Hypothesis 21*)**

3.4.5 Share-ownership and communication schemes

According to research findings, good communication is positively and significantly related to satisfaction with share-ownership and employee-perceptions of worker influence (Klein 1987: 329). Furthermore, Klein and Hall (1987) reported that a good communication programme in a share-ownership firm is positively related to feelings of satisfaction with the scheme and with improved organisational commitment.

There is strong evidence to suggest that share-ownership firms that have good communication programmes generally report positive commitment levels (Klein and Hall 1987; Long 1980). Conversely, share-ownership firms with poor communication systems appear to generate negative or insignificant levels of commitment (Kruse 1984; Wilkinson et al. 1994). However, Poole and Jenkins (1990) found that, despite the improvement of communication systems accompanying share-ownership schemes, there appeared to be little effect upon the commitment levels of the employees. Similarly, the National Centre for Employee-Ownership research, of over thirty companies, found that the communications programmes in share-ownership establishments had little effect on employee attitudes (Rosen and Young 1991). This is seen to be because managers are often ignorant about the quality of communication systems in their establishment. This argument is supported by the finding by the ESO scheme Association of America that 71 percent of the managers mistakenly assumed that employees have a good understanding of their ESO schemes (Blasi 1988).

Overall, the results clearly suggest that the presence or absence of communication systems influences commitment levels amongst share-owners. At the same time it raises the question as to whether the changes in the commitment levels should be attributed to the share-ownership schemes or to the communication systems accompanying these schemes.

3.5 Share-ownership and commitment: Share-ownership characteristics

The contextual factors explain some of the variations in the results. However, the discussion of share-ownership and commitment is incomplete without acknowledging the characteristics of the share-ownership scheme that influence the impact of ESO schemes on commitment. ESO schemes differ from each other in a number of ways. The reason behind setting up the scheme, the proportion of employees covered by the scheme, the size of the equity stake, size of individual shareholdings are some of the characteristics of the scheme which may influence the commitment outcomes and explain variations in the results.

3.5.1 Reason behind setting up of an Employee Share-Ownership scheme

Share-ownership schemes may be introduced for a variety of reasons. However, they can be broadly classified into employee-benefit and tax-benefit reasons. The reasons behind the setting up share-ownership schemes may have effects on other factors that influence the share-ownership and commitment relationships, for example, management commitment to the scheme, presence of formal participatory mechanisms, coverage of the scheme. Furthermore, employee perceptions of share-ownership and the feelings of psychological ownership may be influenced by the perceived and stated reasons for setting up of the share-ownership schemes.

The evidence is mixed. Some studies report higher commitment levels amongst share-ownership companies that introduce a scheme for employee-benefit reasons (Maudlin 1999; Klein and Hall 1988). Other studies report declining levels of commitment for firms that introduced the share-ownership schemes for tax-benefit reasons or as an investment initiative (Kruse 1984; Hammer and Stern 1980). However, insignificant commitment levels were reported in firms, despite introducing share-ownership schemes as part of a participatory policy (Marchinton et al. 1994; Ramsay et al. 1989b) or to improve employee loyalty (Hyman et al. 1989).

These variations in results could be attributed to the fact that there might be a divergence between the stated reason and employee perceptions of the true reason behind setting up the schemes. The importance of perceptions was established by Marchington et al. (1992), found that, even though management claimed to introduce share-ownership schemes as part of a participatory policy employees perceived it differently. Furthermore, there can be more than one reason for setting up the share-ownership schemes. More importantly, determining the reason for setting up the scheme is difficult because there may be a divergence between the stated objective and the implicit or real reason for the setting up of the scheme. However, the reason behind implementing an ESO scheme can be reflected in tangible factors such as participation in decision-making schemes and the coverage of the share-ownership schemes. For example, ESO schemes that allow for greater participation in decision-making are likely to be more employee oriented relative to ESO schemes that do not have any such provisions.

3.5.2 Share-ownership coverage

Share-ownership schemes have various dimensions and the different dimensions of share-ownership could have an impact upon the commitment levels. Long (1980) identified three key dimensions of share-ownership - the proportion of employees covered by the scheme, the equity stake held by the employees and the equality of stock ownership amongst the employee-owners. The purest case is one where 100% of the employees own 100% of the equity stake with an equal distribution.

The majority of the evidence suggests that share-ownership firms that are 100% employee-owned or have a majority of the employees owning most of the equity stake generally report higher levels of commitment (Bradley et al.; Buchko 1992; Goldstein 1978; 1990; Jochim 1979; Long 1978; Long 1980; Oliver 1984; Rhodes and Steers 1981; Russell et al. 1979).

Generally 100% employee-owned firms report improved commitment levels (Oliver 1984; Bradley et al. 1990 Russell et al. 1979; Rhodes and Steers 1981; Long 1980). Higher levels of commitment were also reported in cases where 70% of the non-managerial employees owned all the company stock (Long 1978), and in a case study where 49% of the employees owned all the issued capital (Goldstein 1978). Furthermore, Buchko (1992) found higher levels of commitment when 80% of the shares were held by the ESO schemes. Jochim (1979) found higher commitment levels when employees owned at least 50% of the stock (Jochim 1979).

Contradictory evidence was provided by Kruse (1984) and Pendleton et al. (1998), both of whom found that higher commitment levels were not reported in establishments with 100% employee-ownership. Kruse (1984) reported lower levels of commitment and Pendleton et al. (1998) and Pendleton (2001) reported no difference of commitment. Even though these share-ownership firms adhered closely to the definition of pure employee-ownership, they did not fulfil the criteria for equal distribution of the shares amongst the employee-owners. In both the studies by Kruse (1984) and Pendleton (2001), there was unequal distribution of the shares with the main concentration amongst the managerial employees. The results seem to suggest

that the distribution and allocation of shares within the share-ownership establishments contributes to the variations in the results amongst broad-based share-ownership establishments. Therefore, the diversity in the share-ownership and commitment results is influenced by the share-ownership coverage as well as the distribution or the shares within the share-ownership establishments.

3.5.2.1 Managerial versus non- managerial share-ownership coverage

There is evidence to suggest that cases where the schemes are concentrated in the hands of a few managerial employees reduced or unchanged levels of commitment were observed (French and Rosenstein 1984; Pendleton et al. 1998; Kruse 1984).

French and Rosenstein (1984) found no difference commitment levels in a firm where the ownership was confined to managerial employees i.e. 20% of the managerial employees owned 76% of the shares. Similarly, Pendleton et al. (1998) reported no direct relationship between share-ownership and commitment in a study of 5 share-ownership firms where the top managers owned 51% of the equity and the other employees owned 49% of equity stake. Finally, Kruse (1984) reported reduced levels of commitment in a longitudinal study of a manufacturing concern where 6 managers owned 48% of the shares and 52% of the equity was owned by the non-managerial employees in the ESOP. Overall, there is supportive evidence to suggest that the occupational distribution of the equity stake influences the effect of ESO schemes on commitment levels. Therefore, it could be hypothesised that **when share-ownership schemes are confined to 'managerial employees only' the commitment levels observed are higher than schemes that also include non-managerial employees (*Hypothesis 22*)**

3.5.2.2 Broad-based versus minority share-ownership coverage

It is possible that the coverage of the scheme, irrespective of the occupational distribution, is an important factor influencing employee commitment. Broad coverage could either mean that a majority of the employees are eligible to participate in the scheme or it could mean that a majority of the employees actually participate in the schemes. Broad-based schemes which cover the majority of employees report

higher levels of commitment, as opposed to schemes which are restricted to a small number of employees.

Broad-based schemes are generally associated with high commitment levels (Buchko 1992; Goldstein 1978; Jochim 1979; Long 1978; Long 1980; Oliver 1984; Pendleton et al. 1998; Pendleton 2001; Russell et al. 1979). In contrast, narrow-based schemes are generally associated with negative (Long 1981) or insignificant levels of commitment (French and Rosenstein 1984; Hyman et al. 1989; Hammer and Stern 1980; Keef 1998; Wilkinson et al. 1994).

There is, however, evidence which suggests that not all broad-based share-ownership schemes are associated with positive levels of commitment. In some cases majority coverage has a negative or insignificant association with commitment (Dunn et al. 1991; Kruse 1984; Marchington et al. 1994; Ramsay et al. 1989b). Closer inspection of some of these studies reveals that broad-based schemes which have majority-eligibility, but where only minority of the employees actually own shares, report unchanged levels of commitment after the introduction of the share schemes (Dunn et al. 1991; Marchington et al. 1992; Ramsay et al. 1989b). This is because not all eligible employees actually participate in the scheme. For example, in a study by Hyman et al. (1989), the majority of employees of an organisation were eligible, but only 10% of the eligible employees owned shares. The commitment levels did not change significantly after the introduction of ESO schemes. Similarly, Dunn et al. (1991) reported no difference in the levels of commitment in a firm where only a 12% of the eligible employees participated in the scheme.

The discrepancy between eligibility and participation could explain some of the contradictory evidence with respect to broad-based share-ownership coverage and commitment levels. Even if share-ownership establishments have majority-eligibility, workers show low levels of commitment if they have minimal participation. Hence, it is participation rather than eligibility that appears to be a key determinant of the share-ownership coverage and commitment relationship. It could therefore be argued that **when the majority of employees participate in share-ownership schemes, higher levels of commitment are observed compared to a situation when the majority of employees are eligible for the scheme (*Hypothesis 23*)**

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Furthermore, previous results reporting higher commitment levels in broad-based share-ownership establishments compared to those that do not necessarily have majority coverage, could be refined by hypothesising that **when a majority of the employees participate in the share-ownership schemes higher levels of commitment are observed compared to a situation when employees belong to firms where Employee Share-Ownership schemes are present (*Hypothesis 24*)**

Following from Hypotheses 23 and 19 it can be expected that **share-ownership establishments where majority of employees own shares and have participatory rights have higher commitment levels than in those establishments where the employees have similar participatory rights and a majority of the employees are eligible for share-ownership (*Hypothesis 25*)**

Following from Hypotheses 24 and 19 it can be expected that **share-ownership establishments where a majority of the employees own shares and have participatory rights have higher commitment levels relative to those share-ownership establishments where share-ownership schemes are present (irrespective of coverage) and the employees have participatory rights (*Hypothesis 26*)**

3.5.3 Financial value of Employee Share-Ownership schemes and commitment

The discrepancy between the proportion of employees who are eligible and those who actually participate in the scheme raises question regarding the factors that influence the employee decision to participate in the scheme. Some argue that it is the committed employees that are more likely to participate. Others suggest that the financial position of the employees (Dunn et al. 1991) and the expectations of financial rewards are the key factors influencing the employee decision to join a scheme (Dewe et al. 1988; Hyman et al. 1989 and 1989b; Keef 1988).

There is strong evidence to suggest that the financial value of share-ownership is a factor that influences the commitment levels associated with share-ownership. Share-ownership schemes that have high financial worth are generally associated with

higher commitment (Buchko 1992; Goldstein 1978; Klein and Hall 1988; Pendleton et al. 1998). Other studies suggest that schemes that are associated with low financial returns generally report no difference in the levels of commitment (Dunn et al. 1991; French and Rosenstein 1984; Keef 1998; Marchington et al. 1994; Sockell 1985; Wilkinson et al. 1994)

Marchington et al. (1994) attributed the insignificant associations with commitment in their study to the low financial value of share schemes offered to the employees. Sockell (1985) suggested that the unaltered commitment levels could be attributed to the inability of these schemes to meet the financial aspirations of the employees. Goldstein (1978) concluded that positive employee shareholder perceptions could be attributed to the intrinsic feeling of ownership and the extrinsic benefits associated with economic gain. Klein (1987) suggested that if the ownership experience is financially rewarding then there will be higher organisational commitment. Furthermore, Klein and Hall (1988) concluded that financial rewards are an important factor contributing to share-ownership satisfaction and employee commitment levels. Buchko (1992), found that the increased financial value of share-ownership had a positive effect on organisational commitment and satisfaction.

According to French and Rosenstein, 'employees look upon share-ownership primarily as a financial investment and they expect satisfactory economic returns from it' (1984: 868). Wilkinson et al. (1994) attribute negative attitudes to the negligible financial benefits associated with share-ownership. Dewe et al. (1988) arrived at a similar conclusion and suggested that financial benefits were an important joining consideration. Keef (1998) and Dunn et al. (1991) attributed insignificant changes in the commitment levels of employee share-owners, to the decline in the share prices. Finally, Kruse (1984) found that the older employees favoured the share-ownership schemes to the younger employees predominantly because the time-frame for reaping the financial benefits was shorter for the older employees as compared to the younger employees.

3.5.4 Size of individual share holdings

Pendleton et al. (1998) and Pendleton (2001) suggest that individual share holdings have an important influence on the levels of commitment. Goldstein (1978) reported significantly higher levels of commitment for large shareholders (300-10,000 shares) as compared to small share-holders (10 to 200 shares). Furthermore, Klein (1987) suggested that the size of individual shareholdings is important in influencing employee attitudes. According to Pendleton (2001), higher levels of individual shareholdings are associated with a positive assessment of the changes. Favourable perceptions have an influence upon feelings of ownership, and this in turn, might have a favourable effect upon commitment (Pendleton et al. 1998).

Overall, the empirical evidence on share-ownership and affective commitment suggests **that Employee Share-Ownership schemes enhance organisational performance through higher commitment levels (*Hypothesis 27*)**

3.6 Share-ownership and employee turnover: Empirical evidence

There are theoretical arguments (Pierce et al. 1991; Rhodes and Steers 1981; Long 1978a) which suggest that reduced employee turnover is another route through which share-ownership schemes can impact upon performance. Share-ownership schemes can reduce employee turnover by providing financially lucrative incentives that are proportionately linked to the number of years in employment. Financial rewards make it expensive for share-owners to quit therefore act as 'golden handcuffs' (Blair and Kruse 1999; Conte and Kruse 1991; Richardson and Nejad 1986; Wilson et al. 1990). However, Culpepper et al. (2004) challenge this position by suggesting that the high financial rewards associated with share-ownership schemes are likely to lower the opportunity cost of leaving the firm, thereby weakening the effect of continuance commitment and consequently increasing attrition rate.

There are also various arguments as to why reduced employee turnover should enhance organisational performance. A common argument is that the cost savings associated with reduced turnover can contribute towards improved organisational effectiveness and enhanced profitability (Phillips 1996 in Glebbeek and Bax 2004). A

further argument is that reduced employee turnover can encourage firms to increase firm-specific capital investment and this, in turn, improves labour productivity and organisational performance (Lincoln and Kalleberg 2003; Richardson and Nejad 1986; Staw 1980).

There is, however, a dearth of research on the organisational consequences of employee turnover (Glebbeek and Bax 2004; Mobley 1982; Staw 1980; Williams 1999 in Glebbeek and Bax 2004). The few studies that do exist have treated the topic of employee turnover and organisational performance as a side issue (Glebeek and Bax 2004).

Few studies have investigated the issue of share-ownership and employee turnover (Addison and Belfield 2001; Buchko 1992; Fernie and Metcalf 1995; Long 1980; Rhodes and Steers 1981; Wilson et al. 1990) and virtually none have looked at the question of share-ownership, employee turnover and performance. Fundamentally, almost none of them have tested for the 'golden handcuff' effect of owning shares, most of the studies assume that lower levels of employee turnover are brought about by feelings of affective rather than continuance commitment towards the workplace (Addison and Belfield 2001; Buchko 1992; Fernie and Metcalf 1995; Long 1980; Rhodes and Steers 1981). The few studies that have investigated the ESO and employee turnover relationship generally report a strong and negative correlation between the presence of share-ownership schemes and employee turnover (Buchko 1992; Long 1980; Rhodes and Steers 1981; Wilson et al. 1990). Others provide partial support by suggesting that only certain types of share-ownership schemes reduce employee turnover (Addison and Belfield 2001; Fernie and Metcalf 1995). The details of these studies are provided in Appendix 3.

In a before and after analysis, Buchko (1992) found that share-ownership has a negative relationship to turnover intention. Further support was provided by Long (1980) in a case study of three medium-sized share-ownership firms. He found that employee turnover declined by 30% in the trucking firm and fell from 3.9 to 1.7% in the knitting mill and the decline took place entirely amongst the share-holders. Only the furniture firm reported unchanged levels of employee turnover. On comparing a worker-owned and a conventional firm, Rhodes and Steers (1981) found that the

voluntary turnover rate for the production employees at the conventional site was 14.6% relative to 1% for the worker-owners in the co-operative. Support was also provided by Wilson et al. (1990), who conducted a comparative analysis of 52 share-ownership and non-share-ownership firms in the engineering industry over a period of 5 years. They found that share-ownership schemes have a significant and negative impact upon quit-rates. Consequently, voluntary turnover was 2-2.5% lower in firms that have established share-ownership schemes. Some other studies provided mixed support. Using the cross-section WIRS90 dataset, Fernie and Metcalf (1995) found that only executive share-ownership schemes are associated with reduced employee turnover and Save As You Earn (SAYE) schemes are associated with higher levels of employee turnover. Using the WERS98 dataset, Addison and Belfield (2001) provided contradictory evidence by suggesting that SAYE schemes are associated with reduced quit-rates, whereas executive ESO schemes are associated with increased quit-rates.

This yields the hypothesis that **the presence of share-ownership schemes is strongly and negatively correlated with employee turnover (*Hypothesis 28*).**

3.7 Share-ownership and employee turnover: Methodological issues

3.7.1 Case study versus survey analysis

Studies adopting a case study approach tend to support the view that share-ownership schemes are associated with reduced employee turnover (Buchko 1992; Long 1980; Rhodes and Steers 1981). In comparison, studies using a survey analysis show greater variations in their results, ranging from strong (Wilson et al. 1990) to partial support for the beneficial effects of share-ownership schemes on employee turnover (Addison and Belfield 2001; Fernie and Metcalf 1995;).

Case studies confined to single firms (Buchko 1992; Rhodes and Steers 1988) or a survey analysis confined to a single industry (Wilson et al. 1990) show greater consistency of results compared to the case studies which look at more than one firm (Long 1980) or survey analyses based upon several industries (Addison and Belfield 2001; Fernie and Metcalf 1995). Buchko (1992) focuses on the study of a media and

communications firm, Rhodes and Steers (1981) study a fully employee-owned co-operative firm in the plywood industry and Wilson et al. (1990) confine their survey analysis to engineering firms. They all find that share-ownership schemes have a strong association with reduced employee turnover. However, these studies could suffer from a selection bias due to the small sample size.

Studies that rely on more than one industry or large sample sizes report mixed results. For example, Long (1980) finds that employee turnover improves in case of the furniture firm and trucking firm but remains unchanged in the knitting mill. Similarly, Addison and Belfield (2001) and Fernie and Metcalf (1995) find mixed evidence using a broad and representative data-sets i.e. 1990 Workplace Industrial Relations Survey and the WERS98.

3.7.2 Cross-sectional versus longitudinal analysis

The existing studies are characterised by considerable heterogeneity with regard to the methodologies used. None of these studies with different methodologies provide similar results. Some studies investigate the levels of employee turnover before and after setting up the share-ownership schemes (Long 1980; Buchko 1992) whereas others compare the levels of employee turnover for share-ownership companies with their non-share-ownership counterparts (Addison and Belfield 2001; Fernie and Metcalf 1995; Rhodes and Steers 1981). Yet others introduce a longitudinal component in a comparative analysis by using panel data (Wilson et al. 1990).

Moreover, studies using identical methodologies often generate conflicting results (Addison and Belfield 2001; Fernie and Metcalf 1995). Using identical methodological constructs and cross-sectional analyses, Fernie and Metcalf (1995) and Addison and Belfield (2001) found exactly the opposite results. The differences in the results could be attributed to the differences in the data-sets used (Addison and Belfield 2001; Fernie and Metcalf 1995). Similarly, Long (1980) found mixed results in his longitudinal analysis of three share-ownership firms. One of the firms showed no changes in employee turnover. This firm differed from the others in a number of ways. It was situated in an economically deprived area in comparison to the others which were situation in more prosperous localities. Furthermore, it also had the lowest

levels of employee share-ownership coverage. Hence, the differences in the results could be attributed to contextual issues (Long 1980).

3.7.4 Measurement of employee turnover

The consistency in the results could be attributed to the observation that there is relatively little variation in the measures of employee turnover adopted in the studies. The majority of studies use quit rate as a measure of employee turnover (Addison and Belfield 2001; Fernie and Metcalf 1995) rather than turnover intention. However, there are instances whereby studies have reported conflicting results despite using similar measures of employee turnover (Addison and Belfield 2001; Fernie and Metcalf 1995).

3.8 Share-ownership and employee turnover: Share-ownership characteristics

3.8.1 Types of Employee Share-Ownership schemes

The lack of differentiation between different types of ESO schemes and reliance on a generic definition of ESO could account for the consistency of the evidence (Buchko 1992; Long 1980; Rhodes and Steers 1981; Wilson et al. 1990;). Studies that test for the effects of specific share-ownership schemes often generated mixed results (Addison and Belfield 2001; Fernie and Metcalf 1995).

3.8.2 Share-ownership coverage and employee turnover

It has been hypothesised that share-ownership firms with all-employee-ownership will have lower levels of employee turnover, on average (Wilson et al. 1990). Most of the share-ownership companies that reported reduced employee turnover were fully employee-owned (Rhodes and Steers 1981; Wilson et al. 1990) or at least had majority employee-ownership (Buchko 1992; Long 1980). Companies that had partial employee-ownership reported no change in the levels of employee turnover. For example, Long (1980) found improved levels of employee turnover in the firms which were either fully employee-owned or had 70% of employees owning all of the company shares. In comparison, he found unchanged levels of employee turnover in

the share-ownership firm where only partial employee-ownership existed. Furthermore, Buchko (1992) found reduced levels of employee turnover in an 81% employee-owned firm. Similarly lower turnover rates were observed in fully-employee-owned firms (Rhodes and Steers 1981; Wilson et al. 1990). The studies were primarily restricted to share-ownership establishments where a majority of the employees actually owned shares. Hence, it is difficult to assess whether similar levels of turnover would be observed in share-ownership establishments which have majority-eligibility but not necessarily majority-participation. Furthermore, it is debateable whether it is the presence of share-ownership schemes (irrespective of coverage) or it is the actual ownership of shares by majority of the employees which makes a difference to the levels of employee turnover. Based upon Hypotheses 13 and 23 it would be logical to expect that coverage in terms of majority-eligibility and majority-participation in the share-ownership schemes would make a difference to the performance and attitudinal outcomes in share-ownership establishments. This argument could be extended to include behavioural outcomes such as employee turnover levels.

Using the 'golden handcuffs' argument it could be expected that schemes with majority-participation are likely to have a stronger impact upon employee turnover, in comparison to schemes where a majority of the employees are merely eligible. When employees actually own shares, they have a financial stake in the establishment. In comparison, when a majority of the employees are eligible, they do not have any financial stake and merely have the option of owning shares. Hence, there is a higher financial cost associated with the decision to quit when employees own shares in comparison to a situation where the employees are merely eligible for share-ownership. The awareness of the high costs associated with leaving the firm will result in stronger feelings of continuance commitment and consequently lower levels of employee turnover in share-ownership establishments with majority-participation as opposed to those with majority-eligibility (Meyer and Allen 1997). Therefore, it could be hypothesised that **when a majority of employees participate in share-ownership schemes, levels of employee turnover are lower than in cases where the majority of employees are eligible for share-ownership (*Hypothesis 29*)**

Furthermore, when a majority of the employees actually participate in the schemes, the 'golden handcuff' effect will cover a large proportion of employee-owners and is likely to be stronger relative to share-ownership establishments where the schemes may exist irrespective of coverage. Hence, it could be argued that **when a majority of employees participate in share-ownership schemes, the levels of employee turnover are lower than in cases where share-ownership schemes are present irrespective of coverage (*Hypothesis 30*)**

3.8.3 Financial value of share-ownership and employee turnover

It can be postulated that the greater the financial worth of the schemes, the stronger the likelihood that employees will remain in the firm. However, one cannot dismiss the possibility that very high financial rewards associated with ESO schemes may actually accelerate the propensity to quit after the employees make a substantial windfall gain (Buchko 1992; Culpepper et al. 2004). On some occasions, the high financial worth of schemes may fail to have any impact, particularly if the employees have to wait for several years or until retirement in order to reap the financial rewards Buchko 1992). On testing for the impact of the financial worth of the share-ownership schemes upon employee turnover, Buchko (1992) found a weak relationship. Instead, Buchko (1992) has argued that the perceived influence resulting from the share-ownership programme rather than the financial worth of the scheme influences the employee turnover behaviour. The importance of the financial worth of the scheme on the share-ownership and employee turnover relationship is implicitly tested in *Hypotheses 29* and *30* based on the finding that majority-participation in the ESO schemes is a reflection of the financial attractiveness of the scheme (Dewe et al. 1988; Hyman et al. 1989 and 1989b; Keef 1988). Regardless of the factors that might mediate the extent to which ESO schemes impact upon employee turnover, the literature on share-ownership and employee turnover suggests that the ESO schemes enhance financial performance and labour productivity through lower levels of employee turnover. The prospect of increased income through employee share-ownership, or an improvement in perceived income to effort ratio is likely to reduce voluntary turnover (Richardson and Nejad 1986). Reduced employee turnover in turn reduces replacement cost, hiring and training costs thereby reducing the unit labour costs and increasing the profitability of training expenditures. This increased

profitability in training expenditures would in turn encourage greater expenditure in training and greater investment in firm-specific human capital. Thus, lower levels of employee turnover often encourage greater firm-specific capital investment which contributes towards greater labour productivity and subsequently higher financial performance (Lincoln and Kalleberg 2003; Richardson and Nejad 1986; Staw 1980). As a result a further, indirect, increase in output per head and reduction in unit labour costs would be experienced (Richardson and Nejad 1986: 235). Lower replacement costs and improved labour productivity would in turn contribute to improved financial performance outcomes. However, financial performance is influenced by factors internal and external to the establishment whereas labour productivity would be affected primarily by factors within the establishment. Hence, employee turnover is likely to have a more immediate effect upon labour productivity in comparison to financial performance. Hence, it would be expected that lower levels of turnover would have a stronger association with labour productivity rather than financial performance. Consequently, **share-ownership establishments are more likely to influence labour productivity rather than financial performance through lower levels of employee turnover (*Hypothesis 31*)**

3.9 Concluding remarks

The inconclusive evidence with regard to share-ownership and affective commitment could be attributed to factors like, the occupational distribution of the scheme, coverage of these schemes and the existence of participation in decision-making. Though there is greater consensus regarding the beneficial effect of ESO schemes on employee turnover, there is no evidence investigating whether these schemes enhance performance through lower employee turnover. Furthermore, a predominance of case study analysis in the literature on share-ownership, affective commitment and employee turnover, makes it difficult to arrive at any generalisations.

The gaps in the literature on share-ownership and performance and the routes that link the two inform the design of the overall research methodology, discussed in Chapter 5. Furthermore, the hypotheses that emerge in Chapters 2 ad 3 are tested in Chapters 6 and 7. Finally, Chapter 4 addresses the lack of theory in the share-ownership and performance literature by building an appropriate theoretical model.

Chapter 4

Theoretical Issues

4.1 Introduction

This chapter develops a theoretical model explaining the process through which share-ownership schemes impact upon performance. In so doing, it seeks to address the perceived lack of theory in the literature on share-ownership and performance (Guest 1997). Fundamentally, the conceptual framework guides the development of setting up of the statistical models discussed in Chapter 5 and in the interpretation of the results that are generated by testing these models.

The theoretical perspective adopted in this thesis emerges from a critical evaluation of approaches and models about incentive systems, often built on specific disciplinary perspectives such as economics, psychology and Human Resource Management (HRM).

The need for a theoretical model explaining the link between share-ownership and performance is established at the very beginning of this chapter. This is followed by a critical review of the key theoretical approaches on incentive systems which lay the foundations for the development of a theoretical model. The conclusion establishes the links between this theoretical model and the research methodology.

4.2 Lack of theory in the share-ownership literature

One of the most notable features of the literature on share-ownership and performance is the distinct lack of a theoretical framework underpinning empirical investigation.

A considerable number of the studies are atheoretical (Ackers et al. 1992; Addison and Belfield 2000 and 2001; Cable and Wilson 1990; Davidson and Worrell 1994; French 1987; Goldstein 1976; Iqbal and Hamid 2000; Jochim 1979; Jones and Kato 1993; Kunkel and Lau 1995; Marsh and McAllister 2001; Marchington et al. 1994; Maudlin 1999; Nichols and Davidson 1991; Oliver 1984; Park and Song 1995;

Quarrey et al. 1986; Rosen and Quarrey 1987; Rosen 1990; Russell et al. 1979; Sockell 1985; Trewhitt 2000; Wilkinson et al. 1994). These studies either investigate the general view that share-ownership schemes contribute towards higher performance and commitment, or test the gaps identified in the previous empirical literature. At best, some studies demonstrate the use of a theoretical rationale based upon economic or HRM theories for hypothesising positive associations between share-ownership and performance (Ben-ner and Jones 1992; Blasi et al. 1994 and 1996; Blanchflower and Oswald 1987; Buchko 1992; Conte and Svejnar 1988; Fitzroy and Kraft 1986; Florkowski 1987; Gamble 1998; Keef 1998; Kruse 1992; McNabb and Whitfield 1998; Pendleton 2001; Pugh et al. 2000; Renaud et al. 2004; Richardson and Nejad 1986; Sesil et al. 2002; Taylor and Pierce 1999).

Even the assumption that ESO schemes impact upon performance through enhanced commitment levels was a view propagated by the advocates of share-ownership rather than originating from a strong theoretical framework. Only a few studies explicitly build a theoretical model that operationalises the links between share-ownership, performance and commitment (Klein 1987; Pierce et al. 1991; Long 1978a; Rhodes and Steers 1981). Virtually none of the studies focus on the link between ESO schemes, employee turnover and organisational performance. Instead, the limited investigation on share-ownership and employee turnover is predominantly based on the assumption that employee turnover is one of the many behavioural outcomes associated with higher commitment fostered by share-ownership (Addison and Belfield 2001; Buchko 1992; Fernie and Metcalf 1995; Long 1980; Rhodes and Steers 1981).

There is great variation amongst the studies that have a theoretical rationale. Some rely primarily on economic theories such as the principal/agent theory (Blasi et al. 1996; Blanchflower and Oswald 1987; Conte and Svejnar 1988; Gamble 1998; Gamble et al. 2002; McNabb and Whitfield 1998; Pendleton 2001; Pugh et al. 2000; Pendleton et al. 1997; Renaud et al. 2004; Sesil et al. 2002). Others use socio-psychological theories to provide insights into the mechanism through which share-ownership impacts upon performance (Long 1978a; Rhodes and Steers 1981; Conte 1982; Klein 1987; Pierce et al. 1991; Keef 1998; Ben-ner and Jones 1992; Buchko 1992). Still others adopt HRM theories or models, such as the self-selection argument

and the 'golden handcuff' theory (Blair and Kruse 1999; Conte and Kruse 1991; Richardson and Nejad 1986; Wilson et al. 1990).

4.3 Economic models

The economic perspective primarily focuses on predicting the nature of the share-ownership and performance relationship (Blanchflower and Oswald 1987; Cable and Fitzroy 1980a and 1980b; Eisenhardt 1989; Estrin and Wilson 1986 in Nejad 1986; Jensen and Meckling 1976; Meade 1986; Weitzman 1984; Walking and Long 1984).

Three main economic theories are used for explaining the share-ownership and performance relationship i.e. the wage flexibility model, the principal/agent theory and the incentive contract theory. A majority of the studies draw upon principal/agent theory (Blasi et al. 1996; Conte and Svejnar 1988; Gamble 1998; Gamble et al. 2002; McNabb and Pendleton 2001; Renaud et al. 2004; Pendleton et al. 1997; Pugh et al. 2000; Sesil et al. 2002; Whitfield 1998), and relatively few rely on the incentive contract theory (Pendleton 2001; Sesil et al. 2002) or the wage flexibility argument (Blanchflower and Oswald 1987).

4.3.1 Wage flexibility model

The wage flexibility argument suggests that, by linking a certain proportion of employee wages to the profits of the company, economic shocks will be absorbed by wage fluctuations rather than through changes in employment levels (Blair and Kruse 1999; Weitzman 1984 in Richardson and Nejad 1986;). This new-found stability in the employment levels facilitates the development of a long-term relationship between the employers and the employees. The long-term employment relationship would encourage firm-specific investments, resulting in a dedicated and highly trained workforce (Fitzroy and Kraft 1986). This, in turn, would lead to improved performance outcomes.

Though theoretically plausible, the practical application of the theory may be limited. The variable component in the pay will have to be substantial so that the wages can

adequately absorb economic shocks and maintain employment stability. Furthermore, it is doubtful whether the employees will be willing to substitute a substantial proportion of their fixed pay for variable pay in terms of shares. In fact, the Wall Street Journal (1994) stressed that ESO schemes should not be used to replace any part of an employee market wage. It was reported that Wal-Mart had relied on stock incentives to increase the income of low-paid employees and to give these employees a feeling of ownership. This strategy worked well while the stock price was increasing, but led to disenchantment and an unhappy workforce when the stock prices began to decline (Kunkel and Lau 1995:10).

This uncertainty associated with share-ownership could make employees sceptical about increasing the variable component of their remuneration package. Generally, establishments with ESO schemes have higher value-added compensation per employee than those without (Blair and Kruse 1999; Renaud et al. 2004). This observation suggests that ESO schemes are offered in addition to the fixed-wage rather than as a partial substitute for it. Hence, the introduction of a share-ownership scheme may not reduce the burden of fixed-wage costs on the employer. The main exception to this rule was the information technology sector (IT sector), where employees preferred to receive a considerable proportion of their pay in terms of shares. One reason for this could be that the share prices in the IT sector had shown phenomenal growth during the dot-com boom. However, with the crash in the share prices after the dot-com explosion in March 2000, the demand for share-based remuneration in the IT sector has understandably declined.

Alternatively, in companies undergoing corporate restructuring, employees may be willing to receive shares in their company in exchange for wage and benefit cuts (Blair and Kruse 1999). Therefore, the wage flexibility theory would be mainly applicable to Employee Share-Ownership (ESO) establishments in industries with an escalating stock price or establishments undergoing corporate restructuring. In addition, the wage flexibility model has limited applicability in certain countries. For example, it has little relevance in the United Kingdom, where it is not common to use financial participation schemes for introducing wage cuts (Richardson and Nejad 1986). Therefore, the wage flexibility model would be of limited use in developing a general theory about share-ownership and performance.

4.3.2 Incentive contract theory

Some studies argue that share-ownership schemes reduce monitoring costs and thereby improve organisational performance (Blasi et al. 1994 and 1996; Bradley et al. 1990; Conte and Svejnar 1990; Sesil et al. 2002). According to Alchian and Demsetz (1972), the process of production involves the activity of monitoring and guiding employee performance so as to optimally utilise labour and contribute to improved performance outcomes. However, in the case of complex production processes, it is difficult to measure and monitor the performance of each employee. In these circumstances, employees may be in a better position than shareholders to monitor the quality of each other's contributions. Therefore, giving employees incentives to self- and peer-monitor through group incentive plans contingent upon performance may be a cost-effective substitute for formal monitoring (ibid.: 276). Sesil et al. (2002) extend this argument to broad-based share-ownership schemes. They argue that, if share-ownership schemes are distributed amongst the rank and file employees, there would be a collective interest in better firm performance. Therefore, the employees would monitor their own performance as well as the performance of the peers so as to ensure that the performance benefits can be reaped.

Critics point out that broad-based share-ownership could lead to a dilution of the incentives (Richardson and Nejad 1986; Sesil et al. 2002). As the number of employees increases, there is a less apparent connection between one's efforts, the share price, profitability or other measures of performance (Kruse 1993; Renaud et al. 2004; Sesil et al. 2002). This could result in shirking and opportunistic behaviour. The counter-argument lies in game theory, which suggests that the desire to free-ride can be reduced by making employees realise that, because gains are shared, every one is better off if they co-operate (Richardson and Nejad 1986; Weitzman and Kruse 1990 in Blinder 1990). Therefore, organisations should strive towards fostering an environment of co-operation and team-work. One way of achieving this might be to improve commitment. Incentive contract theory indirectly draws attention towards the potential benefits of enhancing feelings of commitment and integration so as to reap the desired benefits of share-ownership. However, it does not illustrate how ESO schemes can enhance commitment and how higher commitment improves

organisational performance. This dimension is best addressed by the motivation theories.

4.3.3 Principal/agent theory

The principal/agent theory or agency theory is based upon the assumption that there is a conflict of interest between the owners of capital (the principal) and those hired to manage it (the agents) (Jensen and Meckling 1976). Jensen and Meckling (1976), argued that outcome-based contracts align the preferences of the agents with those of the principals because the rewards for both depend upon the same actions, and therefore the conflicts of interest between the principals and agent are reduced. This principle has been widely used to explain the relationship between share-ownership and organisational performance by arguing that financial participation will align the employees interests with those of the organisation (Blasi et al. 1996; Conte and Svejnar 1988; Gamble 1998; Gamble et al. 2002; McNabb and Whitfield 1998; Pendleton 2001; Pugh et al. 2000; Pendleton et al. 1997; Renaud et al. 2004; Sesil et al. 2002). Specifically, the ownership of shares would make clearer to the workers the connection between their long-term income prospects, the company objectives and their efforts. Therefore, workers might become more profit-conscious and might reduce waste and even increase their effort levels (Richardson and Nejad 1986: 235). These changes, in turn, might be reflected in superior organisational performance.

The application of the theory to practice raises some practical issues. First, it may not be right to assume that share-ownership schemes provide rewards that are valued by the employees, particularly if share prices are falling. However, the rewards from share-ownership schemes are spread out over a number of years and on an average share prices are found to escalate over time (Richardson and Barnes 1991). Hence, on an average employee-owners are likely to gain financially in the long term unless there is a stock market crash resulting in a sustained decline in share prices. Second, even if share prices rise, there is no guarantee that employees will increase their effort. It is likely that they would be inclined to sell the shares and make a capital gain. If the returns are very high, employee may be inclined to take up early retirement and exit the firm (Culpepper et al. 2004). However, the vesting procedures ensure that the share-owners cannot sell the shares before a certain period of time and

hence curtails this sort of opportunistic behaviour. Third, even if the employees put in the desired effort, there is a strong likelihood that it may not be reflected in higher share prices since the share prices are affected by factors that are outside the control of the employees. However, if a majority of the employees own the shares the collective effort of the employees is likely to impact upon the overall performance of the organisation and yield higher performance. The benefits of broad-based share-ownership would be evident only if there is no free-rider problem. The temptation to shirk work can be curtailed only when the employees are more committed to the organisation. This brings to light the importance of commitment in the share-ownership and performance link. Consequently, attention is directed towards the motivation and HRM theories that explain the causal link between share-ownership and organisational performance through commitment.

4.4 Socio-psychological models

The socio-psychological models provide insights into the process through which share-ownership schemes impact upon performance (Ben-ner and Jones 1992; Buchko 1992; Conte 1982; Keef 1998; Klein 1987; Long 1978a; Pierce et al. 1991; Rhodes and Steers 1981). Unlike the economic theories, they are specifically designed for explaining the behaviour of share-owners. The psychological studies focus on organisational commitment in order to explain the causal link between share-ownership and performance. For the purposes of discussion, they can be broadly classified into commitment models, satisfaction models and expectancy theory.

4.4.1 Commitment models

Commitment models argue that share-ownership schemes can foster feelings of commitment which generate positive behavioural outcomes like reduced turnover and absenteeism and greater employee effort. The behavioural changes and increased effort, in turn, may improve the performance of the organisation (Conte 1982; Florkowski 1987; Long 1978a; Pierce et al. 1991; Rhodes and Steers 1981).

The basic foundations are provided by Long (1978a). Long (1978a) hypothesised that individual employee-ownership increased employee 'organisational identification',

which, in turn, would influence organisational performance. 'Organisational identification', was viewed in terms of three inter-related concepts: integration, involvement and commitment. 'Organisational integration' was defined as the degree to which an individual perceives that the attainment of organisational goals will result in the satisfaction of personal goals and needs (ibid.: 32). 'Organisational involvement' was defined as a feeling of solidarity with the organisation and a feeling of membership and belongingness. Finally, 'organisational commitment' was defined as a sense of loyalty to the organisation (ibid: 34). Both involvement and integration were expected to contribute to improved organisational commitment. Organisational commitment, on the other hand, is expected to improve performance by leading to beneficial behaviours such as lessened turnover, absenteeism and grievances and the willingness to innovate and support change (Long 1978a). The clearest link exists between share-ownership, loyalty and performance. This model makes a valuable contribution in actually providing an operational definition of commitment in terms of loyalty. However, this model fails to incorporate the effects of mediating variables in the share-ownership and performance relationship.

The postulated links between share-ownership schemes and organisational performance remain the same in Rhodes and Steers' (1981) and Conte's (1982) models. However, they differ in two respects. First, they extend the analysis to dimensions of share-ownership other than individual ownership for example, co-operatives. Second, they draw attention to the moderating variables influencing the hypothesised links between share-ownership, commitment and organisational performance.

The Rhodes and Steers' model differs from Long's, as it is designed specifically for producer co-operatives rather than individual employee share-ownership. They hypothesised that membership of a co-operative influences employee perception of pay equity and participation in decision-making. The outcome is improved 'organisational commitment', which subsequently improves individual behaviour, leading to reductions in absenteeism and tardiness (ibid.:63). Their study concluded that the higher levels of commitment found in co-operatives relative to the conventional organisations could be attributed to the unique characteristics of the co-operative form.

Conte's (1982) model was also primarily applicable to co-operatives and labour-managed firms and traced a similar path between share-ownership and organisational performance to that of Long. However, it developed both the Long and Rhodes and Steers models by being more sensitive to the moderating variables. For example, the 'reasons for worker-ownership' are expected to moderate the perceptions of worker-ownership and participatory nature of the share-ownership establishment (Conte 1982).

There is debate about the relevance of the above models to share-ownership schemes. Although share-ownership schemes and co-operatives operate on the principle of financial participation, they differ on a number of aspects. Typically, co-operatives adhere more closely to a broad-based share-ownership scheme with strong employee involvement in participation in decision-making (Pendleton 2001). Since a large number of share-ownership schemes do not adhere to this ideal, there is much debate about the applicability of the above models to share-ownership schemes, in general. Furthermore, there is no standardised definition of the commitment variable. Terms like 'commitment' and 'identification' often overlap, but can mean different things in different models. This makes generalisations difficult. However, these models draw attention to broad-based ownership and perceptions of participation in decision-making as possible factors that might contribute to the success of share-ownership firms.

The most direct and ambitious attempt to address the lack of a conceptual framework on share-ownership, commitment and performance was made by Pierce et al. (1991). Integrating the salient features of the earlier models, they developed a model specific to ESO schemes which brought out the complexity of the share-ownership construct and its hypothesised link to organisational performance. The core of the model suggests that, under certain moderating conditions, formal ownership leads to 'psychological ownership'. 'Psychological ownership', in turn, facilitates the integration of the employee-owner into the ownership experience, resulting in a number of positive social-psychological and behavioural outcomes (Pierce et al. 1991: 122).

The model adopts a contingency approach by suggesting that the predicted link between share-ownership and organisational performance would differ depending upon the type of ownership (individual versus co-operative), and the moderating variables (management commitment to share-ownership, participation mechanisms, individual financial orientations, ownership expectations and contextual factors) that exist. A distinction is made between formal ownership and psychological ownership, thereby highlighting the importance of perceptions in influencing the relationship between ownership and behavioural and organisational performance outcomes.

On the whole, the model makes certain important contributions which have relevance for building a testable conceptual framework in the future. First, it distinguishes between formal and psychological dimensions of ownership and their relative effects upon levels of commitment and behavioural outcomes. Second, it identifies the importance of financial rewards, influence and information-sharing as critical factors in determining the impact of share-ownership on commitment and behavioural outcomes. Third, it is one of the few models that make a reference to expectancy theory in an attempt to explain the process through which share-ownership schemes produce a set of social and psychological behavioural effects.

Therefore, the Pierce et al. (1991) model has strong relevance in predicting and explaining share-ownership behaviour. However, it has certain limitations. The main limitation of the model lies in the fact that it attempts to draw attention to all the possible issues that emerge in the empirical literature on share-ownership and commitment. This results in a lack of focus. Hence, there is a need for simplification. Furthermore, apart from a passing reference to expectancy theory, the model clearly lacks any strong theoretical basis. It is merely a congregation of key issues identified by empirical evidence and there is a need to develop a consistent theory that traces the causal path from share-ownership to performance. Finally, the model is mainly applicable to a specific type of employee share ownership scheme i.e. the Employee Share-Ownership Plans (ESOP), and this restricts its applicability to ESO schemes in general.

4.4.2 Klein's three models of satisfaction

While the models of commitment outline the overall linkages between share-ownership, commitment and performance, Klein's (1987) three models of satisfaction focus on explaining how various dimensions of share-ownership influence commitment. Klein's satisfaction models have been widely used as a theoretical basis for explaining the relationship between share-ownership and commitment (Ben-ner and Jones 1992; Buchko 1992; Gamble et al. 2002; Keef 1998; Long 1978a; Pierce et al. 1991). The three models of satisfaction are the 'intrinsic satisfaction' model, the 'extrinsic satisfaction' model and the 'instrumental satisfaction' model. The 'intrinsic satisfaction' model focuses on the formal ownership of shares being a key factor contributing to positive employee motivation. The 'extrinsic satisfaction' model emphasises the importance of the financial rewards associated with share-ownership schemes as being a primary factor contributing to increased satisfaction and motivating employees to work harder. The 'instrumental satisfaction' model emphasises the importance of influence through participatory rights in reinforcing the feeling of ownership associated with the share-ownership scheme. Klein's (1987) satisfaction models appear to focus primarily on employee satisfaction with the share-ownership scheme rather than on commitment. In a later study, Klein and Hall (1988) found that the factors contributing to share-ownership satisfaction also contributed to levels of organisational commitment, thereby establishing a link between the three models of satisfaction and commitment.

Klein's model can be criticised for separating the three dimensions of share-ownership, which are in fact inter-related. However, for purposes of conceptual clarity, treating the share-ownership dimensions separately is essential. Fundamentally, it also one of the few models which is relatively simple and applicable to ESO schemes in general rather than a specific type of ESO scheme. Particularly the 'extrinsic satisfaction' model has been validated by a number of studies (Buchko 1992; French 1987; Klein 1987; Klein and Hall 1988; Pendleton 2001). These distinct advantages make it very valuable for building future conceptual frameworks for explaining the share-ownership and performance relationship.

4.4.3 Expectancy theory

Expectancy theory is a general theory of the conditions that should be fulfilled for motivating an individual to perform. It suggests that for a financial participation scheme to work, three conditions should be satisfied (Campbell and Pritchard 1976; Lawler 1973;Vroom 1964). First, the reward associated with financial participation should be valued so as to motivate employees to put in the desired effort (valence). Second, the employees should perceive a clear 'line-of-sight' between their efforts, their financial reward and organisational performance (instrumentality). Third, the effort levels required to reap the reward should be attainable (expectancy).

Even though the expectancy theory is not specifically about share-ownership and performance, its applicability to the share-ownership and other HRM practices has been strongly recommended by Guest (1997). The principles of expectancy theory can be applied to ESO schemes in order to identify a set of conditions that should be fulfilled so that the ownership of shares generates the desired performance outcomes. For example, it could be argued that for ESO schemes to align employee interests with that of the organisation two conditions should be fulfilled. The employees must value the rewards offered by these schemes (valence condition) and they should perceive a clear connection between their efforts, their financial rewards and organisational performance (instrumentality condition).

However, its use as a theoretical construct for predicting share-ownership behaviour has been limited (Florkowski 1987; Pierce et al. 1991; Renaud et al. 2004). Fundamentally, expectancy theory assumes that ESO schemes enhance organisational performance by motivating employees to work harder and by establishing a clearer connection between their efforts and rewards. In so doing, it focuses entirely on the affective commitment route to explain the relationship between share-ownership and performance.

4.5 Models of Human Resource Management (HRM)

The HRM perspective consists of some generic theories about human resource practices and performance (Beer et al. 1985; Guest 1987) as well as theoretical

arguments linking share-ownership to certain behavioural outcomes such as employee turnover such as the 'golden handcuff' theory (Blair and Kruse 1999; Conte and Kruse 1991; Richardson and Nejad 1986; Wilson et al. 1990).

4.5.1 Macro models of Human Resource Management (HRM)

These macro models of HRM provide a basis for the widely-held view that human resource practices impact upon performance through commitment. Since share-ownership schemes fall under the wide category of Human Resource Management (HRM) practices, this world view is naturally applicable to share-ownership schemes. Of particular relevance are the Harvard and Guest models of HRM, both of which identified organisational commitment as a critical variable linking Human Resource (HR) practices to organisational performance.

The Harvard model (Beer et al. 1985) posits that HRM policy choices lead to desirable HR outcomes, such as commitment, competence, congruence, and cost-effectiveness. These, in turn have positive long-term consequences, such as individual and societal well-being and organisational effectiveness. The Harvard model is very generic and lacks predictive value. For example, it does not indicate how specific HR policies contribute to specific HR outcomes and their link to organisational effectiveness. Therefore, the Harvard model does not establish clear causal links between human resource practices and performance outcomes.

The above limitations were addressed by the Guest (1989). There are two versions of the Guest model. The first introduces an element of specificity to the Harvard model by clearly defining a set of HR practices which would contribute to a set of four human resource outcomes. These, in turn, would generate desired organisational outcomes. The model posits that human resource policies (such as organisational job design, recruitment and selection, appraisal training and development, reward and communication system) when applied correctly, would generate HR outcomes like strategic integration, commitment, flexibility and adaptability and quality of staff. These, in turn, would contribute to a range of organisational performance outcomes, such as high performance, high problem solving capability, successful change, low turnover, low absence, low grievance level and high cost-effectiveness (Guest 1989).

The causal linkages between specific HR practices and specific HR outcomes, behavioural outcomes, performance outcomes and organisational effectiveness are discussed in greater depth in the second version of the Guest model (Guest 1997). For example, single status policies, job security, internal promotion and individualised reward systems influence effort, motivation and commitment. Furthermore, Guest (1997) reduced the four HRM outcomes to three by eliminating 'strategic integration' in the second version of his model. According to Guest (1997), 'only when all three HRM outcomes of flexibility, commitment and high quality of staff are achieved can we expect behavioural changes and higher performance' (ibid.: 69).

Despite being very detailed, the Guest (1997) model lacks clarity in certain dimensions. For example, it was not entirely clear how strategic integration is related to the HRM practices and HRM outcomes. Hence, the models are limited in their scope for tracing the causal path between the implementation of share-ownership and its subsequent contribution to organisational performance. However, the models have relevance to the share-ownership and performance question in establishing a link between specific human resource practices and behavioural and organisational outcomes.

4.5.2 HRM arguments

The dominant school of thought suggests that share-ownership schemes influence behavioural outcomes such as employee turnover through higher affective commitment (Rhodes and Steers 1981; Long 1978; Buchko 1992; Pierce et al. 1990). Therefore, these models mainly view employee turnover as a behavioural outcome of affective commitment.

The less prevalent view is that share-ownership schemes are an effective retention tool and reduce employee turnover by making it financially lucrative for employees to remain in employment and expensive for them to quit (Blair and Kruse 1999; Richardson and Nejad 1986; Wilson et al. 1990). The promise of financial reward and the costs of leaving the firm ties the employee to the organisation resulting a long-term employee employer relationship and in a stable workforce. Hence, the share-

ownership schemes are referred to as 'golden handcuffs'. It is further argued that the lower costs and efficiency benefits associated with lower levels of employee turnover are expected to contribute towards higher organisational performance (Richardson and Nejad 1986).

Culpepper et al. (2004) challenge the 'golden handcuff' theory by suggesting that the high financial rewards associated with share-ownership schemes would make employees feel freer to leave the firm, rather than being bound to the organisation. Therefore, they argue that ESO schemes are likely to weaken feelings of continuance commitment thereby increasing attrition rate. The scenario presented by Culpepper et al. (2004) is more likely to take place if these schemes are a stand-alone initiative and employee-owners make huge windfall gains because under these conditions there is little financial incentive for continuing employment with the firm. However, this scenario is rare because the ongoing income associated with share-ownership can be sustained only if organisational membership persists. Furthermore, the vesting schedule, i.e. the manner in which the shares are allocated to employees can be manipulated in order to influence employee decision to remain. For example, firms often opt for the staggered vesting schedule whereby the proportion of shares allocated to the employees through share-ownership is directly proportional to the number of years in employment. Others opt for the cliff vesting schedule whereby employees are allocated the shares only after they have been in employment for a certain period of time. Therefore, firms often design share-ownership schemes to achieve the 'golden handcuff' effect.

There is also considerable debate as to whether lower employee turnover induced by financial rewards can raise labour productivity and have a beneficial effect on organisational performance particularly since, it is more likely that the unproductive employees will remain (Glebeek and Bax 2004; Luchak 2003). However, the self-selection argument, suggests that a performance-linked compensation system is likely to attract high-performing individuals to the firm. Therefore, the existence of an ESO scheme may attract the best talents, and result in a more productive workforce (Conte and Svejnar 1990; Richardson and Nejad 1986). Furthermore, the firm-specific investment argument, suggests that a highly stable labour force encourages the firm to make investments in firm-specific human capital and enables the development of a

highly skilled workforce. This in turn, could contribute towards helping the firm gain competitive advantage, and also improved organisational performance (Richardson and Nejad 1986).

Overall, the 'golden handcuff' theory and the firm-specific investment arguments provide a plausible explanation as to how share-ownership schemes could influence performance.

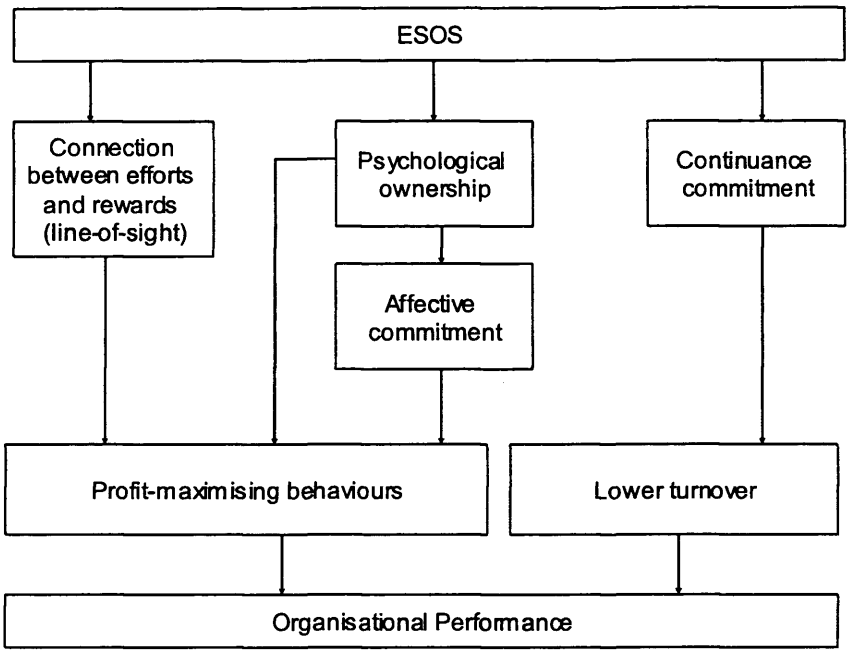
4.6 Theoretical model developed in this thesis

A conceptual framework outlining the share-ownership and performance link has been developed by integrating the elements from principal/agent theory, the incentive/contract argument, expectancy theory, Klein's satisfaction models, the commitment models, the 'golden handcuff' theory and the firm-specific capital investment argument.

The model integrates these theories because none of these theories alone sufficiently explains the causal linkages between share-ownership and performance or shed light upon the factors that influence the nature and strength of this relationship. For example, the principle/agent theory outlines the basic principle behind the share-ownership/higher performance relationship by suggesting that these schemes align employee interests with that of the organisation. However, it provides no indication as to the factors which might influence the strength of the share-ownership and performance relationship. This gap is filled by expectancy theory and Klein's satisfaction models. In addition Klein's three models of satisfaction also explain the motivational route through which ESO schemes enhance organisational performance.

The model also acknowledges a non-motivational route through which share-ownership schemes can influence performance by drawing upon the 'golden handcuff' theory and the firm-specific capital investment argument. The 'golden handcuff' theory emphasises the role of financial rewards associated with share-ownership schemes in reducing employee turnover. The firm-specific capital investment argument explains how the lower levels of employee turnover would translate into higher performance.

Figure 4.1 A model of share-ownership and performance process and effects



4.6.1 Outline of the model

Share-ownership is associated with higher organisational performance because of several reasons. The principal/agent theory argues that the presence of ESO schemes will align employee interests to that of the organisation, thereby encouraging them to put in more effort. It is argued that output based incentive schemes such as ESO schemes establish a connection between the employees' efforts, their long term income prospects and organisational performance, thereby aligning employee interests with that of the organisation (Richardson and Nejad 1986: 235). This alignment of employee interests with that of their organisation is likely to encourage profit-maximising behaviour such as greater employee effort and reduction of wastage. Furthermore, the incentive contract theory suggests that alignment of interests will also result in self- and peer–monitoring, leading to reduced monitoring costs. The increased effort combined with reduced monitoring costs will, in turn, contribute to higher financial performance and labour productivity. However, the benefits of lower

monitoring costs induced by alignment of interests can be yielded only if the free-rider problems are minimised.

One way of minimising the free-rider problem is by fostering feelings of affective commitment towards the firm. Therefore, it could be argued that another mechanism through which ESO schemes enhance performance is by fostering greater affective commitment amongst employee-owners and generating behavioural outcomes that benefit performance. Employee share-ownership schemes confer upon employees the right to own a part of the company through the physical ownership of shares and the right to participate in the financial prosperity of the organisation through the financial rewards associated with ownership. Some share-ownership schemes also give employees participatory rights, e.g. through voting rights, or at times these schemes may be accompanied by participation in decision-making. These benefits conferred upon employees through share-ownership contribute towards feelings of psychological ownership (Klein 1987). Psychological ownership, in turn, influences employees to engage in behaviours beneficial to organisational performance and it also fosters feelings of affective commitment towards the organisation. Affective commitment is associated with behavioural outcomes such as higher job performance and lower turnover which translates into higher organisational performance (Pierce et al. 1991).

Yet another route through which share-ownership may influence organisational performance is through lower levels of employee turnover induced by the financial rewards associated with the ownership of shares. The ownership of shares makes it financially lucrative for employees to remain in employment since the ongoing income associated with share-ownership can be obtained only if organisational membership continues. Hence, one of the immediate outcomes of introducing ESO schemes is likely to be lower levels of employee turnover through continuance rather than through affective commitment. There are various performance benefits associated with lower employee turnover. For example, lower employee turnover is associated with lower retention and replacement costs as well as lower recruitment costs. Furthermore, a stable workforce induced by lower employee turnover increases the profitability of training expenditure, thus increasing the output-to-cost ratio of labour. Thereby establishments are encouraged to make further investments in firm-

specific human capital. This investment in training may increase labour productivity and is likely to translate into superior organisational performance (Blair and Kruse 1999; Conte and Kruse 1991; Richardson and Nejad 1986; Wilson et al. 1990).

Finally, the strength of the relationship between share-ownership and performance is likely to be mediated by two main factors, i.e. a majority-participation in the share-ownership scheme and employee participation in decision-making. When a majority of the employees own shares and they can influence decisions that have an impact upon organisational performance the collective efforts of majority employee-owners is likely to have a stronger effect upon company performance relative to the efforts of a small number of share-owners with no participatory rights. Good communication systems, on the other hand, are important in keeping employee-owners well informed about their contribution towards the overall progress of the organisation and the achievement of organisational objectives. This knowledge would help employees to set realistic targets that would enhance their performance and hence have a positive impact upon organisational performance. Therefore, the connection between efforts and rewards would be clearer in share-ownership firms with majority ownership and participation in decision-making, thereby fulfilling the instrumentality condition outlined in the expectancy theory. It could also be argued that majority-ownership is reflective of the financial attractiveness of the scheme, thereby satisfying the valence condition stated by expectancy theory. The assumption that majority ownership is indicative of the perceived financial worth of the scheme is based on the finding that the financial attractiveness of share-ownership schemes is an important joining consideration (Dewe et al. 1988; Hyman et al. 1989 and 1989b; Keef 1988).

Furthermore, assuming that majority share-ownership is reflective of favourable perceptions of the financial worth of the scheme, it would contribute towards feelings of extrinsic satisfaction amongst the employees in majority share-ownership establishments. In addition, majority-ownership together with participation in decision-making enhances employee perceptions of influence and thereby contribute to feelings of 'instrumental satisfaction'. Using Klein's three models of satisfaction, it could be argued that majority-ownership accompanied by participation in decision-making will induce stronger feelings of psychological ownership and higher affective commitment with the firm, consequently resulting in higher job and organisational

performance. In addition, if most of the employees own shares, the 'golden-handcuff' effect of share-ownership is likely to be more widespread resulting in even lower levels of employee turnover and, consequently, higher performance.

It is worthwhile noting that the 'line-of-sight' and feelings of psychological ownership or the 'golden handcuff' effect will be stronger in case of majority-participation rather than majority-eligibility. This is because majority-eligibility reflects the opportunity for owning shares and, at best, could have short term effect upon employee perceptions of managerial intentions. In comparison, majority-participation involves the physical ownership of shares and hence brings about a change in the ownership status and the financial position of employee-owners. Therefore, the connection between the ownership of shares, individual effort and financial rewards is clearer when employees own shares, rather than when they are merely eligible for share-ownership. This difference in the 'line-of-sight' between efforts and rewards is likely to contribute to differences in individual effort and the levels of organisational performance.

4.6.2 Concluding remarks

The model developed in this thesis differs from previous models by integrating both the economic and psychological perspectives instead of focusing on one dimension of the share-ownership/performance relationship. This model, is therefore, more adequate in explaining the multi-dimensionality of the share-ownership concept. In contrast to previous models, this model comments both on the direction of causality and the factors that influence the strength of the ESO/performance link. Furthermore, the model proposes two possible routes through which share-ownership schemes can influence performance, i.e. increased affective commitment and reduced turnover. In so doing, the multidimensionality of the commitment concept in terms of affective and continuance commitment is acknowledged. This contrasts with the existing share-ownership literature that predominantly focuses on affective commitment. In addition, this model is applicable to share-ownership schemes, in general, and is not restricted to a specific type of scheme. The causal linkages outlined by this model guides the development of the statistical models described in Chapter 5.

Chapter 5

Description of the Research Methodology

5.1 Introduction

This chapter seeks to develop an appropriate research methodology for testing the key hypotheses outlined in Chapters 2 and 3. It develops the theoretical model outlined in Chapter 4 by converting it into an appropriate statistical model.

This chapter presents the case for choosing a quantitative approach to investigate the research hypotheses and proceeds to describe the data-set and statistical tools used. Then, the regression models as well as the key and contextual variables used for operationalising the hypotheses are described. The conclusion of the chapter summarises the key attributes of the research methodology adopted in this thesis. Furthermore, it establishes the link between the research methodology and the subsequent chapters that draw upon the research methodology to generate the key findings.

5.2 Choice of research methodology

The critical evaluation of the literature on share-ownership, performance, commitment and employee turnover reveals that there is a predominance of case study analysis thereby increasing the likelihood of a selectivity bias in the findings. An analysis based upon a large representative cross-section data-set will minimise this selectivity. Furthermore, a secondary data-set based upon a broad representative sample would assist in making generalisations unlike those studies that rely on case studies or on survey analyses of small sample sizes.

5.3 Choice of data-set

The perceived need for an analysis based upon a large nationally-representative sample of establishments (preferably in the UK) makes the 1998 Workplace

Employee Relations Survey (WERS98) cross-section data-set the natural choice. The WERS98 data-set possesses a host of attributes which make it suitable for investigating the impact of share-ownership on performance and investigating the route through which the two are linked.

First, the WERS98 data-set has a distinct advantage over other data-sets by virtue of its high degree of representativeness owing to its broad coverage. The WERS98 cross-section survey was conducted by the Social and Community Planning Research between October 1997 and June 1998. This data-set covers all workplaces in Britain employing 10 to greater than 10,0000 employees in an establishment (excluding agriculture, fishing, and deep coal mining) (BJIR 2000: 1). The cross-section survey captures 28,230 individual responses from 2,192 workplaces in Britain. This broad representativeness of the data-set allows for generating results that can be broadly generalisable.

Second, the cross-section data-set is also representative of the points of views of the key stakeholders in the workplaces, i.e. management and employees. The management perspective is incorporated through a face to face structured interview with the most senior manager responsible for employee relations in each workplace. The interview is augmented by a self-completed Employee Profile data sheet. The employee perspective is captured through the information gathered by a self-completion questionnaire given to 25 randomly selected employees at each establishment (BJIR 2000). As a result, matched information is available at the establishment level and at the individual level. The management questionnaire is based upon establishment level data and the employee questionnaire is based upon the individual responses.

Third, the scope of the data-set also extends to the wide range of issues covered by it. The coverage of a wide range of issues assists in testing for the moderating influences on the share-ownership, organisational performance, affective commitment and employee turnover relationships. The topics of relevance covered in the management questionnaire include the management of personnel function, consultation and

communication, employee representation, payments systems and pay determination, collective disputes and procedures, grievance and disciplinary procedures and workplace performance. The employee questionnaire covers topics relevant to the share-ownership and affective commitment issue; for example, job influence and job satisfaction, employee perceptions of management's personnel practice and representation at work and the nature of the employee's job (BJIR 2000). The factual information contained in the Employee Profile data sheet with respect to the employees including age, sex, marital status, ethnic background, educational qualifications and salary are used to shed clarity on the relationship between share-ownership schemes and affective commitment. Information on rates of voluntary turnover, wage rates and the workforce composition are provided by the Employee Profile data sheet and is useful for the analysis of the share-ownership/employee turnover relationship. The information provided helps to cover a wide variety of issues that might arise while testing the share-ownership and performance relationship.

Fourth, the high management response rate at over 80% compares very favourably with most US studies which struggle with response rates at around or below 25% (Becker and Huselid 1998; Ramsay et al. 2000). The high response rate suggests that the data-set is relatively free from selectivity bias, unlike a lot of the previous studies which are restricted to the study of a particular firm or a few firms in the industry.

Fifth, the WERS98 data-set has been widely used by academics for conducting original research investigating important human resources issues. As a result, the WERS98 data-set has been heavily scrutinised in terms of its strengths and weaknesses. This lends an element of transparency to it and helps to minimise biases in the results due to hidden errors.

Sixth, the tools (structured interviews and well-defined multiple choice questionnaires) used for collecting information, lend an element of objectivity to the study and facilitate the creation of well-defined variables for regression analysis. In addition, the standardised definitions facilitate comparisons across firms.

Furthermore, the study is conducted by a third party, so that the bias of the researcher is minimised.

Seventh, the key issues identified in the literature on the effects of Employee Share-Ownership (ESO) schemes on organisational performance, commitment and employee turnover are well represented by the WERS98 data-set. Hence it is possible to investigate the key issues relevant to the share-ownership and performance debate in this thesis. Furthermore, the detailed information available on HR practices and HR outcomes in the data-set assist in accurately measuring the concepts central to this thesis. For example, ESO schemes, affective commitment, employee turnover, financial performance and labour productivity.

Finally, the study provides a whole new perspective by studying the UK context. This contributes to a better balance between evidence from the US and the UK.

5.4 Description of statistical packages

The process of transformation from raw data in the data-set to the actual results has been achieved with the help of a number of statistical packages and binomial regression models. The SPSS and Limdep (DOS version) and Limdep 7 for Windows and Stata Transfer are the statistical packages used for storing data and testing the binomial regression questions. The details of the statistical packages are provided in Appendix 4.

5.5 Estimating framework: Share-ownership and organisational performance

A binomial probit equation is used to test the share-ownership and organisational performance relationship. The binomial probit model is considered appropriate since the dependent variable i.e. organisational performance is a dichotomous variable taking values '1' or '0'. After McNabb and Whitfield (1998), the sample is restricted to trading establishments. Trading establishments include those establishments that

produce goods and services for sale in the open market and do not sell the majority of their product or service to the other parts of their organisation. Trading establishments exclude workplaces in public services, education and health. WERS98 data are generated by using stratified sampling method in which large establishments are over-sampled compared to small establishments (Cully et al. 1999; McNabb and Whitfield 2000; Millward et al. 2000). This issue can be addressed by using weights. Hence all data are weighted for sample inclusion using establishment weights.

5.5.1 Base Regression equation

Hypothesis 1 suggests that ESO schemes have a positive and significant association with organisational performance. Furthermore, Hypothesis 2 suggests that ESO schemes have a stronger association with labour productivity as compared to financial performance. Hence, Hypotheses 1 and 2 are tested by estimating the following regression models:

Better than average financial performance = $\alpha + \beta_1$ (the presence of share-ownership) + β_2 (Establishment Controls) + β_3 (Industry Controls).....(1)

Better than average labour productivity = $\alpha + \beta_1$ (the presence of share-ownership) + β_2 (Establishment Controls) + β_3 (Industry Controls).....(2)

The two sets of basic equations that are estimated differ in terms of their dependent variables. The first measures organisational performance in terms of financial performance and the second uses labour productivity as a measure of organisational performance. Both the financial performance and labour productivity variables are dichotomous variables with '1' denoting 'above average' and 'a lot above average' performance and '0' being the omitted category variable. The performance measures have been collapsed into two categories because certain categories such as 'below average' and 'a lot below average' are too small for effectively running the binomial probit model.

The key independent variable is the presence of share-ownership and refers to the existence of an ESO scheme in an establishment. It takes the value '1' to indicate that the establishment has some form of share-ownership scheme; otherwise it takes value zero.

5.5.2 Other financial participation mechanisms

Hypothesis 9 states that the positive and significant association between the presence of share-ownership schemes and performance will remain unchanged even when other financial participation schemes are present. Furthermore, a stronger association between cash-based profit-sharing schemes relative to share-ownership schemes and performance is hypothesised in Hypothesis 10.

In order to test Hypotheses 9 and 10, additional dummy variables for financial participation schemes are added to the base regression equations described in Section 5.5.1. These dummy variables include financial participation schemes like Deferred Profit-Sharing schemes (Pshare) and Profit-Related Pay (PRP). These variables capture differing degrees of financial participation with respect to immediacy of financial rewards. Profit-Related Pay is associated with immediate financial rewards. Deferred Profit-sharing refers to cash-based rewards that are deferred to a future date and Employee Share-Ownership schemes refer to deferred rewards which are paid in shares, thereby having an element of risk attached to them along with the promise of ownership. Hypotheses 9 and 10 are tested using the following regression equations:

Better than average financial performance / Better than average labour productivity = $\alpha + \beta_1$ (the presence of share-ownership) + β_2 (Deferred Profit-Sharing) + β_3 (Profit-Related Pay) + β_4 (Establishment Controls) + β_5 (Industry Controls) .....(3)

It is also hypothesised that the presence of ESO schemes in a workplace combined with other financial participation schemes will have a stronger effect upon

performance outcomes as compared to the presence of ESO schemes alone (Hypothesis 11).

The performance benefits of having both ESO schemes and Profit-Related Pay in a workplace is captured by including an interaction term based on the presence of share-ownership and Profit-Related Pay to the base regression equation which includes Profit-Related Pay and Deferred Profit-Sharing schemes as controls (Equation 3). Similarly, the interaction term based on share-ownership and Deferred Profit-Sharing schemes are added to equation (3) so as to determine the performance effects of having both share-ownership schemes and Deferred Profit-Sharing schemes in a workplace. Hence, the following model is estimated for testing Hypothesis 11:

Better than average financial performance / Better than average labour productivity = $\alpha + \beta_1$ (the presence of share-ownership) + β_2 (Deferred Profit-Sharing) + β_3 (Profit-Related Pay) + β_4 (the presence of share-ownership* Profit-Related Pay) + β_5 (the presence of share-ownership* Deferred Profit-Sharing) + β_6 (Establishment Controls) + β_7 (Industry Controls) .....(4)

5.5.3 Share-ownership coverage

According to Hypothesis 12 and 13 performance outcomes will be higher if a majority of the employees own shares, rather than if a majority of the employees are merely eligible for share-ownership or ESO schemes or belong to workplaces where share-ownership schemes are present irrespective of coverage.

In order to test Hypotheses 12 and 13, the following alterations are made to the base regression equations. First, the the presence of share-ownership variable is replaced by a variable measuring whether a majority of the employees are eligible and then it is replaced by a variable measuring whether a majority of the employees participate in the share-ownership scheme. The majority-eligibility and majority-participation variables measure a situation whereby a majority i.e. 60-100% of the non-managerial employees are either eligible for share-ownership schemes or actually participate in

the scheme respectively. The following regressions equations are estimated for testing Hypotheses 12 and 13:

Better than average financial performance / Better than average labour productivity = $\alpha + \beta_1$ (majority-eligibility/majority-participation) + β_2 (Establishment Controls) + β_3 (Industry Controls).....(5)

5.5.4 Manufacturing versus non-manufacturing sectors

The interaction effects of share-ownership schemes with the manufacturing and non-manufacturing sector and their link to performance measures are determined along the lines proposed in Hypothesis 3. Hypothesis 3 suggests that the effect of ESO schemes on performance is higher in the non-manufacturing sector relative to the manufacturing sector. Hypothesis 3 is tested by including an interaction term based on the presence of share-ownership and the manufacturing sector to the base regression equations. The interaction term is denoted by the presence of share-ownership*manufacturing sector.

Furthermore, Hypothesis 16 postulates that the positive association with performance outcomes is even higher for share-ownership establishments in the non-manufacturing sector where a majority of the employees own shares compared to when a majority employees are merely eligible. Hence Hypothesis 16 is tested by including interaction terms based upon the manufacturing sector and broader measures of share-ownership coverage, such as a majority-eligibility and majority-participation. Hypotheses 3 and 16 are tested by estimating the following equations:

Better than average financial performance / Better than average labour productivity = $\alpha + \beta_1$ (the presence of share-ownership/majority-eligibility/majority-participation) + β_2 (the presence of share-ownership/majority-eligibility/majority-participation*manufacturing sector) + β_3 (Establishment Controls) + β_4 (Industry Controls).....(6)

5.5.5 Participation mechanisms

Participation measures are added to the base equations and the interaction between share-ownership and participation schemes is used to examine the Hypotheses 5, 6, 7 and 8.

Hypothesis 5 suggests the performance benefits associated with ESO schemes are evident even when other participation in decision-making schemes exist. Hypothesis 6 postulates that ESO schemes will have the stronger effect on financial performance, whereas participation in decision-making schemes will have a stronger effect upon labour productivity. Furthermore, Hypothesis 7 emphasises the heterogeneity of the employee participation schemes whereby different types of participation in decision-making schemes will have different effects on performance outcomes. Three types of employee involvement have been identified based upon the Marchington et al. (1992) framework used in the study by McNabb and Whitfield (1998), i.e. downward communication, upward problem-solving and representative participation (see Appendix 5 for details). The relative effects of share-ownership schemes and different types of employee participation schemes are tested by adding the three types of employee participation schemes to the base regression equations. Hence, the following equation is estimated for testing Hypotheses 5, 6 and 7:

Better than average financial performance / Better than average labour productivity = $\alpha + \beta_1$ (the presence of share-ownership) + β_2 (upward problem-solving) + β_3 (downward communications) + β_4 (representative participation) β_5 (Establishment Controls) + β_6 (Industry Controls).....(7)

Next, the performance benefits of having ESO schemes in conjunction with the three types of participation in decision-making are estimated in order to test Hypothesis 8 which suggests that share-ownership combined with employee participation schemes will result in higher performance outcomes compared to share ownership alone. This is achieved by including three new interaction terms based on the presence of share-ownership and upward problem-solving, the presence of share-ownership and

downward communication and share-ownership and representative are included in Equation 7.

Similar interaction terms based on broader measures of share-ownership coverage such as majority-eligibility and majority-participation are used for testing Hypothesis 15. This hypothesis states that the performance outcomes are higher for share-ownership establishments that have majority-ownership and formal participation in decision-making schemes relative to those share-ownership establishments that have majority-eligibility or the presence of share-ownership alongside formal participation in decision-making schemes. The following regression equations are estimated for testing Hypotheses 8 and 15.

Better than average financial performance / Better than average labour productivity = $\alpha + \beta_1$ (the presence of share-ownership/majority-eligibility/majority-participation)+ β_2 (Upward problem-solving) + β_3 (downward communications) + β_4 (representative participation) + β_5 (the presence of share-ownership/majority-eligibility/majority-participation*upward problem-solving) + β_6 (the presence of share-ownership/majority-eligibility/majority-participation*downward communications) + β_7 (the presence of share-ownership/majority-eligibility/majority-participation*representative participation) + β_8 (Establishment Controls) + β_9 (Industry Controls).....(8)

5.5.6 Unionised versus non-unionised-share-ownership establishments

Interaction terms based on the presence of share-ownership and the existence of a recognised union are added to the base regression equations so as to test Hypothesis 4 which suggests that unionised-share-ownership establishments have higher performance outcomes compared to the non-unionised-share-ownership establishments. The interaction term is denoted by the presence of share-ownership*recognised union. Similar interaction effects are also assessed for broader measures of share-ownership coverage such as majority-eligibility ad majority-participation in order to test Hypothesis 14. Hypothesis 14 suggests that performance outcomes are even higher for unionised establishments that have majority-

participation rather than those that have majority-eligibility or where share-ownership schemes merely exist. Hence, the following equations are estimated:

Better than average financial performance / Better than average labour productivity = $\alpha + \beta_1$ (the presence of share-ownership/majority-eligibility/majority-participation) + β_2 (the presence of share-ownership/majority-eligibility/majority-participation*recognised union) + β_3 (Establishment Controls) + β_4 (Industry Controls).....(9)

5.6 Key variables: Share-ownership and organisational performance

The key independent variable in the share-ownership and performance relationship is the presence of share-ownership and the key dependent variable is organisational performance.

5.6.1 Outcome variable: Organisational performance

As mentioned in Hypothesis 2, there was a perceived need to develop performance measures that capture the financial as well as the non-financial dimensions of performance so as to provide a holistic definition of organisational performance.

In WERS98, the measures of performance are qualitative and are derived from the managers assessments of what is happening in their own establishment relative to what they believe is happening in other establishments in the same industry. For measuring financial performance, the particular question asked is:

How would you assess the financial performance of this establishment compared with the establishments and firms in the same industry?

(i) a lot better than average (ii) better than average (iii) about average for industry (iv) below average (v) a lot below average.

For measuring labour productivity, the particular question asked is:

How would you assess the labour productivity of this establishment compared with the establishments and firms in the same industry?

(i) a lot better than average (ii) better than average (iii) about average for industry (iv) below average (v) a lot below average

The managers were also asked what financial measures they had in mind in making the assessment. In 52% of the cases they cited profit or value-added, 20% mentioned level of sales, fees or budgets and 19% mentioned costs or expenditure. The remainder was split between 3% who mentioned stock market indicators such as share prices, 2% who gave a range of other answers and 4% who were unable to say (Cully et al. 1999: 122).

5.6.2 Independent variable: Employee Share-Ownership schemes

A wide range of ESO schemes exist. Different establishments define share-ownership differently. In the interest of the generalisability of results, a broad definition of share-ownership schemes is chosen. The definition of share-ownership used in the existing study is based upon the management questionnaire in the WERS98 data-set.

The ESO scheme variable is derived from the manager respondent's answer to the question, *'Do any employees at this workplace receive payments or dividends from any of the following variable pay schemes?'*

(i) Profit-Related Payments or bonuses.

(ii) Deferred Profit-Sharing schemes.

(iii) Employee Share-Ownership schemes.

(iv) Individual or group performance related pay schemes.

(v) Other cash bonuses.

(vi) None of these.

The share-ownership variable captures the responses where the managers select Employee Share-Ownership schemes as a response to the above question. The existence of Employee Share-Ownership schemes in an establishment is referred to as the presence of share-ownership.

There exist variations on the share-ownership concept in terms of coverage of the share-ownership schemes. Both empirical evidence and theory make a case for distinguishing between coverage in terms of eligibility and actual participation in the schemes. First, previous studies hinted at a discrepancy between the proportion of people who were eligible to participate in the scheme and those who actually chose to participate in them (Dunn et al. 1991; Hyman et al. 1989). Second, the theoretical model suggests that these two groups differ with respect to their financial positions and perceptions of share-ownership schemes and these differences, in turn, would have implications on the outcomes associated with share-ownership schemes. Typically eligibility would capture the organisation's intentions with respect to inclusion of employees in the share-ownership scheme, and thereby has some symbolic value for the employees. Participation in the scheme, on the other hand, refers to a situation whereby the employees actually own shares.

Furthermore, Dunn et al. (1991) argue that the decision to participate in the scheme is influenced by the financial position of the employees and by the financial attractiveness of the scheme. Therefore, it would be difficult to determine whether employees participated in the scheme because they could afford to do so or because they perceived the scheme to be financially lucrative. However, if employees have similar financial backgrounds then the employee perceptions of the financial worth of the scheme, rather than their financial positions, would be the key factor influencing the employee decision to join the ESO schemes. Thus, if majority share-ownership coverage is restricted to employees with a similar financial position, i.e. non-managerial employees, one can assume that majority-participation in the scheme is indicative of its perceived financial worth. Therefore, majority non-managerial participation in the share-ownership scheme may be a good proxy for the perceptions of financial worth attached to the share-ownership scheme. Furthermore, by

definition, broad-based schemes would typically extend to non-managerial employees.

For the above reasons, coverage of the schemes is restricted to non-managerial employees and a distinction is made between the proportion of non-managerial employees who are eligible for the share-ownership scheme and those that actually choose to participate in the scheme. The former is referred to as majority-eligibility and the latter as majority-participation.

The share-ownership coverage variables are constructed from the following questions in the management questionnaire:

'What proportion of non-managerial employees are eligible for the Employee Share-Ownership schemes?' and;

'What proportion of non-managerial employees at the workplace participates in the Employee Share-Ownership scheme?'

The exact construction of the variable is provided in Appendix 5.

5.6.3 Contextual variables

Financial performance and labour productivity are influenced by a range of factors. A set of eleven control variables are identified, each of which are expected to influence the performance measures. The control variables were chosen because of the significant relationships found in earlier studies using WIRS3 (McNabb and Whitfield 1998) and the WERS98 data-sets (Addison and Belfield 2001). The controls include union recognition, technology levels, age of establishment, industry variables for the various sectors, establishment size, market characteristics like market growth, international market, the level of competition and the establishment status.

5.6.3.1 Trade unions

Studies investigating the effects of unions on performance generally indicate that unions have a negative influence on financial performance (Machin and Stewart

1990). Furthermore, Freeman and Medoff (1984) stated that the existence of a recognised union improves labour productivity, but does not have a positive effect upon financial performance. Trade unions are believed to raise labour costs by demanding higher wages. Higher costs reduce the profit margin and hence impact upon the financial performance adversely. However, the relationship with labour productivity is not quite as straightforward. On the one hand, higher wages may be associated with higher productivity. On the other hand, if trade unions are associated with high levels of strike activity and interfere with managerial decision-making, they may have an adverse effect on labour productivity. Hence, a contingency argument could be propagated, that predicts a general, negative impact of trade unions on labour productivity. The term 'Recognised Union' is used to represent the existence of at least one recognised union at the establishment. This measure of unionism is chosen because the trade unions are likely to have greater influence in the workplace if their role is recognised by management and they have legitimacy at the workplace (Guest 1995).

5.6.3.2 Level of technology

The level of technology is yet another factor expected to influence financial performance (McNabb and Whitfield 1998: 178) and labour productivity. Logic suggests that higher levels of technology increase the efficiency of the workers and hence improves labour productivity. High levels of technological efficiency reduce wastage and help the organisation experience economies of scale. As a result, it should lead to higher organisational performance. The level of technology is proxied by a variable based upon the proportion of unskilled workers employed. A negative relationship between the percentage of unskilled workers and financial performance and labour productivity is predicted.

5.6.3.3 Establishment age

There are grounds for postulating that the age of the establishment will affect its financial performance. Mc Nabb and Whitfield (1998) predict an inverse relationship between establishment age and firm performance. They argue that the propensity of

firms to relocate to greenfield sites in recent years suggest that the setting up of a new site is deemed preferable to reorganising an existing workplace. Using the economies of scale argument it could be argued that during the initial stages of growth, the organisation experiences economies of scale but after it attains a certain age it is likely to experience diseconomies of scale. In older establishments, the machinery may be outdated, the structure may be too hierarchical and not conducive to quick and efficient decision-making and disguised unemployment may exist. Hence, there is likely to be a negative relationship between the age of the organisation and the performance. In order to test the expectation that establishments in operation for a large number of years tend to report lower performance outcomes a dichotomous variable is created which includes establishments that have been in operation for more than 20 years. The choice of this variable was influenced by the logic that the 'greater than 20 years' time frame would apply to older establishments in the manufacturing as well as the non-manufacturing sector. Fundamentally, the firms in operation for greater than 20 years were representative of 44% of the workplaces in Britain across a range of industries. Representativeness and a large sample size are important considerations from the perspective of generalisability or findings and generating meaningful results.

5.6.3.4 Establishment size

The relationship between establishment size and financial performance is complex. On the one hand, large organisations are better able to enjoy economies of scale, thus contributing to improved organisational performance. On the other hand, very large organisations face diseconomies of scale caused by poor communication problems. Thus, a non-linear relationship between organisation size and performance can be expected with the medium organisations exhibiting the best performance (McNabb and Whitfield 1998). However, Cully et al. (1999) argue that workplace size is not related to the performance measures. Organisation size is only weakly related with managerial perceptions of financial performance and labour productivity. Since there is a lack of agreement as to how establishment size is related to organisational performance a continuous variable is used as a proxy for the establishment size. This continuous variable refers to the number of employees in an establishment and

includes establishments with a minimum of 10 employees and a maximum of 28,971 employees on its payroll.

5.6.3.5 Ownership status

The ownership status of the organisation may affect the financial performance as well as the labour productivity. Whether an establishment is predominantly foreign-owned or British affects the management style, the leveraging facilities and taxation benefits. Whether the establishment is a single independent establishment not belonging to a larger body or a sole UK establishment of a foreign organisation might affect its ability to generate profits. Once again, it could be linked to size. An independent establishment is likely to have lesser economies of scale as compared to one that is part of a larger organisation. On the other hand, an establishment which is part of a larger organisation is less flexible to the changes in market demand. Nevertheless, the ownership status is likely to have an influence upon the financial performance and labour productivity, though the nature of the link is unclear.

5.6.3.6 Market growth

Apart from factors intrinsic to the establishment, there are a set of external factors that influence financial performance in particular. Two important market related factors can be identified. First, is the growth of the market. A growing market is characterised by an increasing demand for goods and services. In the short-run, the output produced may fall short of demand, resulting in a temporary increase in prices. Hence, firms are likely to earn higher profits. However, where the demand is sustained over the long-term, production will increase either by improving labour productivity or by hiring more employees. Either way, the existing capacity will be better utilised and the fixed costs per unit of output produced will be lower. Lower costs and higher labour productivity will translate into higher profits. It was observed that managers in workplaces where the market was said to be growing were much more likely to report above average performance in comparison to those establishments where the market was declining (Cully et al. 1999: 122). Hence, a positive association between market growth and the financial performance and the labour productivity is anticipated.

5.6.3.7 Industry

Related to the concept of market growth is that of the nature of the industry in which the firm operates. Market growth varies by industry. An initial analysis of the WERS98 data-set revealed that, even though managers across all industries tended to overstate their performance fairly consistently, there were some cases where industry-specific factors appear to have some impact. Industry variables have been introduced and include the manufacturing sector, public administration, education sector, health, electricity, gas and water, construction, wholesale and retail, hotels and restaurants, transportation and communications, financial services and business and community services (the omitted category being other community services). Each of these are dichotomous variables and are expected to capture any unmeasured industry effects.

5.6.3.8 Market competition

Another important factor that might affect firm performance is the level of competitiveness in the market. A high level of competition or perfect competition is associated with normal profits, whereas a situation where there are no competitors i.e. a monopoly, is generally characterised by high profits. Using this argument, one could predict that high competition levels have a negative influence on financial performance. However, the relationship to labour productivity may not be as clear cut. Increased product market competition might increase pressure on employees to perform better and may actually boost labour productivity. The actual variable used refers to a situation where the establishment faces many competitors for its main product or service.

5.7 Estimating framework: Share-ownership and affective commitment

An ordered probit equation is estimated to test the share-ownership and affective commitment relationship. The ordered probit model is chosen because the dependent variable has an ordinal ranking ranging from 0, 1, 2, 3 or 4, where 0 corresponds to the lowest levels of commitment and 4 corresponds to the highest levels of commitment (see Appendix 6).

In order to maintain consistency in the analysis, the sample is restricted to the trading sector, similar to the analysis on share-ownership and performance (Section 4.5). However, the data are not weighted. The main advantage of using an unweighted model is that standard errors are smaller in comparison to the weighted model. A comparison of the coefficient estimates for a weighted model and an unweighted model revealed that the coefficients do not differ by more than a small amount. In such circumstances, an unweighted model is preferred so as to take advantage of smaller standard errors relative to the weighted model (Purdon and Pickering 2001).

5.7.1 The base regression equation

Hypothesis 17 suggests that ESO schemes have a positive and significant association with affective commitment and is tested by estimating the following regression model:

Affective commitment = α + β_1 (share-ownership presence) + β_2 (Establishment Controls) + β_3 (Industry Controls) + β_4 (Employee Controls).....(10)

The base equation contains affective commitment as the dependent variable and the presence of share-ownership as the independent variable. Affective commitment towards the firm takes values 0', '1', '2', '3' or '4' which range from 'Strongly Disagree', 'Disagree', 'Neither Agree nor Disagree', 'Agree' to 'Strongly Agree' in attempting to capture the degree to which an employee feels a sense of loyalty towards the organisation. The presence of share-ownership variable is identical to the variable used in the equation specifying the share-ownership and performance link discussed Section 4.5.1.

The control variables are broadly classified into individual- and establishment-related variables. The individual characteristics are grouped into sex, ethnic background, age, marital status, tenure, qualification, occupational status, job characteristics and pay

levels. The establishment characteristics are classified into organisation size, market characteristics, ownership status (public, foreign, independen), time of operation and union representation.

Variations of the basic equations result in a series of different specifications. The specifications result in alterations in the right hand side variables. The left hand side variable remains unaltered. The equations are estimated using the ordered probit model.

5.7.2 Managerial versus on non-managerial employees

Hypothesis 22 suggests that ESO schemes which are narrowly defined and are restricted to managerial share-owners result in lower commitment levels compared to schemes that include non-managerial share-owners. In order to test Hypothesis 22, the the presence of share-ownership variable has been divided into two sub-groups. The first is where only managers are eligible for the share-ownership schemes. The second is where both managers and non-managers are eligible for the share-ownership scheme. The former is represented by 'only managerial share-ownership' and the latter by 'managerial and non-managerial ownership'. The regression equation takes the following form:

Affective commitment = $\alpha + \beta_1$ (only managerial share-ownership) + β_2 (managerial and non managerial ownership) + β_3 (Establishment Controls) + β_4 (Industry Controls) + β_5 (Employee Controls).....(11)

5.7.3 Share-ownership coverage

Hypotheses 23 and 24 suggest that, when the majority of employees own shares, the levels of affective commitment are much higher than when a majority of the employees are merely eligible for ownership or where some form of share-ownership is present. These hypotheses are tested by replacing the presence of share-ownership variable by variables that reflect a situation where 60-100% non-managerial

employees are covered by the share-ownership scheme. In the first iteration the the presence of share-ownership variable is replaced by the majority-eligibility variable (60-100% non-managerial employees are eligible to own shares). In the second iteration, it is replaced by the majority-participation variable (60-100% non-managerial employees participate in the share-ownership scheme). The following regression equations are estimated:

Affective commitment = α + β_1 (majority-eligibility/majority-participation) + β_2 (Establishment Controls) + β_3 (Industry Controls) + β_4 (Employee Controls) (12)

5.7.4 Participation mechanisms

According to Hypothesis 18, the positive and significant relationship between share-ownership and affective commitment holds good even when employee participation schemes are present. The participation in decision-making variables are added to the base equation to test Hypothesis 18. These participation in decision-making variables measure the extent to which the employee concerned is involved in participation in decision-making and not just whether formal participation in decision-making schemes are existent in the workplace. Hence, they are different from the participation in decision-making variables used in the share-ownership/performance regressions equations. Furthermore, a distinction is made between participation in decision-making at the job-level and at the organisational-level. This distinction is in line with the theory which suggests that employees respond differently to different levels of participation in decision-making (Long 1979; Trewhitt 2000; Pendleton 1998 and 2001 and Kruse 1984). Hypothesis 18 is tested by estimating the following equation:

Affective commitment = α + β_1 (the presence of share-ownership) + β_2 (job-level participation in decision-making) + β_3 (organisational-level participation in decision-making) + β_4 (Establishment Controls) + β_5 (Industry Controls) + β_6 (Employee Controls).....(13)

Furthermore, Hypothesis 19 postulates that share-ownership schemes combined with participation in decision-making have stronger relationships to affective commitment

compared to share-ownership alone. Hypothesis 20 suggests that higher levels of commitment are observed when employee-owners can participate in decisions directly related to their jobs, rather than those decisions that concern the organisation as a whole. To test the Hypotheses 19 and 20, interaction terms based on the presence of share-ownership with job-level and organisational-level participation in decision-making are added to Equation 13.

Similar interaction terms based on broader measures of share-ownership coverage such as majority-eligibility and majority-participation are introduced in Equation 13 so as to test Hypotheses 25 and 26. These hypotheses suggest that, when the majority of employees own shares and have participatory rights, higher levels of affective commitment are observed than when participation in decision-making coexists with majority-eligibility or the presence of share-ownership schemes. Hence, the following equations are estimated:

Affective commitment = α + β_1 (the presence of share-ownership/majority-eligibility/majority-participation)+ β_2 (job-level participation in decision-making) + β_3 (organisational-level participation in decision-making) + β_4 (the presence of share-ownership/majority-eligibility/majority-participation*job-level participation in decision-making) + β_5 (the presence of share-ownership/majority-eligibility/majority-participation*organisational-level participation in decision-making) + β_6 (Establishment Controls) + β_7 (Industry Controls) + β_8 (Employee Controls).....(14)

5.7.5 Other financial participation schemes

Hypothesis 21 suggests that the original association between the presence of share-ownership schemes and affective commitment persists when other financial participation schemes are present.

Hence, Profit-Related Pay and Deferred Profit-Sharing schemes are added to the base regression model in order to test for the impact of other financial participation

schemes on the share-ownership/affective commitment relationship. The following regression equation is estimated:

Affective commitment = $\alpha + \beta_1$ (the presence of share-ownership)+ β_2 (Profit-Related Pay) + β_3 (Deferred Profit-Sharing schemes) + β_4 (Establishment Controls) + β_5 (Industry Controls) + β_6 (Employee Controls).....(15)

5.7.6 Affective commitment and performance

If share-ownership schemes are associated with higher affective commitment levels, only then is Hypothesis 27 tested. Hypothesis 27 states that ESO schemes enhance organisational performance through higher commitment levels.

This can be achieved by including a fitted value of the affective commitment variable to the base regression equation, estimating the relationship between share-ownership and the two dimensions of performance (see Section 5.5.1). The fitted value of affective commitment is used in order to address the issue of simultaneity. The simultaneity bias arises because of using the affective commitment as a dependent variable in one regression equation and as an independent variable in another regression equation alongside the explanatory variables used for predicting affective commitment in the original regression equation.

Furthermore, the association between affective commitment and the two performance dimensions is also estimated for a regression equation containing majority-eligibility and majority-participation as measures of share-ownership coverage. In order to achieve this, two fitted values are calculated. One fitted value is obtained from the regression equation estimating the relationship between majority-eligibility and affective commitment. The other fitted value is derived from the equation estimating the effect of majority-participation in share-ownership on affective commitment. The former fitted value is included in the regression equation testing for the effect of majority-eligibility in share-ownership schemes on financial performance and labour productivity. The latter fitted value of affective commitment is included in the

equation that investigates the effect of majority-participation in share-ownership schemes on the two dimensions of performance. Hence the following regression equations are estimated:

Better than average financial performance = α + β_1 (the presence of share-ownership/majority-eligibility/majority-participation)+ β_2 (fitted value of affective commitment) + β_3 (Establishment Controls) + β4 (Industry Controls).....(16)

5.8 Key variables: Share-ownership and affective commitment

5.8.1 Outcome variable: Affective commitment

There is little consensus on the definition of organisational commitment, but Meyer and Allen (1997) suggested that common to the various definitions of organisational commitment is "the view that commitment is a psychological state that (a) characterises the employee's relationship with the organisation, and has implications on the decision to continue membership in the organisation" (ibid.: 11). They identified three components of organisational commitment - affective commitment, continuance commitment and normative commitment. Of these, affective commitment, i.e. employee's emotional attachment to, identification with and involvement in the organisation, is expected to be associated with higher performance outcomes. Therefore, the concept of affective commitment is used in this thesis in order to test whether ESO schemes affect organisational performance through enhanced commitment. The measure for affective commitment adopted in this thesis i.e. 'feeling of loyalty towards the company' has been widely used in other studies (Lincoln and Kalleberg 1996; Luchak 2003).

The affective commitment variable is constructed from the employee survey in the WERS98 data-set and is based on the question which seeks to determine the extent to which the employee would agree or disagree that they have a sense of loyalty towards their workplace.

5.8.2 Contextual variables

Apart from share-ownership schemes, a set of factors influencing affective commitment are identified. Many of them are based on the established models of affective commitment (Steers 1977; Meyer and Allen 1997; Meyer and Herscovitch 2002). Affective commitment is influenced by characteristics intrinsic to the employee as well as factors related to their working environment. Hence, the control variables can be broadly categorised into employee characteristics and organisation characteristics. Employee characteristics consist of sex, ethnic background, marital status, educational qualifications, trade union membership, employment tenure, job status, occupational position and pay. The organisational factors expected to influence affective commitment can be classified into size of establishment, number of years the establishment has been in operation, industry, market characteristics, participation mechanisms, ownership status of the establishment and trade union membership. Expect for establishment age, most of the establishments characteristics are generally specified in the same way as in performance analysis. The detailed constructions of the contextual variables are provided in Appendix 6.

5.8.2.1 Sex and marital status

Steers (1977) and Meyer et al. (2002) argue that experiences at work and sense of worth in the organisation are important antecedents to affective commitment. Since women are often discriminated against in terms of pay and promotion prospects, their workplace experiences may be less favourable than men (Robinson 2002). Conversely, men should have higher feelings of affective commitment compared to women. Fundamentally, women may prioritise family responsibilities over their work responsibilities, consequently women are likely to be less committed to the workplace compared to men. Hence, a positive and significant link between employees who are male and affective commitment can be anticipated indicating that a male employee has a higher commitment level compared to a female employee.

The marital status of an employee is also acknowledged as a factor that determines the levels of affective commitment to the workplace (Meyer et al. 2002; Lincoln and Kalleberg 1996; Steers 1977). Lincoln and Kalleberg (1996) argue that employees

feel a stronger bond towards the firm when they take on family obligations because their need for the job increases substantially. This argument is consistent with the theory that any personal or situational variable that contributes to the likelihood that an individual will recognise the value of association with an entity, will contribute towards the development of affective commitment (Meyer and Herscovitch 2001; Steers 1977). Thus, there is a strong theoretical rationale to expect that married employees will show higher commitment compared to those who are not married.

5.8.2.2 Ethnicity

Ethnic back ground influences work ethics and value systems of individuals and could influence their feelings of identification to their workplace. For example, there is evidence to suggest that Japanese workers often show greater levels of commitment compared to their American counterparts. Though these differences are mainly attributable to different HRM systems and organisational structures, Lincoln and Kalleberg (1996) suggest that some of the differences in the commitment levels can be attributed to ethnicity and cultural differences. Hence, ethnicity could be identified as a predictor of affective commitment. The main ethnic minority communities, i.e. Black, Asian and Chinese, are represented, while controlling for the effects of ethnicity on affective commitment.

5.8.2.3 Employee age

Meyer et. al. (2002) predict a positive relationship between age and affective commitment. Age of an employee is likely to influence employee needs, goals and aspirations and expectations from the workplace and also their perceptions regarding the relevance of the workplace in achieving these objectives. For example, employees in the older age groups may have a greater need for affiliation and stability in contrast to the younger employees who are likely to seek change and challenges. Consequently older employees view a stable relationship with the organisation as a route through which they can achieve their aspirations and fulfil their needs. This realisation is likely to contribute towards a greater sense of identification with the workplace and lead to higher affective commitment. Hence, older employees are likely exhibit a greater sense of affective commitment to the organisation as compared to younger

employees. Age categories included in this analysis range from 20-24 years, 25-29 years, 30-39 years, 40-49 years, 50-59 years and 60 years or more.

5.8.2.4 Job tenure

Another variable is tenure, or the number of years an employee has been working in the establishment. Generally, long tenure is associated with higher levels of affective commitment. A highly committed employee is likely to work longer in an establishment. On the other hand, employees with long tenure could develop a sense of identity with the establishment, thereby resulting in positive affective commitment (Meyer and Allen 1997). However, recent evidence has also suggested that the relationship between organisational tenure and affective commitment reported in previous studies is really because of employee age (Allen and Meyer 1993). However, based on the existing theoretical arguments, a positive association between tenure and affective commitment could be anticipated. Tenure is broadly classified into: 1 to less than 2 years; 2 to less than 5 years; 5 to less than 10 years and 10 years or more.

5.8.2.5 Educational qualifications

Evidence suggests that educational qualifications are inversely related to affective commitment (Steers 1977). This could be explained by the fact that highly-qualified employees have greater expectations for rewards and challenges at the workplace. When an individual is ambitious, it might be more difficult for the organisation to meet the expectations of the employees. Thus highly educated people would be less committed to the organisation and perhaps more committed to the profession or trade (Steers 1977:53). An inverse relationship between level of educational qualification and affective commitment is expected (Lincoln and Kalleberg 1996). Educational qualifications are categorised into A levels, O levels, NVQ (vocational qualifications). The omitted categories being, degree and postgraduate qualifications.

5.8.2.6 Occupational status, nature of job and pay

Steers (1977) and Meyer et al. (2002) envisage a positive association between feelings of personal importance to the organisation and affective commitment. The

occupational position of the employee at the workplace is often a reflection of the status or value ascribed to the employee by the organisation. Consequently the occupational position of the employee might influence employee feelings of personal importance to the organisation thereby influencing feelings of affective commitment. Therefore, those in slightly lower positions in the organisational hierarchy such as non managerial employees may have lower levels of affective commitment compared to those who are higher up in the organisational hierarchy such as managers. The occupational groups included in the analysis were clerical staff, professionals, associate professionals, and technical staff, craftsmen, assembly and line workers, and sales staff.

The nature of the job, i.e. fixed, temporary or permanent, is another factor that might contribute to feelings of affective commitment. It is likely that a permanent job would generate more positive work experiences because it offers a greater feeling of security and support to the employee compared to a fixed or temporary contract. Employee perceptions of organisational support are widely recognised as factor contributing towards feelings of affective commitment (Allen and Meyer 1990; Eisenberger et al. 1986). Hence, having a permanent job could be positively associated with affective commitment.

Furthermore, pay is likely to be associated with higher affective commitment particularly if it contributes to feelings of personal competence (Mathieu and Zajac 1990). Two ends of the pay spectrum are considered so as to compare the relative effects of high and low pay on affective commitment.

5.8.2.7 Trade union membership

Dewe et al. (1988) identified trade union membership as an important factor influencing employee perceptions of the work and the work environment. Union members were more inclined to see their jobs as boring, to believe that there was too much pressure to work over time thus contributing to negative experiences at work (Lincoln and Kalleberg 1996). They were somewhat less likely to feel a sense of loyalty to the firm. Consequently, a negative relationship between trade union membership and affective commitment could be predicted.

5.8.2.8 Establishment size and age

Small and medium enterprises are generally characterised by close personal ties between management and workers and good communication systems and these factors contribute to better labour-management relationship and higher levels of commitment. In contrast, a large establishment is often characterised by breakdown of communication systems, reliance on rumours and a formal management and employee relationship. Hence, a positive association with affective commitment could be expected for small and medium-sized establishments and negative associations for the big establishments. Lincoln and Kalleberg (1996) however, find that plant size is positively related to feelings of identification and pride. Establishment size is no longer a continuous variable as in the share-ownership and performance analysis. Instead, it is classified into three categories, big (10,000 or more employees), small (less than 200 employees) and medium (200-9,999 employees) so as to explicitly compare the levels of commitment in smaller establishments relative to the larger ones.

Often establishment size is reflected in the age of an establishment. Similar arguments can be used to predict the effect of establishment age on affective commitment. Older establishments are likely to have strong corporate cultures and well-developed human resource policies and at the same time these establishments are likely to be more hierarchical and less decentralised than the younger establishments. On the one hand, a strong organisational culture is likely to contribute to the internalisation of the core value of the organisation leading to higher affective commitment (Lincoln and Kalleberg 1996). On the other hand, a hierarchical structure, lower decentralisation of power and authority is likely to foster lower levels of affective commitment (Bateman and Strasser 1984). Establishment age is treated as a continuous variable with 997 years being representative of the oldest establishment.

5.8.2.9 Sectors, market share and competition

A number of industry dummies have been used in share-ownership and affective commitment equations. The industry dummies will capture any unmeasured industry effects. Apart from the level of competition and the growth of the market, another market characteristic was added to the controls. The market share of the establishment's main product or service in the UK market was considered to be another market characteristic that might affect affective commitment. It is argued that the greater the share of the establishment in the market the establishment will be in a position to dictate the price in the market. This advantageous position is likely to result in substantial profits and this may translate into better working conditions and higher pay for the employees thus fostering higher commitment. Under the circumstances, it is likely that a high market share is positively associated with affective commitment. Since a high market share also means low competition, the level of competition faced will be positively associated with affective commitment. The existence of an international market for the main product or service is yet another market characteristic likely to affect levels of affective commitment. If the market for the main product or service is international, then the establishment will be protected from market shocks within the local market. Employees will have an opportunity for mobility and career development. Hence, a positive association with affective commitment can be anticipated.

5.8.2.10 Employee participation schemes

Lincoln and Kalleberg (1996) suggest that participatory mechanisms like quality circles and problem solving and groups raise levels of affective commitment by increasing employee identification with the goals and values of the establishment. Formal participatory mechanisms are expected to integrate the employees into the life of the firm. The participatory mechanisms are categorised into quality circles, joint consultative committees and team briefing.

5.8.2.11 Ownership status of firm

The ownership status variable is classified into: foreign ownership, independent status, and public sector establishment. An establishment with foreign ownership might have negative affective commitment, because they might be unable to integrate the local employees with the goals of the establishment. It might be argued that an independent establishment has an integrated corporate culture. Therefore, a positive association between an establishment with an independent status and affective commitment can be envisaged.

Lincoln and Kalleberg (1996) argue that the status of a firm as an independent firm or as a branch of a national corporation has an impact upon affective commitment levels. According to them, large and nationally integrated firms have strong internal labour markets and there exists stability and the resources necessary for employment security, welfare services and a 'strong corporate culture' (Edwards 1979, in Lincoln and Kalleberg 1996:41). This bundle of workplace practise and structures are likely to foster higher affective commitment (welfare corporatism). However, since these structures are unlikely to be evident in independent establishments it could be argued that firms with an independent status are likely to be negatively associated with affective commitment. On the other hand, there is evidence to suggest that decentralisation has been related to higher levels of affective commitment (Bateman and Strasser 1984). Since single status establishments are more decentralised than those that are part of a larger organisation it could be expected that the single status firms have higher affective commitment. While it is difficult to predict the direction of association between the status of a firm and affective commitment, there are sufficient arguments to warrant the inclusion of firm status as an antecedent for affective commitment.

The relationship between private sector ownership and affective commitment is difficult to predict. On the one hand, the private sector firms are associated with a hire and fire policy security which promotes affective commitment. On the other hand, a private sector establishment is flexible and is not very hierarchical. US results are

strongly supportive of the view that open communication systems and workplace flexibility can contribute towards positive work experiences and hence lead to higher levels of affective commitment (Lincoln and Kalleberg 1996).

5.8.2.12 Recognised trade union and establishment age

The existence of unions is considered to be a factor influencing employee attitudes and affective commitment. A frequently replicated US survey finding is that unions foster negative job attitudes (Freeman and Medoff 1984; Lincoln and Booth 1993 in Lincoln and Kalleberg 1996). Freeman and Medoff's (1984) interpretation is that the adversarial climate of the union shop 'politicises' the employment relationship such that the workers view the firm negatively despite general satisfaction with their jobs (1996:41). Hence, a negative association between the existence of a recognised trade union and affective commitment can be expected.

5.9 Estimating framework: Share-ownership and employee turnover

A weighted least squares equation using establishment weights is estimated to test the effect of different dimensions of share-ownership on employee turnover. The regression model relies on establishment level data. Similar to the analysis of share-ownership/performance, the data is weighted using establishment weights so as to create an unbiased population estimate (Purdon and Pickering 2001).

The sample is restricted to the trading sector so as to maintain consistency with the regression models estimated for share-ownership/performance and the share-ownership/commitment relationships.

5.9.1 The base regression equation

Employee turnover = α + β_1 (presence of share-ownership) + β_2 (Establishment Controls) + β_3 (Industry Controls) + β_4 (Workforce Controls).....(17)

The base regression equation contains employee turnover as the dependent variable and the presence of share-ownership schemes as the key independent variable. Employee turnover captures the proportion of employees who quit their respective workplaces in the past 12 months. This tests Hypothesis 28 which predicts an inverse relationship between the existence of share-ownership schemes and the levels of employee turnover.

5.9.2 Share-ownership coverage and employee turnover

Hypotheses 29 and 30 suggest that levels of employee turnover are lower when the majority of employees participate in the scheme relative to cases where the majority of employees are eligible for share ownership or where some form of share ownership schemes are present. These hypotheses are tested using two iterations. First, the presence of share-ownership variable is replaced by the majority-eligibility variable. Second, the presence of share-ownership variable is replaced with the majority-participation variable (60-100% non-managerial employees participate in the share-ownership scheme). Hence, the following regression equations are estimated:

Employee turnover = α + β_1 (majority-eligibility/majority-participation) + β_2 (Establishment Controls) + β_3 (Industry Controls) + β_4 (Workforce Controls).....(18)

5.9.3 Employee turnover and performance

If the presence of share-ownership is associated with reduced employee turnover, then an additional regression will be estimated to test whether reduced employee turnover has a positive impact upon performance. Furthermore, it tests the extent to which the share-ownership and performance relationship is explained by lower employee

turnover. This estimation along with the base regression equation will test the Hypothesis 31, which suggests that share-ownership schemes impact on organisational performance through lower employee turnover.

The relationship between employee turnover and organisational performance is estimated using a binomial probit model and using a fitted value of employee turnover. The first fitted value of employee turnover is obtained from the base regression equation estimating the relationship between the presence of share-ownership schemes and employee turnover. This fitted value is included in the base equations for the presence of share-ownership and performance. The fitted values are used in order to address the issue of simultaneity which arises due to using employee turnover as an independent variable alongside the explanatory variables used for predicting employee turnover in the base regression equation.

Furthermore, the association between employee turnover and the two performance dimensions is also estimated for a regression equation containing majority-eligibility and majority-participation as measures of share-ownership coverage. In order to achieve this, two fitted values are calculated. One fitted value for employee turnover is obtained from the regression equation estimating the relationship between majority-eligibility and employee turnover. The other fitted value is derived from the equation estimating the effect of majority-participation on employee turnover. The former fitted value is included in the regression equation testing for the effect of majority-eligibility on financial performance and labour productivity. The latter fitted value of employee turnover is included in the equation that investigates the effect of majority-participation on the two dimensions of performance. Hence the following regression equations are estimated:

Better than average financial performance / Better than average labour productivity = $\alpha + \beta_1$ (the presence of share-ownership/majority-eligibility/majority-participation) + β_2 (fitted value of employee turnover) + β_3 (Establishment Controls) + β_4 (Industry Controls).....(19).

5.10 Key variables: Share-ownership and employee turnover

5.10.1 Outcome variable: Employee turnover

Employee turnover is the permanent exit or withdrawal of employees from the organisation. Previous reviews of the literature and research on employee turnover have identified two key forms: (1) voluntary turnover, which occurs when the exit is self initiated; and (2) involuntary turnover, which occurs from organisation initiated terminations (Buchko 1992: 715).

Construction of the employee turnover variable is based upon a question in the WERS98 'Employee Profile' data sheet which investigates the number of permanent employees that resigned over the past twelve months. It is simply the number of permanent employees who resigned in the twelve months preceding the survey, divided by current employment levels. The log value of the employee turnover variable is included in the base regression equation. Taking the log of employee turnover converts the highly skewed employee turnover data into a normal distribution. This, satisfies the condition of normality and adjusts for heteroskedasticity.

5.10.2 Contextual variables

The choice of the contextual variables is based upon Fernie and Metcalf's (1995) model investigating the relationship between financial participation schemes and various industrial relations outcomes like employee turnover and absenteeism. The choice of control variables is also guided by the antecedents of employee turnover identified in previous empirical work (Cotton and Tuttle 1986).

Employee turnover is influenced by workforce characteristics as well as factors related to their working environment. Hence, the control variables can be broadly categorised into workforce characteristics, establishment characteristics and environmental characteristics. Workforce characteristics like age of workforce, gender, ethnic background, skill level, occupational distribution, employment status

and levels of pay are identified as important characteristics that influence employee turnover (Addison and Belfield 2001; Cotton and Tuttle 1986; Fernie and Metcalf 1995). Except for the workforce characteristics related to age and pay, the other workforce characteristics are based upon Fernie and Metcalf's (1995) model. The establishment characteristics can be classified into size of the establishment and ownership status, the presence of communication systems, grievance-handling procedures and the presence of a trade union. Finally, environmental characteristics include the nature of the industry.

Variables like the existence of a recognised union, ownership status (Independent establishment and Private sector), size of establishment and the industry dummies are identical to those used in the regression equation estimating the effect of share-ownership on performance. Details are provided in Section 5.6.3.

5.10.2.1 Sectors

Industry influences the levels of pay, perceived economic alternatives and the presence of unions which, in turn, influence levels of employee turnover (Cotton and Tuttle 1986). Employee turnover is generally high in industries that are characterised by low replacement costs, a constant need for fresh talents and are reliant on a large proportion of part-time employees (for example, hotels, and other service industries). High turnover is also expected in industries where the workforce is highly skilled or educated (Lincoln and Kalleberg 1996). Therefore, a positive relationship with employee turnover is predicted for knowledge-based and service industries, whereas a negative relationship with employee turnover is predicted for manufacturing sectors.

5.10.2.2 Establishment size

An inverse relationship between establishment size and employee turnover can be predicted because larger establishments generally have an internal labour market and seniority based pay. Therefore, employees have a financial and non financial (pay, training facilities, career progression) incentive to stay on in larger establishments (Lincoln and Kalleberg 1996). Consistent with the analysis of share-ownership and performance, establishment size is measured as a continuous variable.

5.10.2.3 Ownership status

The status of an establishment can be defined in terms of public sector versus private ownership. Alternatively, it can be defined in terms of an independent status versus being part of a larger organisation. A public sector firm generally encourages an internal labour market, often promises a job for life and promotion is typically linked to tenure (Lincoln and Kalleberg 1996). Therefore, there is a clear incentive to stay in the organisation and there is likely to be lower levels of employee turnover. Private sector organisations are more likely to have a hire and fire policy, and promotions and rewards are more likely to be linked to individual performance. This can breed insecurity, resulting in high levels of employee turnover. Hence, a positive association between private sector establishment and employee turnover is predicted.

The status of an establishment can also be defined in terms of a single independent establishment versus one that is part of a large organisation. Typically, an independent establishment will have greater flexibility in dealing with the grievances of the individual employees and can have human resource practices directed towards the needs of its workforce. There is also likely to be clearer communication between management and employees. An establishment that is a unit of a larger organisation may have lesser integration with the head office and greater opportunity for poor communication. Furthermore, a single unit is more capable of dealing with grievances, whereas those establishments that are not independent often have a very hierarchical set-up, and hence the grievances may not be handled at the right moment. Therefore, a single establishment is likely to be associated with reduced levels of employee turnover.

5.10.2.4 Recognised trade union and grievance handling policy

There is evidence that the presence of trade unions is associated with lower levels of employee turnover (Cotton and Tuttle 1986; Freeman and Medoff 1984). Apart from negotiating pay and working conditions, unions also address grievances and this, in turn, could affect employee satisfaction with the work environment and perceptions of justice, both of which might influence the employee decision to remain. Therefore, a

negative relationship between the presence of trade unions and employee turnover is predicted.

Following from the above argument, the presence of formal grievance-handling procedures may be yet another factor influencing employee perceptions of justice and job satisfaction. Hence, the presence of grievance handling procedures is likely to a positive impact upon the turnover intentions and levels of employee turnover.

5.10.2.5 Pay

Another important factor influencing employee turnover is pay. Some suggest that high pay is associated with lower levels of employee turnover (Porter and Steers 1973 and Price 1977 in Cotton and Tuttle 1986), whilst others suggest that the relationship is inconclusive (Mobley et al. 1979). However, intuition suggests that a higher wage is likely to reduce employee turnover making the opportunity cost of quitting high. The 'percentage of full-time employees getting more than £22,000 p.a.' and the 'percentage of full-time employees earning less than £9,000 p.a are variables used to capture the effect of wage on employee turnover. Ideally, above £29,000 per annum would be considered as the higher end of the spectrum, however, due to small number of employees in this category (6% of total establishments), employees earning more than £22,000 was the preferred choice. A positive link between low pay and employee turnover is predicted.

Apart from pay, workforce characteristics like the proportion of part-time workers, the proportion of female workers, the proportion of non-white workers, the proportion of unskilled workers and the age of the workforce would be important predictors of labour turnover (Lincoln and Kalleberg 1996).

5.10.2.6 Part-time versus full-time workers

Part-time workers are more likely to quit than full-time employees and therefore organisations having a larger proportion of part-time workers are likely to have higher rates of turnover as compared to the organisations that have greater full-time employment. The higher propensity to quit amongst the part-time employees could

also be predicted using the concept of continuance commitment. Part-time workers have made less investment in the firm in terms of time and will have less to lose if they leave. Hence, part-time employees are likely to have less attachment to the firm compared to full-time employees and are likely to display a greater propensity to quit. Hence, a positive association between the proportion of part-time workforce and employee turnover is predicted.

5.10.2.7 Male versus female workers

Gender is also likely to play a role in influencing employee turnover (Arthur 1981; Marsh and Manari 1977; Lincoln and Kalleberg 1996). The general consensus is that women are more likely to quit than men (Arthur 1981; Marsh and Manari 1977). One of the arguments is that women have greater responsibilities outside work and are therefore more likely to quit. The effect of gender is captured by controlling for the proportion of employees that are female. A positive relationship between the proportion of female employees and the levels of employee turnover is predicted.

5.10.2.8 Ethnicity

The opportunities available to different ethnic communities differ because of factors like educational qualifications and government regulations. Generally, non-white populations have fewer job opportunities compared to the white employees. The lack of alternatives and available to the non-white employees restrict their mobility in the labour market, thereby increasing the opportunity cost of quitting an existing job and fostering greater continuance commitment. Since continuance commitment is an important predictor of employee turnover (Lincoln and Kalleberg 1996) it would be expected that workplaces with a high proportion of non-white employees will have a lower levels of employee turnover.

5.10.2.9 Employee age

Age has also been identified as a determinant of employee turnover (Arthur 1981; Koch and Rhodes 1981 in Cotton and Tuttle 1986). It is argued that younger employees will have greater flexibility and opportunities for mobility, desires to take

risks, lower levels of personal responsibilities and lesser costs associated with leaving. The percentage of employees under 20 years, is the variable used to control for the effect of age on employee turnover and should be associated with high employee turnover.

5.10.2.10 Skilled versus unskilled employees and occupational distribution

Finally, the skills of employees also determine the decision to quit. Generally, employees with higher skill levels have greater mobility and seek to get the maximum rewards for the skills they have to offer. In comparison, a low-skilled employee does not have a strong bargaining position in the job market and has to rely on the price dictated by the firm they work for. Hence, their opportunity cost of staying with a particular organisation is not very high, and they seek job stability and employment security. As a result, it could be argued that the lower skilled employees are likely to remain whereas the employees with high skill levels will have a grater propensity to quit. Therefore, it is expected that the proportion of unskilled workers is inversely related to employee turnover. The percentage of total routine unskilled workers is used to control for the effects of workforce skill on employee turnover.

A similar argument could be applied to occupational groups like technical and the scientific workers, clerical staff, craft and skilled workers and operative and assembly workers. However, professional staff such as, doctors and engineers generally possess high educational qualifications and the skills they possess are not necessarily specific to an establishment. Therefore, they have greater mobility in the labour market and may display a high propensity to quit. This argument is supported by Lincoln and Kalleberg (1996) who found that schooling reduces commitment and raises expectations of job rewards.

5.11 Conclusion

The research methodology employed in this thesis uses one of the largest and most representative data-sets in the world. In so doing, it seeks to complement previous studies on the performance effects of share-ownership establishments in a number of

ways. First, it seeks to address the lack of generalisability evident in previous research by testing the key hypotheses on share-ownership and performance. Second, the selection of a data-set with a response rate of nearly 86% minimises the selectivity bias evident in some of the previous studies. Third, the broad scope of the WERS98 data-set allows for the investigation of many of the key issues related to share-ownership and organisational performance by using a common sample and a standardised methodological construct. Fourth, by drawing on a sample of British firms, an attempt is made to address the lack of sufficient evidence on the share-ownership experience in the UK. Finally, the model specifications used for testing the key hypotheses are based upon well established theories drawn from the disciplines of economics and psychology. Therefore, the methodology developed in this thesis is particularly well suited for investigating the precise issues identified as relevant to understanding if and how ESO schemes are related to organisational performance.

Using the methodology described in this chapter the relationships between share-ownership/performance, share-ownership/commitment and share-ownership/turnover are investigated in Chapters 6, and 7 respectively.

Chapter 6

Share-Ownership and Organisational Performance

6.1 Introduction

A majority of the previous research on share-ownership and organisational performance tilts the evidence in favour of the argument that ESO schemes have a positive impact upon organisational performance. The few studies that provide contradictory evidence draw attention to a range of factors that possibly mediate the share-ownership/performance relationship. However, there is disagreement about the direction in which these factors influence this relationship. This is partly because the studies are not strictly comparable since they vary greatly with regard to research design and the specific dimension of the share-ownership and performance relationship that they investigate. In addition, generalisations are difficult to make because of two reasons. First, relatively few studies are based upon a large and representative sample size. Second, a significant proportion of the evidence is focused on the US experience. Therefore, the previous studies - by focusing on one of the many dimensions of the ESO/performance relationship and predominantly drawing on a select sample of US firms – have fallen short of providing a full representative picture of the factors mediating the nature and strength of the share-ownership and performance relationship.

This chapter addresses these limitations by drawing on a large and nationally-representative sample of British firms and applying a common methodological construct to test the key hypotheses which emerge from previous ESO/performance literature discussed in Chapter 2. The results of related to share-ownership and financial performance and labour productivity are summarised in this chapter.

6.2. The presence of Employee Share-Ownership schemes and organisational performance

According to Hypothesis 1 the presence of ESO schemes at a workplace will have a positive and significant association with organisational performance. Furthermore, it

is postulated that ESO schemes will have a stronger positive association with labour productivity rather than financial performance (Hypothesis 2). Table 6.1 summarises the results for the presence of share-ownership and performance.

The results in Table 6.1 provide strong support for Hypothesis 1. A positive and highly significant association (at the 1% level) is observed between the presence of ESO schemes and both the measures of organisational performance. Due to the cross-sectional nature of the study, there can be two interpretations of results. On the one hand, the results could imply that the ESO schemes contribute to higher performance outcomes. Alternatively, a positive and significant association could mean that the high-performing firms might be more inclined to introduce share-ownership schemes. However, performance outcomes are constantly changing, whereas the ESO schemes are relatively constant and continue to be in place irrespective of the financial performance of an organisation. In fact Millward et al. (2000) argue that share-ownership schemes change only when there is a change of ownership. Furthermore, there are strong theoretical arguments (Conte and Svejnar 1990) as well as longitudinal studies (Richardson and Nejad 1986; Pugh et al. 2000) which suggest that ESO schemes are an antecedent to higher organisational performance. Therefore, it is more likely that the higher performance outcomes are attributable to the existence of ESO schemes rather than the other way round. Thereby, the results could be interpreted as being consistent with the popularly held view that ESO schemes have a positive impact upon organisational performance (see Section 2.2)

However, the results in Table 6.1 provide no support for Hypothesis 2. In fact, the results suggest that the positive financial performance outcomes are almost double that of the labour productivity outcomes in the share-ownership establishments. The stronger association for share-ownership and financial performance could be because of the tax-benefits associated with the implementation of ESO schemes. These financial benefits are likely to have an immediate impact upon the profit margin and the financial performance indicators. Furthermore, the stronger association with financial performance could imply that ESO schemes affect organisational performance predominantly through financial benefits like tax advantages rather than through enhanced motivation and labour productivity.

TABLE 6.1 Impact of the share-ownership presence on performance

Independent and Control Variables	Economic Outcomes	
	Financial performance	Labour productivity
Constant	-.173	.0761
	(-.897)	(0.384)
Presence of share-ownership	.593***	.331***
	(5.377)	(3.079)
Recognised Union	-.155*	.008
	(-1.709)	(.090)
Level of Technology: % of unskilled workers	.081	.094
	(.440)	(.502)
Establishment Age: > 20 years	-.007	-.176**
	(-.093)	(-2.203)
Sectors		
Manufacturing sector	.193	-.307
	(.980)	(-1.521)
Public administration	.875***	.393
	(2.445)	(1.071)
Education	.415**	.352
	(1.986)	(1.623)
Health	.005	.424**
	(.022)	(1.957)
Electricity, gas and water	.159	-.111
	(.200)	(-.148)
Construction	-.103	-.441*
	(-.395)	(-1.719)
Wholesale and retail	-.056	-.287
	(-.295)	(-1.481)
Hotels and restaurants	.007	-.284
	(.032)	(-1.320)
Transport and communication	-.022	-.169
	(-.093)	(-.716)
Financial services	.182	-.432*
	(0.738)	(-1.740)
Other business services	-0.216	-.421**
	(-1.050)	(-1.983)
Establishment size 10 – 28,971 employees	0.016[a]	-.056[a]
	(0.103)	(-.302)
Market Characteristics		
Market growth	.455***	.205***
	(6.228)	(2.770)
International market	-.022	0.168
	(-.205)	(1.593)
Product market competition	-.013	-.020
(High competition for main product or service)	(-.168)	(-.248)
Establishment Status: Independent establishment	.183**	.009
	(2.151)	(.099)
Log Likelihood	-858.970	-842.770
Chi Squared	82.672	-881.433
N	1329	1273

Notes: The estimating framework for generating the results is provided in Section 5.5.1

(1) * Significant at 10% level , ** Significant at 5% level, *** Significant at 1% level.

(2) [a] multiplied by 1000.

(3) Binomial probit : maximum likelihood estimates

The coefficient estimates for the control variables generally conform to expectations. Union recognition is negatively and significantly associated with financial performance, but has an insignificant association with labour productivity. The inverse relationship between age of establishment and labour productivity is in accordance with the expectation that older organisations may suffer from diseconomies of scale and possibly out-dated and inefficient production methods.

The results for the industry dummies are somewhat puzzling with the non-profit maximising sectors like public administration and education reporting high financial performance and health reporting lower levels of labour productivity. In comparison, some of the profit maximising sectors like financial and business services and construction report lower levels of labour productivity. This could reflect low numbers of observations in the public administration and the education cells.

According to expectations, market growth is positively and significantly related to financial performance and labour productivity, indicating that the faster the market grows the higher the performance. The positive and significant association between single ownership status of an establishment and financial performance indicates that an independent status is associated with high financial rewards, possibly attributable to the high level of autonomy and flexibility that is generally enjoyed by independent establishments.

The results with respect to the level of technology are not significant. Establishment size has insignificant associations with both dimensions of performance, thereby lending support to Cully et al.'s (1999) argument that workplace size is unrelated to performance outcomes.

6.3 The presence of Employee Share-Ownership schemes and other financial participation schemes

6.3.1 Relative effects

According to Hypothesis 9, the positive and significant association between share-ownership schemes and organisational performance will remain unchanged even when other financial participation schemes are introduced. Furthermore, Hypothesis 10 suggests that share-ownership schemes have a weaker positive association with the performance outcomes in comparison with cash-based profit sharing schemes. Columns '1' and '5' of Table 6.2 show the results for the presence of share-ownership schemes and financial performance and labour productivity upon the inclusion of Profit-Related Pay and Deferred Profit-Sharing schemes.

The results indicate that when financial performance is used as a performance measure there is strong support for Hypothesis 9. However, the support is weaker when performance is measured in terms of labour productivity. When performance is measured in terms of financial performance, no significant change in the coefficient estimate is observed for the presence of share-ownership schemes even when Profit-Related Pay and Deferred Profit-Sharing schemes are included in the base regression equation (see Section 5.5.2). However, when labour productivity is used as a performance measure, a noticeable decline in the significance levels is observed for the presence of share-ownership variable. The coefficient estimates change from 0.331 (significant at the 1% level) (Column '2' of Table 6.1) to 0.210 (significant at the 10% level) (Column '5' of Table 6.2). Therefore, the results indicate that the high financial performance benefits attributable to share-ownership are independent of the existence other financial participation schemes. However, the high labour productivity outcomes observed in share-ownership establishments could be partially attributable to the presence of other financial participation schemes.

The results provide support for Hypothesis 10 only when labour productivity is the performance measure. The results for financial performance show that both ESO schemes and Profit-Related Pay have a positive and significant association with financial performance and Deferred Profit-Sharing schemes have an insignificant

association with financial performance (Column '1' of Table 6.2). In fact, ESO schemes have marginally higher performance outcomes in comparison with cash-based schemes like Profit-Related Pay, and significantly higher performance compared to Deferred Profit-Sharing. However, cash-based schemes, such as Profit-Related Pay have a significantly stronger association (at the 1% level) with labour productivity in comparison to a share-based scheme such as an ESO scheme (significant at the 10% level) (Column '5' of Table 6.3). In contrast, Deferred Profit-Sharing schemes (which lie midway between cash-based Profit-Related Pay and share-based schemes) have an insignificant association with labour productivity. It could be inferred from these results that establishments with cash-based schemes like Profit-Related Pay have higher labour productivity in comparison establishments with share-based schemes. However, share-ownership establishments have slightly higher financial performance relative to establishments that have Profit-Related Pay, but the difference is marginal.

The stronger labour productivity outcomes associated with Profit-Related Pay compared to the presence of share-ownership schemes, are consistent with the findings of Fernie and Metcalf (1995). The results could be explained using the 'line-of-sight' argument which suggests that cash-based profit sharing schemes establish a clearer connection between effort and reward in contrast to the share-based schemes (Conte and Svejnar 1991; McNabb and Whitfield 1998; Pendleton 1997). Indeed, Conte and Kruse (1991) found that the link between the individual financial rewards and company performance was particularly weak for establishments with share-ownership and Deferred Profit-Sharing schemes. Hence, this could explain why labour productivity is much lower for ESO schemes and Deferred Profit-Sharing schemes relative to Profit-Related Pay schemes.

At best, the results for financial performance are weakly supportive of a previous study which suggested that share-ownership schemes have a stronger impact upon financial performance than Profit-Related Pay schemes (Addison and Belfield 2000). However, the studies do not explain why the financial performance outcomes do not differ significantly for ESO schemes and Profit-Related Pay. One possible explanation could be that tax-benefits, reduced cash outflows and loan facilities associated with ESO schemes contribute towards enhanced financial performance. These financial

benefits might compensate for the weaker associations with labour productivity relative to Profit-Related Pay schemes. Hence share-ownership schemes have financial performance outcomes at par with the Profit-Related Pay schemes.

Furthermore, the higher labour productivity outcomes for ESO schemes relative to Deferred Profit-Sharing schemes suggest that not all cash-based profit-sharing schemes have a clearer 'line-of sight' compared to share-based schemes. Conte and Kruse (1991) find that there is a clearer link between individual efforts and organisational performance for ESO schemes than Deferred Profit-Sharing schemes. This is because, employee savings for Deferred Profit-Sharing schemes are invested in a portfolio that is fiduciarily sound (ibid. 1991). In contrast, it is required that investments are made primarily in employer securities in the case of ESO schemes. Therefore, the returns achieved through Deferred Profit-Sharing scheme portfolios reflect general financial market conditions, whereas the returns on ESO schemes reflect returns on employer stock and company performance (Conte and Kruse 1991). Hence, there is little connection between individual rewards and organisational performance for a Deferred Profit-Sharing scheme whereas the link is much clearer for an ESO scheme where the individual rewards are linked to organisational performance. This explains why participants in a Deferred Profit-Sharing scheme, have a lesser incentive to increase productivity compared to the ESO participants.

Finally, the results emphasise the heterogeneity of the financial participation schemes by reporting that different types of financial participation schemes have varied effects on performance outcomes. This observation is consistent with the findings of McNabb and Whitfield (1998).

TABLE 6.2 Relative and interaction effects of share-ownership presence and other financial participation schemes on performance

Independent Variables and Interaction Terms	Economic Outcomes							
	Better than average financial performance				Better than average labour productivity			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Constant	-.276	-.267	-.246	-.239	-.022	-.017	-.044	-.039
	(-1.406)	(-1.361)	(-1.257)	(-1.217)	(-.111)	(-.082)	(-.218)	(-.190)
Presence of share-ownership	.445***	.368***	0.006	-.056	.210*	.167	.602**	.563**
	(3.795)	(2.892)	(.027)	(-.234)	(1.815)	(1.322)	(2.397)	(2.204
Profit-Related Pay (PRP)	.315***	.320***	.249***	.256***	.292***	.295***	.345***	.349***
	(3.679)	(3.730)	(2.757)	(2.827)	(3.365)	(3.393)	(3.751)	(3.786)
Profit-sharing Schemes (Pshare)	.199	-.014	.200	.001	.021	-.104	.016	-.115
	(1.322)	(-.066)	(1.325)	(.006)	(.142)	(-.500)	(.112)	(-.555)
Empshare*Pshare	-	.461	-	.434	-	.242	-	.256
		(1.523)		(1.426)		(.839)		(.889)
Empshare*PRP	-		.569**	.554**	-	-	-.484*	-.491*
			(2.179)	(2.112)			(-1.767)	(-1.790)
Industry Controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Establishment Controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Log Likelihood	-850.865	-849.695	-848.487	-847.462	-837.032	-836.679	-835.456	-835.060
Chi Squared	98.882	101.222	103.639	105.688	88.802	89.508	91.955	92.747
N	1329	1329	1329	1329	1273	1273	1273	1273

Notes: The Estimating framework for generating the results is provided in Section 5.5.2

(1) * Significant at 10% level , ** Significant at 5% level, *** Significant at 1% level. (2) [a] multiplied by 1000. (3) Binomial probit : maximum likelihood estimates

(4) Sectors include *manufacturing sector*, public administration, education, health, electricity, gas and water, construction, wholesale and retail, hotels and restaurant, transport and communication, financial services, other business services.

(5) Establishment controls: union presence, level of technology, establishment age, establishment size, market growth, market competition and establishment status.

(6) The control variables used in the base regression equation have been included in the regression equation used for generating the above results. However, associations between the control variables and the performance outcomes are similar to that reported in the base regression equation. Hence, the results for the control variables are not displayed.

6.3.2 Interaction effects

Hypothesis 11 suggests that the presence of ESO schemes combined with other financial participation schemes will have a stronger effect upon performance outcomes compared to the presence of share-ownership alone.

The results summarised in Table 6.2 provide support for Hypothesis 11 only when financial performance is used as a performance measure and when the share-ownership schemes co-exist with Profit-Related Pay schemes. When financial performance is considered as a performance measure a positive and significant interaction coefficient (significant at the 1% level) is observed for the interaction term based on the presence of share-ownership schemes and Profit-Related Pay, but the coefficient is insignificant when ESO schemes are combined with Deferred Profit-Sharing schemes (Column, '4' of Table 6.2). In fact, the combined effect of the presence of share-ownership schemes and Profit-Related Pay shows higher financial performance outcomes compared to the independent effect of having share-ownership schemes in the workplace. This result reinstates the positive effects of 'bundling' together different financial participation schemes (Column '3' of Table 6.2). However, similar benefits are not evident for Deferred Profit-Sharing Schemes, since the presence of share-ownership has higher financial performance outcomes in comparison to a combination of ESO schemes and Deferred Profit-Sharing schemes (Column '2' of Table 6.2)

When labour productivity is used as a performance measure, the positive effects of 'bundling' together ESO schemes with other financial participation schemes are not evident. The coefficient on the interaction term based on the presence of share-ownership schemes with Deferred Profit-Sharing schemes is positive but insignificant, whereas the coefficient on the interaction variable with Profit-Related Pay is negative and significant (at the 10% level) (Column '8' of Table 6.2). The results show that when share-ownership schemes are combined with Deferred Profit-Sharing schemes labour productivity is unlikely to change, but labour productivity is likely to be lower when ESO schemes are combined with Profit-Related Pay. In comparison to the interaction terms, the coefficient estimate for the independent effects of the presence of share-ownership is three times larger and positive and significant at 5% level

(Column '8' of Table 6.2). This suggests that the independent effect of having share-ownership schemes on is stronger than a combination of ESO schemes with the other financial participation schemes. Therefore, the higher labour productivity outcomes in share-ownership firms are primarily applicable to the presence of share-ownership schemes rather than the combined effect of having share-ownership and financial participation schemes. However, the higher productivity outcome is attributable to the absence of Profit-Related Pay, rather than the absence of Deferred Profit-Sharing schemes. This is evident from the observation that the presence of share-ownership schemes in the absence of Deferred Profit-Sharing schemes has an insignificant association with labour productivity (Column '6' of Table 6.2). In comparison, the presence of share-ownership schemes in the absence of Profit-Related Pay has a positive and significant association with labour productivity (at the 5% level) (Column '7' of Table 6.2).

Previous studies conducted along similar lines provide mixed support for the results. The results for the positive interaction effects between share-ownership and Profit-Related Pay on financial performance provide support for Addison and Belfield (2000). This is not surprising since they also drew upon the WERS98 data-set. If one steps away from the specific performance measures used in the various studies, the results for the negative interaction effects of the presence of share-ownership schemes and Profit-Related Pay on labour productivity support the findings by McNabb and Whitfield (1998) who concluded that ESO schemes and Profit-Related Pay are substitutes.

Overall, the results provide support for a contingency argument by suggesting that the positive impact of combining ESO schemes with other financial participation schemes is evident for certain types of financial participation schemes and certain measures of performance. In so doing, it emphasises the heterogeneity of the financial participation schemes and provides support for the view that different financial participation schemes have varying effects upon performance outcomes. Furthermore, the positive performance effects of 'bundling' together ESO schemes with Profit-Related Pay is consistent with the argument that the sum of parts is more positive than the individual schemes (McNabb and Whitfield 1998; Pendleton 1997). Hence, the result is supportive of Hypothesis 11.

The lack of support for Hypothesis 11, when labour productivity is used as a performance measure, could be because share-ownership schemes foster a different type of behavioural pattern in comparison to a cash-based scheme. Hence, if share-ownership schemes are combined with cash-based schemes, they give mixed messages to employees and result in conflicting behaviour which, in turn, has a detrimental impact upon labour productivity. For example, ESO schemes attempt to tie employee rewards to the future prosperity of the company, and benefits are derived from a long-term increase in share value. Hence, ESO schemes are likely to encourage long-term commitment towards the establishment (Pendleton 1997), thereby developing long-term profit maximising behaviour. In comparison, Profit-Related Pay, where rewards are linked to the immediate company profits, may be used for improving short-term employee motivation (Pendleton 1997). Thus Profit-Related Pay is likely to encourage behaviour that focuses on short-term profit maximisation. Therefore, the lower labour productivity outcomes could be attributed to different behavioural patterns encouraged by the share-ownership and Profit-Related Pay schemes. Hence, it might be preferable to have either share-ownership or Profit-Related Pay schemes in the interest of favourable labour productivity outcomes. Since the combined effect of share-ownership and Profit-Related Pay schemes result in higher financial performance but lower labour productivity, the results could suggest that labour productivity is one of the many factors contributing to improved financial performance.

Furthermore, the insignificant association between performance and the combined effect of share-ownership and Deferred Profit-Sharing schemes could be attributed to the fact that these do not complement each other. The former seeks to foster an ownership spirit by linking pay to performance, whereas the latter is more of a pension scheme which seeks to provide employees with financial security by investing their savings in financially lucrative investments. Hence, it is not surprising that the combined impact of share-ownership and Deferred Profit-Sharing schemes does not result in higher performance outcomes compared to share-ownership alone.

In most cases, the control variables take their expected signs and do not change significantly upon the inclusion of variables for Profit-Related Pay and Deferred

Profit-Sharing schemes or upon the inclusion of the interaction terms based on the presence of share-ownership schemes and the two financial participation variables. Slight changes in the significance levels and coefficient estimates are observed for some variables such as recognised union, establishment status, education, financial services and the construction sectors. However, the changes are not significant. Therefore, the results for the control variables emphasise the robustness of the base regression equation.

6.4 Share-ownership coverage

Hypothesis 12 suggests that share-ownership establishments with a majority of the employees owning shares will have a stronger positive association with performance relative to those establishments where a majority of the employees are eligible for share-ownership. Furthermore, Hypothesis 13 states that when a majority of the employees participate in the share-ownership schemes higher levels of performance are observed compared to those establishments where share-ownership is present irrespective of coverage. Table 6.3 presents the results for different measures of share ownership coverage and their associations with performance.

The results in Table 6.3 provide no support for Hypotheses 12 or 13, irrespective of the measure of performance used. All three measures of share-ownership coverage have positive and significant associations (at the 1% level) with financial performance. In fact, the coefficient estimate for majority-participation is slightly lower than the coefficient estimates for majority-eligibility and the presence of share-ownership schemes (Columns '1', '2' and '3' of Table 6.3). However, the difference is marginal. Similar results are reported on using labour productivity as a performance measure. All three measures of share-ownership have a positive and significant association with labour productivity and have similar coefficient estimates. However, the strength of the association is the weakest in case of majority-participation (significant at the 10% level) relative to majority-eligibility and the presence of share-ownership schemes (both significant at the 1% level). Therefore, the results indicate that greater share-ownership coverage is not associated with higher labour productivity. In fact there is a lower likelihood of higher labour productivity outcomes when a majority of the employees own shares.

Overall, the findings suggest that broad-based share-ownership establishments are not associated with higher performance outcomes. This finding is contradictory to few of the previous studies that broader share-ownership coverage is associated with higher performance outcomes (Gamble 1998; Long 1980). Instead, the results support Hyman et al. (1989) who suggested that significant performance outcomes can be observed irrespective of share-ownership coverage. Specifically, the results are consistent with the studies that downplayed the importance of the proportion of employees covered by the scheme in affecting organisational performance (Conte and Tannenbaum 1978; Jochim 1979; Sockell 1985). Instead, these studies draw attention to the importance of factors like participation in decision-making, the size of equity stake and the presence of unions as key factors influencing performance outcomes in share-ownership establishments.

There could be several explanations as to why performance is not higher when a majority of the employees own shares, relative to when a majority of the employees are merely eligible for the schemes or the schemes are present irrespective of coverage. It may be that majority-participation on its own may not be sufficient for yielding higher performance unless accompanied by participation in decision-making schemes. This may be because majority-ownership unaccompanied by suitable participation in decision-making mechanisms may not succeed in establishing a clear 'line-of-sight' between collective efforts and firm performance (Renaud et al. 2004). Alternatively, it could also be that the size of the equity stake, rather than the proportion of the employees covered by the scheme, influences the performance outcomes (Conte and Tannenbaum 1978). In fact, broader ownership sometimes runs the risk of dilution of individual incentives, particularly if a small equity stake is shared by a large population (Blair and Kruse 1999).

The significance or size of the coefficients for the control variables do not change significantly irrespective of the measure of share-ownership coverage used.

TABLE 6.3 Impact of the share-ownership coverage on performance

Independent Variables and Interaction Terms	Economic Outcomes					
	Better than average financial performance			Better than average labour productivity		
	(1)	(2)	(3)	(4)	(5)	(6)
Constant	-.173	-.123	-.107	.076	.108	.122
	(-.897)	(-.642)	(-.555)	(.384)	(.551)	(.614)
Presence of share-ownership	.593***	-	-	.331***	-	-
	(5.377)			(3.079)		
60-100% of the non-managerial employees are eligible for share-ownership (Hicover)	-	.556***	-		.294***	-
		(4.503)			(2.440)	
60-100% of the non-managerial employees actually participate in the share-ownership (Hipart)	-	-	.481***		-	.298*
			(2.585)			(1.717)
Industry controls	Yes	Yes	Yes	Yes	Yes	Yes
Establishment controls	Yes	Yes	Yes	Yes	Yes	Yes
Log Likelihood	-858.970	-862.028	-842.967	-842.770	-843.8898	-818.453
Chi Squared	82.672	73.720	56.187	77.326	73.775	68.977
N	1329	1327	1284	1273	1272	1232

Notes : The estimating framework is provided in Section 5.5.3.

(1) * Significant at 10% level , ** Significant at 5% level, *** Significant at 1% level. (2) a multiplied by 1000. (3) Binomial probit : maximum likelihood estimates

(4) Sectors include manufacturing sector, public administration, education, health, electricity, gas and water, construction, wholesale and retail, hotels and restaurant, transport and communication, financial services, other business services.

(5) Establishment controls: union presence, level of technology, establishment age, establishment size, market growth, market competition and establishment status.

(6) The control variables used in the base regression equation have been included in the regression equation used for generating the above results. However, associations between the control variables and the performance outcomes are similar to that reported in the base regression equation. Hence, the results for the control variables are not displayed.

6.5 Share-ownership coverage: Manufacturing versus non-manufacturing sectors

Hypothesis 3 states that share-ownership schemes introduced in the non-manufacturing sector will be associated with higher performance relative to those that are introduced in the manufacturing sector. Furthermore, Hypothesis 16 suggests that establishments in the non-manufacturing sector with a majority-participation in share-ownership have higher performance compared to those that have a majority-eligibility in share-ownership or have share-ownership presence irrespective of coverage. Table 6.4 summarises the results for the performance effects of introducing the share-ownership in the manufacturing sector.

The results in Table 6.5 provide no support for Hypotheses 3 or 16 when financial performance is used as a performance measure, but both these hypotheses are supported when performance is measured in terms of labour productivity. When financial performance is considered, an insignificant association is observed for the interaction term based on the presence of share-ownership and the manufacturing sector (Column '1' of Table 6.4). Similar insignificant interaction effects are observed for the interaction terms based on majority share-ownership coverage and the manufacturing sector (Columns '2' and '3' of Table 6.4). These results indicate that the financial performance outcomes of share-ownership establishments are not influenced by sectoral differences. This finding persists irrespective of the measure of share-ownership coverage.

When labour productivity is used as a measure of performance, a negative and highly significant association (at the 1% level) is observed for the interaction term based on the presence of share-ownership and the manufacturing sector (Column '4' of Table 6.4). The results indicate that share-ownership schemes are associated with higher labour productivity when implemented in the non-manufacturing sector compared to lower levels of labour productivity when they exist in the manufacturing sector, thereby providing support for Hypothesis 3. On testing for the interaction effects of broader share-ownership coverage and the manufacturing sector, stronger negative and significant interaction effects (at the 1% level) with labour productivity are observed (Columns '4' and '5' of Table 6.4). The coefficient estimate for the

interaction term based on majority-participation is effectively three times the size of the coefficient estimate for the interaction term based on the presence of share-ownership (Column '4' of Table 6.4) and is nearly twice the size of the interaction term based on majority-eligibility (Column '5' of Table 6.4). One interpretation of the result is that the outcomes are higher for share-ownership establishments in the non-manufacturing sector, wherein a majority of the employees own shares relative to those where a majority of the employees are eligible for share-ownership or where some form of share-ownership schemes exists. Hence, there is support for Hypothesis 16.

Support for the hypotheses relating to labour productivity can be explained using the 'line-of-sight' argument. The link between effort, financial rewards and company performance is clearer in the non-manufacturing sector compared to the manufacturing sector. This is because the company performance is directly dependent upon the quality of service in the non-manufacturing sector, but indirectly affected by labour productivity in the manufacturing sector. Thus, employee-owners could be motivated to work harder in the non-manufacturing sector resulting in greater labour productivity relative to manufacturing sector.

However, the lack of support for the hypotheses when financial performance is used as a performance measure could be attributed to a more direct link between individual effort for labour productivity than for financial performance. If the manufacturing and the non-manufacturing sectors face similar market conditions, it is unlikely that the benefits associated with ESO schemes will translate into significant differences in financial performance outcomes between the two sectors. However, the benefits associated with ESO schemes will influence the levels of labour productivity, since productivity is predominantly influenced by factors within the establishment. Overall, the results also indicate that the sectoral differences may mediate the relationship between share-ownership coverage and performance.

No significant changes in the control variables are observed on introducing the interaction terms based on each of the three measures of share-ownership coverage and the manufacturing sector.

TABLE 6.4 Interaction effects of share-ownership coverage with 'manufacturing sector' on performance

Independent Variables and Interaction Terms	Economic Outcomes					
	Better than average financial performance			Better than average labour productivity		
	(1)	(2)	(3)	(4)	(5)	(6)
Constant	-.172	-.123	-.108	.082	.118	.131
	(-.891)	(-.640)	(-.563)	(.414)	(.598)	(.662)
Presence of share-ownership	.623***	.-	-	.426***	-	-
	(5.217)			(3.623)		
60-100% of the non-managerial employees are eligible for share-ownership (Hicover)	-	566***	-	-	.448***	-
		(4.262)			(3.371)	
60-100% of the non-managerial employees actually participate in the share-ownership (Hipart)	-	-	.381*	-	-	.683***
			(1.873)			(3.302)
Manufacturing sector (Secman)	.216	.196	.210	-.234	-.230	-.204
	(1.077)	(.987)	(1.052)	(-1.145)	(-1.129)	(-.997)
Empshare*Secman	-.190	-	-	-.547**		-
	(-.660)			(-2.023)		
Hicover*Secman	-	-.067	-	-	-.868***	-
		(-.199)			(-2.821)	
Hipart*Secman	-	-	.608	-	-	-1.595***
			(1.147)			(-3.725)
Industry controls	Yes	Yes	Yes	Yes	Yes	Yes
Establishment controls	Yes	Yes	Yes	Yes	Yes	Yes
Log Likelihood	-858.754	-862.008	-842.244	-840.716	-839.840	-810.923
Chi Squared	83.104	73.760	57.634	81.434	81.875	84.038
N	1329	1327	1284	1273	1272	1232

Notes: The estimating framework for generating the results is provided in Section 5.5.4.

(1) * Significant at 10% level , ** Significant at 5% level, *** Significant at 1% level. (2) a multiplied by 1000. (3) Binomial probit : maximum likelihood estimates

(4) Sectors include manufacturing sector, public administration, education, health, electricity, gas and water, construction, wholesale and retail, hotels and restaurant, transport and communication, financial services, other business services.

(5) The control variables used in the base regression equation have been included in the regression equation used for generating the above results. However, associations between the control variables and the performance outcomes are similar to that reported in the base regression equation. Hence, the results for the control variables are not displayed.

6.6 Share-ownership and participation in decision-making

There are three main issues that need to be explored with respect to share-ownership schemes and employee participation schemes. First, is the issue of attribution which debates whether the performance benefits are attributable to share-ownership schemes even when other employee participation schemes exist. Second, is the issue of heterogeneity of employee participation schemes and their varying effects on performance. Third, is the issue of interaction whereby the effect of 'bundling' together share-ownership schemes with employee participation schemes is debated.

6.6.1 The issue of attribution

Hypothesis 5 states that the positive and significant association between the presence of share-ownership and performance will remain unchanged even when participation in decision-making schemes are present. Table 6.5A summarises the relative associations of the three measures of share-ownership coverage and three types of participation in decision-making i.e. downward communication, upward problem-solving and representative participation.

Overall, the results presented in Table 6.5A suggest that the Hypothesis 5 is supported for both financial performance and labour productivity. These results, therefore, indicate that the favourable performance outcomes are attributable to share-ownership schemes.

When financial performance is used as a performance measure the results reveal that the original positive and highly significant (at the 1% level) association between the presence of share-ownership schemes and financial performance (Column '1' of Table 6.1) is not significantly altered upon the inclusion of the three participation in decision-making variables (Column '1' of Table 6.5A). Similarly, the previously reported positive and significant associations between majority share-ownership coverage and financial performance do not change significantly upon the inclusion of the participation in decision-making variables (Columns '2' and '3' of Table 6.5A).

Similar conclusions can be drawn when labour productivity is the measure of performance. The original positive and significant association (at the 1% level) between the presence of share-ownership schemes and labour productivity (Column '4' of Table 6.3) does not change on the inclusion of the participation in decision-making variables (Column '4' of Table 6.5A). Furthermore, no significant changes are observed in the original positive and significant associations between broad-based share-ownership coverage (Column '5' and '6' of Table 6.3) and labour productivity on introducing the participation in decision-making variables (Columns '5' and '6' of Table 6.5A).

These results are consistent with those of Kruse (1993) who found that the performance benefits attributable to profit-sharing and share-ownership schemes are independent of the existence of employee participation schemes. The independent effects of share-ownership and participation in decision-making relative to performance could be attributable to the fact that these schemes operate on different principles. Share-ownership schemes are fundamentally incentive schemes that seek to impact upon organisational performance by aligning employee interests with those of the organisation by promising a share in financial rewards of the company. Employee participation schemes, on the other hand, seek to improve performance through better flows of information and improvements in the quality of decision-making. Hence it is not surprising that the performance benefits attributable to share-ownership schemes are not diminished even when participation in decision-making schemes exist.

6.6.2 Relative effects on financial performance and labour productivity

Hypothesis 6 states that ESO schemes have a stronger positive association with financial performance and participation in decision-making has a stronger positive association with labour productivity.

The results summarised in Table 6.5A provide support for Hypothesis 6 only when financial performance is used as a performance measure. When financial performance is the dependent variable the presence of share-ownership has the strongest positive association with financial performance, in comparison to the participation in decision-

making schemes. For example, downward communication has a negative and significant association and representative participation has an insignificant association with financial performance (Column '1' of Table 6.5A). Even though upward problem-solving is positively and significantly associated with financial performance, the coefficient estimate is one-third of the coefficient estimate for the presence of share-ownership. Thus, share-ownership schemes have a stronger association with financial performance relative to the participation in decision-making schemes. Similarly, higher financial performance is observed for the majority-eligibility and majority-participation measures, in comparison to the participatory mechanisms (Columns '2', '3' of Table 6.5A).

In the case of labour productivity, the participation in decision-making schemes does not have a stronger association compared to the presence of share-ownership schemes. Indeed, both the presence of share-ownership schemes and upward problem-solving groups are positively and significantly (at the 1% level) associated with labour productivity. Though the former has a slightly lower coefficient estimate than the latter, the difference is marginal. In comparison, both downward communication schemes and representative participation have a negative and significant association with labour productivity. Therefore, with the exception of upward problem-solving groups, share-ownership schemes have higher labour productivity outcomes in comparison to the participation in decision-making schemes.

The results are not consistent with the findings of Fernie and Metcalf (1995) who found that employee participation schemes have higher labour productivity outcomes compared to share-ownership schemes. However, the findings are consistent with those of McNabb and Whitfield (1998), who suggested that share-ownership schemes are associated with higher financial performance outcomes compared to employee participation schemes.

The higher financial performance and labour productivity outcomes observed in share-ownership establishments could be attributed to the possibility that share-ownership schemes affect performance through various routes i.e. motivational routes, benefits from reduced employee turnover and possibly tax incentives. In comparison,

the lower labour productivity associated with employee participation schemes, such as downward communication and representative participation schemes is possibly a confirmation of the view that employees do not seek greater responsibility unless they are financially rewarded for it (Levine 1990). However, this argument does not explain why upward problem-solving schemes are associated with high labour productivity.

Another explanation for the lower levels of performance associated with representative participation and downward communication systems is that representative participation may slow down the decision-making process, thereby adversely impacting upon labour productivity. Furthermore, downward communication systems may result in an autocratic management. When autocratic management is adopted without consulting the employees, it may result in poor communication and subsequently poor organisational performance. Thus it challenges, the theory by Fernie and Metcalf (1995) that an autocratic management style is associated with higher performance. In comparison, upward problem-solving schemes allow employees to make concrete suggestions for solving problems closely related to their work. This approach may help resolve issues that could not be resolved by management, thereby improving labour productivity.

These observations provide support for Hypothesis 7 which states that participation in decision-making schemes are heterogeneous and different types of schemes yield varying performance outcomes.

The coefficient estimates for the control variables do not change significantly upon the inclusion of downward communication, upward problem-solving and representative participation to the original base regression equations estimating the link between the three measures of share-ownership coverage and performance in Table 6.4.

TABLE 6.5A Relative effects of Employee Share-Ownership schemes and employee participation schemes on performance

Independent Variables	Economic Outcomes					
	Better than average financial performance			Better than average labour productivity		
	(1)	(2)	(3)	(4)	(5)	(6)
Constant	.071	.106	.103	.186	.207	.209
	(.319)	(.477)	(.462)	(.809)	(.900)	(.899)
Presence of share-ownership	.576***	-	-	.285***	-	-
	(5.128)			(2.611)		
60-100% of the non-managerial employees are eligible for share-ownership (Hicover)	-	.534***	-	-	.251**	-
		(4.265)			(2.060)	
60-100% of the non-managerial employees actually participate in the share-ownership (Hipart)	-	-	.442**	-	-	.253
			(2.358)			(1.447)
Downward communication (Downward)	-.305***	-.302***	-.291***	-.209*	-.206*	-.207*
	(-2.627)	(-2.59)	(-2.488)	(-1.732)	(-1.711)	(-1.696)
Upward problem-solving (Upward)	.170**	.191**	.186**	.320***	.332***	.357***
	(2.101)	(2.369)	(2.281)	(3.875)	(4.037)	(4.277)
Representative participation (Djoint)	-.098	-.088	-.023	-.201**	-.198**	-.209**
	(-1.031)	(-.923)	(-.237)	(-2.082)	(-2.056)	(-2.137)
Industry controls	Yes	Yes	Yes	Yes	Yes	Yes
Establishment controls	Yes	Yes	Yes	Yes	Yes	Yes
Log Likelihood	-853.281	-856.081	-837.595	-833.292	-833.929	-807.628
Chi Squared	92.273	83.837	65.168	94.817	92.234	89.158
N	1328	1326	1283	1272	1271	1231

Notes: The estimating framework for generating the results is provided in Section 5.5.5.

(1) * Significant at 10% level , ** Significant at 5% level, *** Significant at 1% level. (2) a multiplied by 1000. (3) Binomial probit : maximum likelihood estimates

(4) Sectors include manufacturing sector, public administration, education, health, electricity, gas and water, construction, wholesale and retail, hotels and restaurant, transport and communication, financial services, other business services.

(5) Establishment controls: union presence, level of technology, establishment age, establishment size, market growth, market competition and establishment status.

(6) The control variables used in the base regression equation have been included in the regression equation used for generating the above results. However, associations between the control variables and the performance outcomes are similar to that reported in the base regression equation. Hence, the results for the control variables are not displayed.

6.6.3. Interaction effects

Hypothesis 8 states that when share-ownership schemes are introduced alongside certain types of formal participation in decision-making schemes higher performance outcomes are expected relative to the presence of share-ownership schemes alone. Table 6.6 B summarises the interaction effects for the presence of share-ownership schemes with the three types of employee participation schemes.

The results in Table 6.6B support Hypothesis 8 only in the productivity analysis. In case of financial performance, an insignificant interaction effect is observed for all three interaction terms (Columns '4' of Table 6.5B). This suggests that the combined effect of the presence of share-ownership with participation in decision-making schemes makes no difference to financial performance. Furthermore, the presence of share-ownership schemes is insignificantly associated with financial performance (Column '4' of Table 6.5B). This is predominantly attributable to the absence of downward communication schemes. The variable proxying the presence of share-ownership schemes loses its significance in the absence of downward communication schemes, whereas in the absence of upward problem-solving or representative participation the variable retains the positive and significant association with financial performance (Columns '1','2' and '3' of Table 6.5B). The results suggest that neither the presence of share-ownership schemes combined with participation in decision-making schemes nor share-ownership establishments without downward communications schemes show higher financial performance.

Some support for Hypothesis 8 is found for labour productivity, but only when participation in decision-making takes the form of downward communication schemes. The coefficient estimates for the interaction term based on the presence of share-ownership schemes with downward communication is positively and significantly associated with labour productivity (significant at the 1% level). In contrast, the coefficient estimates for the interaction term based on the presence of share-ownership schemes with upward problem-solving as well as the presence of share-ownership schemes with representative participation are insignificant (Column '8' of Table 6.5B). This suggests that when share-ownership schemes co-exist with

downward communication schemes the labour productivity is higher compared to when these schemes exist alongside other participation schemes such as upward-problem solving and representative participation schemes. Furthermore, on comparing the coefficient estimated of the interaction terms with that of the presence of share-ownership alone suggests that the higher productivity outcomes observed in share-ownership firms are attributable to the combined effect of share-ownership and downward communication schemes. Indeed, the results show that the presence of share-ownership alone has a negative and significant association with labour productivity (significant at the 1% level) (Column '8' of Table 6.5B). Thus suggesting that presence of share-ownership in a workplace can be associated with lower levels of labour productivity unless downward communication schemes exist.

However, the lower levels of labour productivity are predominantly attributable to the absence of downward communication schemes rather than the absence of upward problem-solving schemes or representative participation. This is evident from the results which show that the presence of share-ownership schemes in the absence of downward communication schemes is negatively and significantly associated with labour productivity (Column '5' of Table 6.5B). In comparison, the presence of share-ownership schemes in the absence of upward-problem solving or representative participation schemes has an insignificant association with labour productivity (Columns '6' and '7' of Table 6.5B).

Overall, the results suggest the presence of participation in decision-making does not appear to make a difference to the financial performance outcomes in share-ownership establishments. However, higher labour productivity in share-ownership establishments can be attributed to the combined effect of having share-ownership and downward communication schemes. Therefore, there is partial support for Hypothesis 8.

In the light of the results obtained certain issues need to be explained. First, why are the positive interaction effects evident only for labour productivity and not for financial performance? Second, why are the higher labour productivity outcomes observed predominantly when share-ownership schemes coexist with downward

communication schemes rather than upward problem-solving or representative participation? Third, why does the absence of downward communication schemes result in an insignificant association between share-ownership and financial performance even though the combined effect of the two is not associated with higher financial performance?

First, the positive and significant interaction coefficients for labour productivity and not financial performance could be attributed to two possibilities. Since, participation in decision-making schemes predominantly enhance performance by establishing a clearer line-of-sight between efforts and rewards, they are likely to have a more immediate impact upon labour productivity than on financial performance. However, increases in labour productivity may not necessarily translate into higher financial performance because there are various factors internal to and external to the organisation which affect financial performance outcomes. Fundamentally, labour productivity increases may often be at the expense of lower profitability (Freeman and Medoff 1984). Higher labour productivity is often accompanied by higher wages, which in turn reduces the profit margin.

Second, the result that higher labour productivity is observed only when share-ownership coexists with downward communication systems lends itself to several explanations. It could be argued that greater information-sharing enhances the effectiveness of the production process due to clearer goal-setting, lower monitoring costs and less reliance on informal mechanisms of communications such as rumours. Furthermore, having better communication systems in share-ownership establishments helps to improve labour-management relationships and fosters a co-operative culture which is perceived as a necessary condition for group-based incentive schemes to be successful (Appelbaum and Berg 2000 in Sesil et al. 2002). Specifically, greater co-operation would contribute positively towards the overall efficiency of the establishment by reducing resistance to change and eventually resulting in enhanced labour productivity (Conte and Svejnar 1990). Fundamentally, the observed beneficial effects of downward communication systems in share-ownership establishments reinforces the theory that the existence of proper channels of communication enhance productivity in share-ownership establishments by

establishing a clearer 'line-of-sight' between efforts and rewards (Section 4.6). However, the 'line-of-sight' argument does not explain why the higher labour productivity outcomes are not observed when share-ownership schemes coexist with formal participation in decision-making mechanisms, such as upward problem-solving and representative participation.

A possible explanation could be that share-ownership establishments may not have the necessary environment for participation in decision-making to yield the desired benefits. For, example if the share-ownership schemes widen the earnings differential between those who own shares and those who do not, then the introduction of share-ownership will not motivate the employees to be more committed and put in more effort and hence the performance benefits will not be realised (Levine 1990).

An alternative explanation could be found in Hammer and Stern's (1981) argument that employee share-owners seek to be well informed about their establishment, but do not necessarily want participation in decision-making. They argued that employee-owners act like investors and prefer to delegate the authority to management. Another possible explanation could be that formal participation in participation in decision-making will not establish a clearer 'line-of-sight' between efforts and rewards unless these mechanisms truly allow employees greater influence in decision-making. It is argued that the presence of formal participation in decision-making mechanisms does not guarantee its implementation (Kruse 1984). Studies which found that the presence of participation in decision-making makes no difference to the performance outcomes in the share-ownership establishments attributed these results to the divorce between the presence of participatory mechanisms and their actual implementation (Kruse 1993; Long 1978). In fact, evidence shows that employee-owners have little or no impact upon decision-making in their firms (Blasi and Kruse 1991; Kaufman and Russell 1995; Russell 1989).

Third, the results show that share-ownership schemes combined with downward communication have an insignificant association with financial performance and that an insignificant association is also observed when share-ownership schemes exist in the absence of downward communication schemes. These results suggest that downward communications schemes are a hygiene factor whereby their presence does

not necessarily enhance levels of financial performance, but their absence prevents share-ownership schemes from being associated with positive performance outcomes. It could be that, in the absence of downward communication systems, share-ownership schemes would not be able to establish a clear 'line-of-sight' between effort and financial rewards, thereby making it difficult for share-ownership schemes to yield financial performance benefits. Furthermore, when downward communication schemes are present, they may primarily impact upon labour productivity, and have an indirect effect upon financial performance. Therefore, the combined effect of ESO schemes combined with downward communication on financial performance does not result in visibly higher financial performance outcomes. Another explanation can be a statistical one. Cross-tabulations show that 96.5% of the establishments with share-ownership schemes also have downward communication systems therefore, only 3.5% of the share-ownership establishments will be without downward communication schemes. In other words, only 7 establishments have share-ownership but do not have downward communication systems in a sample size of 219 establishments with some form of share-ownership schemes. Hence, the cells are too small for conducting a meaningful analysis and this could explain a loss of significance.

TABLE 6.5B Interaction effects of share-ownership presence with employee participation schemes on performance

Independent Variables and Interaction Terms	Economic Outcomes							
	Better than average financial performance				Better than average labour productivity			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Constant	.076	.090	.069	.080	.397*	.224	.205	.399*
	(.338)	(.406)	(.310)	(.355)	(1.684)	(.968)	(.888)	(1.694)
Presence of share-ownership	.509	.373**	.589***	.492	-1.665***	.037	.172	-1.670***
	(1.188)	(2.027)	(4.577)	(1.150)	(-3.504)	(.208)	(1.382)	(-3.512)
Downward communication (Downward)	-.310***	-.303***	-.305***	-.295***	-.382***	-.215*	-.213*	-.381***
	(-2.597)	(-2.607)	(-2.626)	(-2.458)	(-3.005)	(-1.775)	(-1.757)	(-2.977)
Upward problem-solving (Upward)	.170**	.130	.170**	.123	.288***	.262***	.329***	.303***
	(2.087)	(1.493)	(2.091)	(1.412)	(3.474)	(2.966)	(3.972)	(3.375)
Representative participation (Djoint)	-.098	-.096	-.088	-.073	-.207**	-.195**	-.291***	-.265**
	(-1.034)	(-1.013)	(-.841)	(-.691)	(-2.143)	(-2.023)	(-2.699)	(-2.432)
Empshare*Downward	.071	-	-	-.125	2.104***	-	-	2.07***
	(.162)			(-.268)	(4.324)			(4.050)
Empshare*Upward	-	.306	-	.350	-	.383*	-	-.057
		(1.383)		(1.471)		(1.788)		(-.243)
Empshare*Djoint	-	-	-.048	-.116	-	-	.430*	.273
			(-.211)	(-.492)			(1.888)	(1.161)
Industry controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Establishment controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Log Likelihood	-853.268	-852.330	-853.260	-852.163	-820.792	-831.687	-831.499	-820.116
Chi Squared	92.299	94.180	92.318	94.510	119.82	98.026	98.403	121.169
N	1328	1328	1328	1328	1272	1272	1272	1272

Notes: The estimating framework for generating the results is provided in Section 5.5.5.

(1) * Significant at 10% level , ** Significant at 5% level, *** Significant at 1% level. (2) a multiplied by 1000. (3) Binomial probit : maximum likelihood estimate

(4) Sectors include manufacturing sector, public administration, education, health, electricity, gas and water, construction, wholesale and retail, hotels and restaurant, transport and communication, financial services, other business services.

(5) Establishment controls: union presence, level of technology, establishment age, establishment size, market growth, market competition and establishment status.

(6) The control variables used in the base regression equation have been included in the regression equation used for generating the above results. However, associations between the control variables and the performance outcomes are similar to that reported in the base regression equation. Hence, the results for the control variables are not displayed.

6.6.4 Interaction effects: Share-ownership coverage and participation

It is expected that the positive effects of combining share ownership and participation in decision-making are even higher when a majority of the employees own shares. This expectation follows from Hypothesis 15, which states that, when majority-participation in share-ownership schemes coexists with formal employee participation schemes the performance outcomes are higher than when majority-eligibility or the presence of share-ownership schemes co-exists with employee participation. The results for the interaction effects for the three measures of share-ownership coverage with different participation in decision-making schemes are provided in Table 6.5C.

The results summarised in Table 6.5C show that when financial performance is the dependent variable, the results do not lend support to Hypothesis 15. However, weak support exists for Hypothesis 15 when performance is measured in terms of labour productivity. None of the coefficients on the interaction terms based on the different measures of share-ownership coverage and the different types participation in decision-making (downward communication, upward problem-solving and representative participation) reach significance (see Table 6.5C, Columns '1', '2' and '3'). Therefore, the results suggest that the share-ownership coverage does not appear to make a difference to the effectiveness of participatory mechanisms in share-ownership establishments.

The results change when using labour productivity as a performance measure. The combination of downward communication with the three measures of share-ownership coverage is highly significant (at the 1% level), in all cases. Furthermore, the coefficient estimate for the interaction term based on majority-participation and downward communication is slightly larger than the coefficients for similar interaction terms based on majority-eligibility and the presence of share-ownership. However, Hypothesis 15 is not supported when other forms of participation in decision-making are considered. For example, insignificant interaction effects are observed when share-ownership (irrespective of coverage) is combined with upward problem-solving schemes (Columns '4', '5' and '6' of Table 6.5C). Insignificant interaction effects are also observed when share-ownership presence and majority-participation in share-ownership are combined with representative participation. The

only exception is the interaction term based on majority-eligibility and representative participation. It has a positive and significant (at the 10% level) association with labour productivity and the coefficient estimate for this interaction term is nearly twice that of the presence of share-ownership schemes combined with representative participation and almost four times higher than when majority-participation coexists with representative participation.

Overall, the results reveal that there is some support for Hypothesis 15 when labour productivity is used as a performance measure and participation in decision-making takes the form of downward communication schemes. In principle, the results are consistent with previous studies which found that broad-based share-ownership establishments that have participation in decision-making schemes and good communication systems have high labour productivity outcomes (Bradley et al. 1990; Ramsay et al 1989; Rosen 1990; Goldstein 1978 and Long 1980). However, the results obtained in Table 6.5C introduce certain dimensions that have been previously unexplored. For example, the results propose a contingency argument which suggests that the positive interaction effects of broad-based coverage will be evident only for certain forms of participation in decision-making and certain measures of organisational performance.

The results summarised in Table 6.5C are similar to those obtained for the interaction between the presence of share-ownership schemes and each of the three measures of participation in decision-making (Table 6.5B). Hence, similar arguments can be used to explain why the positive interaction effects are evident only for labour productivity and downward communication schemes. For example, the higher labour productivity outcomes can be attributed to the possibility that employee participation schemes have a stronger and more direct impact upon labour productivity rather than on financial performance.

The positive interaction effects for downward communication rather than for upward problem-solving and representative participation could be explained using Hammer and Stern's (1981) argument that employee-owners act like investors. Hence, they seek the benefits of greater information-sharing so as to increase productive efficiency but may not want greater involvement in decision-making and prefer to leave the

decision-making to experts. Greater information-sharing and access to relevant information may provide the employees with the feedback necessary for monitoring their own progress against that of the organisation, and thereby improve labour-management relations. This is likely to positively affect efficiency and labour productivity. Furthermore, the 'free-rider' problems associated with broad-based share-ownership schemes are unlikely to exist when there is greater transparency and a co-operative culture in the share-ownership establishment. The productivity benefits are likely to be more widespread when a majority of the employees own shares and have access to relevant information. This could also explain why the labour productivity outcomes are slightly higher for share-ownership establishments that have majority-ownership and downward communication systems. The insignificant interaction effects for upward problem-solving and representative participation could also be explained by Kruse's (1993) argument that even if formal participatory mechanisms exist, employee participation may not be practiced.

It follows from the results that in the absence of good communication facilities, the free-rider problem will persist. This may contribute to the lower levels of labour productivity observed in share-ownership establishments that do not have downward communication facilities. However, the lack of proper communication facilities in broad-based share-ownership establishments is not associated with lower financial performance. Instead, positive financial performance is observed, possibly attributable to the substantial tax-benefits and leveraging facilities prevalent in broad-based share-ownership establishments.

The observation that share-ownership establishments with representative participation report a significant improvement in the productivity levels only for the majority-eligibility variable but not for the majority-participation variable is difficult to explain. It could be that, when a majority of the employees are eligible, and they also have representative participation, employees feel that they are partners in the business in terms of sharing financial rewards as well as being consulted in the decision-making process. Thus employees may have a positive view of management and might have a positive effect on labour productivity. However, this view is likely to change

when employees own shares, since they may think more like investors and perceive it to be in the interests of their financial well-being to leave joint consultative activities to experts. This could explain why the combined effect of majority-ownership and representative participation does not yield higher labour productivity outcomes. However, these arguments do not seem to explain why higher labour productivity is observed when majority-eligibility coexists with upward problem-solving (Column '5' of Table 6.5C).

The coefficient estimates for the control variables do not change significantly even when the interaction terms based upon the three measures of share-ownership coverage and the three types of participation in decision–making schemes are included in the base regression equations estimated in Table 6.5A.

TABLE 6.5C Interaction effects for share-ownership coverage with employee participation on performance

Independent Variables	Economic Outcomes					
	Better than average financial performance			Better than average labour productivity		
	(1)	(2)	(3)	(4)	(5)	(6)
Constant	.080	.077	.082	.399*	.421*	.417*
	(.355)	(.345)	(.363)	(1.694)	(1.790)	(1.759)
Presence of share-ownership (Empshare)	.492			-1.670***		
	(1.150)			(-3.512)		
60-100% of the non-managerial employees are eligible		1.118*			-2.456***	
for share-ownership (Hicover)		(1.794)			(-3.132)	
60-100% of the non-managerial employees actually			1.091*			-2.385***
participate in the share-ownership (Hipart)			(1.761)			(-3.007)
Downward communication (Downward)	-.295***	-.259**	-.256**	-.381***	-.373***	-.378***
	(-2.458)	(-2.168)	(-2.143)	(-2.977)	(-2.923)	(-2.964)
Upward problem-solving (Upward)	.123	.161**	.190**	.303***	.302***	.344***
	(1.412)	(1.893)	(2.289)	(3.375)	(3.459)	(4.034)
Representative participation (Djoint)	-.073	-.116	-.057	-.265**	-.272***	-.210**
	(-.691)	(-1.134)	(-.577)	(-2.432)	(-2.579)	(-2.083)
Empshare/Hicover/Hipart*Downward	-.125	-.958	-1.002	2.07***	2.714***	3.431***
	(-.268)	(-1.467)	(-1.448)	(4.050)	(3.329)	(3.906)
Empshare/Hicover/Hipart *Upward	.350	.384	.063	-.057	.085	-.405
	(1.471)	(1.426)	(.147)	(-.243)	(.311)	(-.861)
Empshare/Hicover/Hipart *Djoint	-.116	.226	.731	.273	.447*	-.053
	(-.492)	(.852)	(1.629)	(1.161)	(1.685)	(-.117)
Industry controls	Yes	Yes	Yes	Yes	Yes	Yes
Establishment controls	Yes	Yes	Yes	Yes	Yes	Yes
Log Likelihood	-852.163	-853.814	-835.169	-820.116	-817.102	-791.074
Chi Squared	94.510	88.371	70.019	121.169	125.886	122.267
N	1328	1326	1283	1272	1271	1231

Notes: The estimating framework for generating the results is provided in Section 5.5.5.

(1) * Significant at 10% level , ** Significant at 5% level, *** Significant at 1% level. (2) a multiplied by 1000. (3) Binomial probit: maximum likelihood estimate

(4) Sectors include manufacturing sector, public administration, education, health, electricity, gas and water, construction, wholesale and retail, hotels and restaurant, transport and communication, financial services, other business services.

(5) Establishment controls: union presence, level of technology, establishment age, establishment size, market growth, market competition and establishment status.

(6) The control variables used in the base regression equation have been included in the regression equation used for generating the above results. However, associations between the control variables and the performance outcomes are similar to that reported in the base regression equation. Hence, the results for the control variables are not displayed.

6.7 The interaction effect: share-ownership coverage and trade unions

Hypothesis 4 states that share-ownership schemes introduced in unionised establishments have a stronger positive association with labour productivity. Furthermore, Hypothesis 14 suggests that when a unionised share-ownership establishment has majority-participation in share-ownership it is associated with stronger performance outcomes as opposed to unionised establishments with majority-eligibility or where some form of share-ownership schemes are present. The results for the interaction analyses involving various measures of share-ownership coverage and trade unions are presented in Table 6.6.

The results summarised in Table 6.7 show that there is no support for Hypothesis 4 when financial performance is used as a performance measure, but the hypothesis is supported when using labour productivity as a performance measure. The results show that the interaction term based on the presence of share-ownership schemes and trade union recognition has an insignificant association with financial performance. The original association between the presence of share-ownership schemes and financial performance (Column '1' of Table 6.1) does not change significantly upon introducing the interaction term. Therefore, it could be deduced that, whether share-ownership schemes are introduced in unionised or non-unionised establishments, financial performance outcomes are not affected. In contrast, the results for labour productivity show that the coefficient estimates for the interaction term based on the presence of share-ownership schemes and trade union recognition is positive and significant (at the 5% level, Column '4' of Table 6.6). Furthermore, the relationship between the presence of share-ownership schemes and labour productivity changes from being positive and significant (Column '2' of Table 6.1) to insignificant upon the inclusion of the interaction term (Column '4' of Table 6.6). Thus, the results suggest that share-ownership establishments with a recognised trade union have higher labour productivity relative to non-unionised- share-ownership establishments.

Similarly, Hypothesis 14 is not supported when financial performance is the dependent variable, but receives some support for labour productivity. The results in

Table 6.6 show that the interaction term for all three measures of share-ownership coverage and trade union recognition have a positive but insignificant association with financial performance (Columns '1', '2' and '3' of Table 6.6). Hence, irrespective of the measure of share-ownership coverage, the presence of a recognised union does not impact upon the financial performance in share-ownership establishments.

In contrast, when labour productivity is the dependent variable, share ownership coverage does make a difference to the labour productivity outcomes in the unionised-share-ownership establishments. For example, the coefficient estimate for the interaction term based on majority-participation (Column '6' of Table 6.6) is twice the size of the coefficient estimate for the interaction term based on the presence of share-ownership schemes (Column '4' of Table 6.6). This result indicates that the unionised- share-ownership establishments with a majority of the employees owning shares have higher labour productivity outcomes compared to those where share-ownership schemes are present, irrespective of coverage. The interaction term based on majority-participation has a higher coefficient estimate, but a less significant association with labour productivity compared to the interaction term based on majority-eligibility (Columns '5' and '6' of Table 6.6). Therefore, the results appear to suggest that whether share-ownership coverage exists in terms of majority-eligibility or majority-participation, it does not make a significant difference to labour productivity in unionised-share-ownership establishments. Therefore, these results provide mixed support for Hypothesis 14.

The positive labour productivity in the unionised- share-ownership establishments could be explained with the help of Freeman and Medoff's (1984) exit-voice hypothesis and the 'golden handcuff' theory. The exit-voice hypothesis suggests that trade union establishments provide employees with a channel for expressing their grievances and hence employees are less likely to show dissatisfaction by quitting the organisation. The 'golden handcuff' theory suggests that the financial rewards associated with share ownership increases the opportunity cost of quitting the firm and thereby influencing the employees to remain. The dual effects of giving

employees a voice and the promise of financial rewards are reduced employee turnover and a more stable labour-management relationship. These outcomes would positively affect productive efficiency and labour productivity (Richardson and Nejad 1986 and Conte and Svejnar 1990). The higher labour productivity outcome could also be explained by using the argument that unionised establishments are more participative in nature (Pendleton et al. 1995). Hence the benefits of 'bundling' together share-ownership and employee participation can be realised in the unionised-share-ownership establishments.

Furthermore, unionised-share-ownership establishments with broad-based share-ownership appear to have a stronger effect upon labour productivity in comparison to other share-ownership establishments with broad-based share-ownership (see Table 6.3). A possible interpretation could be that the beneficial effects of broad-based share-ownership schemes can be realised mainly in a unionised- share-ownership establishment. This may be because, when a majority of the employees own shares and they also have a voice through trade union recognition, the management may actually recognise employees as owners and be more willing to share information and allow for greater employee participation. Thus, participation in decision-making in the true sense is more likely to exist in unionised establishments with majority coverage. Consequently, the combined benefits of majority-ownership and participation in decision-making are more likely to be realised in these establishments, possibly due to a clearer connection between collective efforts and rewards and the absence of a free-rider problem.

However the beneficial performance effects are evident only in the case of labour productivity but not for financial performance. The lack of higher financial performance outcomes draw attention to Freeman and Medoff's (1984) wage efficiency argument which suggests that the improvements in labour productivity in unionised establishments are often accompanied with increases in labour costs. Specifically, the presence of trade unions may be concurrent with higher wages. In case of share-ownership establishments the 'golden handcuff' effect is achieved by making the schemes financially lucrative to the employees. While the share-

ownership firms cannot guarantee a higher market price for shares they ensure that the employees buy the shares at a price lower that in the market i.e. the exercise price. The difference between the exercise price and the market price is borne by the firms and constitutes the cost involved in making the schemes financially lucrative (Richardson and Barnes 1991). The insignificant effect on financial performance could indicate that higher productivity fails to translate into higher profitability. Higher labour costs reduce the profit margin. Hence, enhanced labour productivity in share-ownership establishments is not accompanied by similar improvements in financial performance.

No significant changes are observed for the control variables upon inclusion of the interaction terms based on trade union recognition and the three measures of share-ownership coverage, thereby, confirming the robustness of the base regression equations.

TABLE 6.6 Interaction effects for share-ownership coverage with presence of a union on performance

Independent Variables	Economic Outcomes					
	Better than average financial performance			Better than average labour productivity		
	(1)	(2)	(3)	(4)	(5)	(6)
Constant	-.160	-0.106	-0.095	0.110	0.144	0.157
	(-0.826)	(-0.551)	(-0.494)	(0.550)	(0.723)	(0.785)
Presence of share-ownership	0.519***			0.185		
	(3.977)			(1.453)		
60-100% of the non-managerial employees are		0.415***			0.066	
eligible for share-ownership (Hicover)		(2.707)			(0.437)	
60-100% of the non-managerial employees			0.358			0.569
actually participate in the share-ownership			(1.522)			(0.026)
(Hipart)						
Union Recognition	-0.194**	-0.236**	-0.217**	-0.078	-0.099	-0.033
	(-1.976)	(-2.432)	(-2.282)	(-.782)	(-1.008)	(-0.338)
Share-ownership*Recognised union	0.234	0.362	0.313	0.464**	0.581***	0.814**
	(1.044)	(1.506)	(0.831)	(2.137)	(2.481)	(2.234)
Industry controls	Yes	Yes	Yes	Yes	Yes	Yes
Establishment controls	Yes	Yes	Yes	Yes	Yes	Yes
Log Likelihood	-858.423	-860.890	-842.619	-840.471	-840.790	-815.895
Chi Squared	83.767	75.997	56.882	81.925	79.974	74.095
N	1329	1327	1284	1273	1272	1232

Notes : The estimating framework for generating the results is provided in Section 5.5.6.

(1) * Significant at 10% level , ** Significant at 5% level, *** Significant at 1% level. (2) [a] multiplied by 1000. (3) Binomial probit: maximum likelihood estimate

(4) Sectors include manufacturing sector, public administration, education, health, electricity, gas and water, construction, wholesale and retail, hotels and restaurant, transport and communication, financial services, other business services.

(5) Establishment controls: union presence, level of technology, establishment age, establishment size, market growth, market competition and establishment status.

(6) The control variables used in the base regression equation have been included in the regression equation used for generating the above results. However, associations between the control variables and the performance outcomes are similar to that reported in the base regression equation. Hence, the results for the control variables are not displayed.

6.8 Conclusion

Overall, the results are largely supportive of the view that share-ownership schemes are associated with higher financial performance and labour productivity. Indeed, these positive and significant associations persist even on controlling for the impact of other financial participation schemes and participation in decision-making schemes. Therefore, the results are consistent with a large number of studies that found that share-ownership schemes are associated with higher performance. In so doing, they also suggest that the UK experience appears to be similar to the US experience.

However, the results differ slightly from the view that share-ownership *per se* is a sufficient condition for generating high levels of performance (Rosen 1990; Rosen and Quarrey 1987). Instead, the results provide support for a contingency argument which suggests that a certain set of conditions need to be fulfilled for share-ownership schemes to yield the desired performance outcomes (Blair and Kruse 1999; Conte and Svejnar 1990; Kaufman and Russell 1995; Klein 1987).

For example, the results suggest that when share-ownership schemes coexist with Profit-Related Pay, higher financial performance is observed. Furthermore, when share-ownership schemes are introduced in the non-manufacturing sector or establishments with a recognised union, higher labour productivity is observed. Similarly, share-ownership establishments that have formal downward communication systems also appear to have higher levels of labour productivity. Conversely, share-ownership establishments are associated with lower levels of labour productivity in the absence of downward communication systems. Contrary to expectations, the performance outcomes are not affected by the proportion of employees covered by the scheme. The only exceptions are share-ownership establishments that are unionised or exist in the non-manufacturing sector.

The contingency argument also applies to the performance measures whereby the association between share-ownership and performance varies depending upon whether it is financial performance or labour productivity. For example, Profit-Related Pay combined with share-ownership schemes are associated with higher

levels of financial performance, but lower levels of labour productivity. Furthermore, the nature of the industry, the presence of recognised trade unions and certain types of participation schemes such as downward communication and (at times) representative participation schemes have a stronger association with labour productivity, while they seem to make little difference to financial performance outcomes.

On the whole, the findings suggest that the strength of the share-ownership and performance relationship is influenced by a combination of factors. These include the nature of industry, the presence of effective communication systems, existence of a recognised trade union, other financial participation schemes and, to a certain extent, the proportion of non-managerial employees covered by the scheme. Fundamentally, the results confirm the view that share-ownership schemes are associated with higher financial performance and labour productivity. Having established the strength and nature of the relationship between share-ownership and performance in this chapter, the Chapter 7 will explore the mechanisms through which share-ownership schemes are likely to influence organisational performance.

Chapter 7

Employee Share-Ownership, Affective Commitment and Employee Turnover

7.1 Introduction

The analysis in Chapter 6 indicated that share-ownership schemes are associated with higher financial performance and labour productivity. This raises questions as to how this outcome is achieved. The popular view is that share-ownership schemes impact upon performance through higher organisational commitment. The less dominant position is that share-ownership schemes act as 'golden handcuffs' and hence yield higher performance by reducing employee turnover (Blair and Kruse 1999; Conte and Kruse 1991; Richardson and Nejad 1986; Wilson et al. 1990). While the 'golden handcuff' theory has theoretical acceptance, it remains largely untested. The only study that attempted to validate this theory focused solely on the effect of Employee Share-Ownership (ESO) schemes on employee turnover rather than testing the entire link between ESO schemes, reduced employee turnover and improved organisational performance (Wilson et al. 1990).

This chapter tests these claims by investigating the nature and strength of the relationship between share-ownership and affective commitment. This is achieved by testing the hypotheses that emerge from a critical evaluation of previous literature on share-ownership, commitment and employee turnover in Chapter 3. The results pertaining to the hypotheses are interpreted and analysed using the theoretical model developed in Chapter 4 and the findings of previous studies on share-ownership and commitment. The alternative view emphasising the role of employee turnover for enhanced organisational performance is also tested. The conclusion summarises the overall results and discusses the key findings within the broad context of the share-ownership, affective commitment, turnover and organisational performance.

7.2 The presence of Employee Share-Ownership schemes

Hypothesis 17 states that the presence of share-ownership schemes at a workplace makes employees more committed to the establishment they work for. The results of the basic test of this hypothesis are presented in Table 7.2.

The results in Table 7.1A contradict Hypothesis 17. The results show a negative and significant association (at the 1% level) between the presence of share-ownership and commitment with the coefficient estimate taking a value of -0.086. This result suggests that employees in ESO (Employee Share-Ownership) establishments show lower levels of affective commitment compared to employees in non-share-ownership establishments.

There can be two interpretations of the above result. One is that ESO schemes reduce commitment levels. Alternatively, it could be indicative of a situation where establishments with poor commitment levels are inclined to adopt ESO schemes. The former is more likely since there is a strong theoretical argument as well as empirical evidence in favour of this interpretation. The theoretical argument suggests that share-ownership schemes contribute to commitment rather than vice versa (Dunn et al. 1991). This theoretical premise is supported by evidence from longitudinal analysis suggesting that commitment or employee attitudes do not necessarily determine the adoption of a share-ownership scheme (Dewe et al. 1988 and Dunn et al. 1991; Keef 1998). Instead, there is evidence from longitudinal studies to suggest that share-ownership schemes are an antecedent to commitment (Buchko1992; Tucker et al. 1989). The negative and significant association between share-ownership and performance can therefore indicate that share-ownership schemes contribute to lower commitment levels. This interpretation of the result casts doubt on the theory that the presence of share-ownership schemes at a workplace contributes to higher levels of commitment, thereby providing little support for Klein's (1987) intrinsic satisfaction model.

TABLE 7.1A Share-ownership presence and affective commitment

Independent and Control variables	Affective commitment	
	Coefficient estimate	T statistic
Constant	2.098	24.832
Presence of share-ownership	-.086	-3.443***
Sex of employee: Male	-.014	-.698
Ethnic group		
Black	.114	1.441
Asian	.279	3.831***
Chinese	.354	1.113
Age of employee		
20-24 yrs	-.036	-.647
25-29 yrs	-.118	-2.156**
30-39 yrs	-.099	-1.852*
40-49yrs	.076	1.383
50-59yrs	.249	4.379***
60 yrs or more	.473	6.569***
Marital status: Married	.087	4.116***
Job Tenure		
1 to less than 2yrs	-.051	-1.491
2 to less than 5 yrs	-.085	-2.837***
5 to less than 10 yrs	-.073	-2.312**
More than 10 yrs	-.023	-.724
Educational qualifications		
ALEVEL	.028	1.009
OLEVEL	.082	3.408***
CSE	.090	2.972***
NVQ (vocational)	-.017	-.917
Occupation		
Professional	-.171	-5.266***
Associate professional	-.211	-6.041***
Craft and skilled service	-.223	-6.428***
Clerical and secretarial	-.203	-6.525***
Sales	-.016	-.394
Line and assembly	-.174	-4.911***
Trade union membership	-.160	-6.670***
Nature of job		
Temporary job	-.089	-1.761*
Fixed term contract	-.137	-2.334**
Gender orientation of work		
Female work	.014	.554
Male work	-.172	-7.115***
Gross yearly Wage level		
Above £18,721	.290	11.837***
Between £7,281 - £ 9,360	-.076	-2.995***
Industry Controls: Sectors		
Manufacturing	-.242	-4.772***
Electricity and Gas	-.046	-.676
Water and Construction	-.046	-.752
Wholesale and Retail	-.046	-.849
Hotels and restaurant	-.041	-.639
Transport and communication	-.238	-4.122***
Financial services	-.191	-3.135***
Other business services	-.071	-1.323
Public administration	-.025	-.379
Education	.120	2.167**
Health and community service	.030	.560
Establishment size		

Independent and Control variables	Affective commitment Coefficient estimate	T statistic
10,000 plus	-.011	-.428
Less than 200	.022	.785
Market Characteristics		
High level of competition	.018	.877
International product market	.058	2.206**
Growing market	-.0017	-.090
Above 26% UK market share	-.023	-1.112
Communication systems		
Joint consultation	-.054	-2.782***
Team briefing	.043	1.392
Quality circles	.059	3.066***
Ownership status		
Private sector	.112	3.075***
Foreign ownership; part/full	-.023	-.818
Single independent UK estb.	.014	.512
Age of establishment	.406[a]	1.725*
Recognised union	-.014	-.542
Log likelihood function	-18799.56	
Chi-squared	1033.963	
N	14960	

Notes: The estimating framework for generating the results is provided in Section 5.7.1

(1) * Significant at 10% level, ** Significant at 5% level, *** Significant at 1% level.

(2) [a] multiplied by 1000. (3) Ordered probit: maximum likelihood estimates

(4) Omitted categories for Controls are *Sex*: Female; *Ethnic group*: White and other ethnic groups; *Age of employee*: less than 20 years; *Marital Status*: Single, Divorced or Widow; *Job tenure*: less than 1 year; *Educational Qualifications*: Degree and Postgraduate degree or equivalent; *Occupation*: Managers and senior administrators; *Nature of job*: Permanent contract; *Gender orientation of work*: Equally by men and women; *Gross yearly wage level*: above the range of £9,361 and below the range of £16,121-£18,720 per year before tax; *Industry Controls*: Other community services; *Establishment size*: Above 200 employees and less than 10,000 employees; *Market Characteristics*: Low or medium level of competition; Market for the product is Local, Regional or national; Market is not growing; Market share is below 26%;*Communication systems*: *Establishment status*: Fully Private sector; UK owned or predominantly UK owned; Single UK branch of a foreign establishment or one of a number of establishments within a larger organisation.

The results are not consistent with a large number of previous studies which report higher commitment levels associated with ESO schemes (Long 1978; Pendleton 2001; Pendleton et al. 1998; Jochim 1979; Wallace and Hanson 1984; Oliver 1984; Bell and Hanson 1989; Marsh and McAllister 1981; Russell et al. 1979; Rhodes and Steers 1981; Poole and Jenkins 1990; Long 1980; Buchko1992; Goldstein 1978; Tucker et al. 1989). However, the results are consistent with a number of longitudinal studies which report that the presence of share-ownership schemes often contribute to reduced levels of commitment in the long run (Kruse 1984; Long 1982; Keef 1998; the NCEO 1982a).

There can be several explanations for the reported negative and significant association between the presence of share-ownership schemes at a workplace and affective commitment. First, it may be that share-ownership schemes are viewed negatively by the employees and they dislike these schemes. Hence, when these schemes are introduced, affective commitment levels drop. However, research on employee attitudes towards the schemes report that the employees generally view these schemes favourably (Hyman et al. 1989; Poole and Jenkins 1990; Bell and Hanson 1989; Wilkinson et al. 1994).

Second, the lower levels of commitment observed in these establishments may be attributable to non-share-owners rather than the share-owners. This is plausible since most share-ownership establishments consist of employee-owners and non-employee owners. A large proportion of the share-ownership establishments (36%) have less than 60% of the employees owning shares in the sample under consideration. Therefore, the proportion of non-share-owners in share-ownership establishments is likely to be quite significant. Furthermore, lower levels of commitment are observed in share-ownership establishments that have a high proportion of employees who do not own shares relative to those share-ownership establishments that have a high proportion of employee-owners. This is evident from the results summarised in Table 7.1B wherein the share-ownership establishments are disaggregated into those that have majority-ownership (60-100%) and those with minority ownership (1-39%). The results in Table 7.1B show that a negative and significant association (at the 1% level) with affective commitment exists for share-ownership establishments where only 1-

39% of non-managerial employees own shares. This suggests that lower levels of affective commitment are shown by the employees in share-ownership establishments where only a small proportion of employees own shares and a comparatively large proportion of employees do not. In contrast, an insignificant association exists for majority-ownership and affective commitment. This suggests that employees in share-ownership establishments where most of the employees are employee-owners do not appear to show any alteration of their commitment levels. Ideally, a comparison would be made between share-ownership establishments that have 100% employee-ownership and those that have no employee-owners. However, while 79 share-ownership establishments had 100% employee-ownership only 8 share-ownership establishments did not have any employee-owners. Thus the sample size for the latter was too small to draw any meaningful conclusions. A feasible option is to compare commitment levels in share-ownership establishments with majority-ownership and those that have minority ownership. It could be inferred from these results that the lower levels of commitment in the share-ownership establishments are primarily attributable to the commitment levels of the non-share-owners.

However, non-share-owners can consist of those employees who were eligible but chose not to join or those who were not eligible. It is unlikely that the results are influenced by those non-share-owners who were not eligible, since 92% of the share-ownership establishments allow a majority (60-100%) of the non managerial employees to participate in these schemes. In fact 71% of share-ownership establishments allow all of their non-managerial employees to participate in these schemes. Therefore, it is likely that the lower levels of commitment reflect the attitudes of those employees who are eligible for ESO schemes but do not participate in them. Indeed, the results show that only half of the share-ownership establishments that offered these schemes to a majority of the employees made a transition to majority-ownership. Similarly, only half of those establishments that covered all their employees converted to 100% employee-ownership. Therefore, a considerable proportion of the sample of non-joiners consists of employees that had the option to participate in the share-ownership scheme but chose not to join.

Previous research has shown that the decision to join is influenced by financial considerations such as affordability and the financial worth of the schemes, rather

than employee commitment to the organisation (Dewe et al. 1988; Dunn et al. 1991). Dissatisfaction with the terms and conditions offered by the schemes is likely to cause disillusion amongst the eligible employees, since they may perceive the schemes as an act of hypocrisy on the part of management. Furthermore, they may perceive that there is a lack of managerial support, and this may translate into lower levels of affective commitment amongst the non-share-owners, (Klein and Hall 1988; Klein 1987; Meyer et al. 2002) thus explaining the lower levels of commitment observed at workplaces where ESO (Employee Share-Ownership) schemes are present. Since, majority-participation is an indication of the financial worth of the scheme, the lack of negative commitment levels observed in share-ownership establishments with majority-ownership may be attributable to financial aspirations being better fulfilled in these establishments. Possibly, the aspirations with regard to participation in decision-making would be better fulfilled if share-ownership establishments allowed for participatory rights and only then would higher levels of commitment be observed.

TABLE 7.1B Majority-ownership versus minority ownership

Independent and Control Variables	Affective commitment	
	Coefficient estimate	T statistic
Constant	2.093	24.330
Majority-participation (60-100% ownership)	-.025	-.727
Minority participation (0-59% ownership)	-0.75	-2.319**
Individual Controls	Yes	Yes
Industry controls	Yes	Yes
Establishment Controls	Yes	Yes
Log likelihood function	-18099.15	
Chi-squared	991.5283	
N	14420	

Notes:

(1) * Significant at 10% level , ** Significant at 5% level, *** Significant at 1% level.

(2) [a] multiplied by 1000. (3) Ordered probit: maximum likelihood estimates

Third, the lower levels of affective commitment in establishments with minority ownership could also be explained by applying expectancy theory. The lower levels of affective commitment may be attributed to the inability of the share-ownership schemes to establish a clear 'line-of-sight' between ownership of shares, the efforts of employee-owners and the subsequent financial rewards associated with share-ownership. If the majority of employees are covered by the scheme, then there is

likely to be a clearer 'line-of-sight' between employee efforts and financial rewards. Alternatively, the 'line-of-sight' between efforts and rewards may be clearer for employee-owners in certain occupational groups as compared to others. Therefore, the occupational distribution of the schemes and share-ownership coverage may determine the levels of commitment in a share-ownership firm.

Fourth, the result can also be explained with the help of the theory of unmet expectations. Kruse (1984) suggests that the existence of share-ownership schemes raises expectations with respect to greater participatory rights amongst the employees in these workplaces. Inability of the share-ownership schemes to fulfil these expectations may results in disillusionment and hence a decline in the levels of commitment amongst employees in some share-ownership establishments.

On the whole, there is little support for the view that ESO schemes contribute towards higher commitment levels. Instead, employees in share-ownership establishments are likely to show lower levels of commitment particularly if only a small proportion of the employees are share-owners. Assuming that the lower levels of commitment are particularly evident amongst non-share-owners, it would be wrong to dismiss share-ownership schemes as a useful motivational tool. Instead a contingency approach could be adopted whereby it could be assumed that ESO schemes lead to higher levels of affective commitment only when certain conditions are fulfilled. Consequently, attention is directed towards factors such as the occupational distribution of the share share-ownership scheme, share-ownership coverage, the financial worth of the schemes and the influence accompanying the ownership of shares as possible factors mediating the share-ownership and affective commitment relationship.

7.2.2 Control variables

The coefficient estimates for the control variables are mainly significant, and take their expected signs. According to expectations there is a strong positive association between older age groups, married employees, and certain ethnic minorities, indicating that these groups show high levels of commitment to the organisation. Furthermore, the inverse association between educational qualifications and commitment is consistent with the expectation that the more qualified an employee is,

the higher their expectations and the less likely are they to be committed to a particular organisation. Similarly, the negative association between most occupations and affective commitment reinstates the theory that professionals are more committed to their occupation rather than to the establishment they work for. Furthermore, the inverse relationship between lower occupational levels and affective commitment provides support for the view that the feelings of personal importance to the organisation are positively related to affective commitment. The strong negative association between the fixed term contract and affective commitment suggests that employees on a fixed term contract tend to have lower commitment levels. This is an expected outcome since an employment contract based on a predetermined termination date, promises little stability or a clear career development path. A positive and significant association between high gross yearly salary levels and commitment, but a negative and significant association between lower salary level and commitment indicates that higher wages enhance commitment since money is a strong motivator (French and Rosenstein 1984; Klein 1987). Furthermore, except for job tenure, which shows a negative and significant association with affective commitment, all other individual based controls conform to expectations.

Similarly, the results for the other controls, based on establishment characteristics, conform to expectations. A negative association between most sectors and affective commitment, particularly in case of the transport and communication and financial services sector, is attributable to the high levels of job insecurity prevalent in these sectors. Positive and strong associations with affective commitment are reported only in the educational sector which is generally characterised by an internal labour market and a fair amount of job security. Factors which enrich the work experience and create a sense of identification with the establishment are positively and significantly associated with affective commitment, for example, quality circles and older establishments.

However, some of the results do not conform to expectations. For example, employees with job tenure of greater than two years and less than ten years have low levels of affective commitment. A possible explanation could be that the employees may become disillusioned with the establishment over time due to its inability to meet their expectations. This could result in lower levels of affective commitment. This

argument may be particularly relevant to employees who have spent between two to five years in the establishment. A lower level of affective commitment amongst those who stay on between five to ten years suggests that employee tenure might be determined by continuance commitment rather that higher affective commitment. Hence, the costs associated with leaving might influence employees to remain in the establishment (Meyer et al. 2002), but their growing disillusionment with the establishment may contribute to lower levels of loyalty/affective commitment to their employers (Steers 1977). Another unexpected result is the negative and significant association between joint consultative committees and affective commitment, indicating that joint consultation is associated with lower level of affective commitment. This could be because employees may not want the additional responsibility of participating in a joint consultative committee unless this responsibility is accompanied by financial rewards (Levine 1990). Alternatively, it is possible that joint consultation works in principle, but not in practice due to the reluctance of managers to allow for employee participation in the true sense (Kruse 1993). Due to the inability to establish the direction of causality, it is also possible that the results indicate that establishments that have low levels of affective commitment might have a high propensity to introduce joint consultative committees. Finally, the higher affective commitment levels observed in the private sector as opposed to the public sector could be reflective of the fact that nearly 72% of the workplaces in the private sector were stand-alone enterprises (Cully et al. 1999). It is expected that stand-alone enterprises are likely to have higher levels of affective commitment due to decentralisation of authority. This overlap between private sector firms and establishments with an independent status could possibly explain why the association between independent establishments status and affective commitment, though positive is not significant.

7.3 The occupational distribution of share-ownership schemes

Hypothesis 22 states that when share-ownership schemes are confined to managerial employees only, the commitment levels observed are lower than for schemes that include both managerial and non-managerial employees. The share-ownership establishments are disaggregated into those establishments that have only managerial

share-ownership and those where both managers and non-managerial employees own shares.

The results summarised in Table 7.2 provide no support for Hypothesis 22. They suggest that whether the distribution of the shares is confined to managerial employees only or extends to both managerial and non-managerial employees, does not make a difference to the levels of affective commitment. The results show a negative and statistically significant association (significant at 1% level) between establishments with only managerial employee-owners and affective commitment. This indicates that share-ownership establishments with only managerial share-owners report lower levels of commitment. A similar, negative and significant association (at the 1%) with affective commitment is observed for establishments where the shares are distributed to both the managerial and the non-managerial employees (Column '2' of Table 7.2). Thus, even share-ownership establishments where managerial and non-managerial employees are entitled to share-ownership schemes have lower levels of commitment. Therefore, these results suggest that the occupational distribution of the share-ownership schemes does not alter the affective commitment levels.

TABLE 7.2 Occupational distribution of share-ownership and affective commitment

Independent and Control Variables	Affective commitment	
	Coefficient estimate	T statistic
Constant	2.106	24.886
Only managerial share-ownership	-.161	-2.682***
Managerial and non-managerial ownership	-.076	-2.922***
Individual controls	Yes	Yes
Industry controls	Yes	Yes
Establishment controls	Yes	Yes
Log likelihood function	-18799.56	-18798.60
Chi-squared	1033.963	1035.885
N	14960	14960

Notes: The estimating framework for generating the results is provided in Section 5.7.2

(1) * Significant at 10% level , ** Significant at 5% level, *** Significant at 1% level.

(2) [a] multiplied by 1000. (3) Ordered probit: maximum likelihood estimates

(4) The control variables used in the base regression equation have been included in the regression equation used for generating the above results. Since the associations between the controls and affective commitment are not different from that of the base regression equation, the results for the control variables are not displayed.

A possible explanation for the result could be that even when the managerial and non-managerial employees own shares, the distribution of the equity may be such that managerial employees have a disproportionately high stake in the equity compared to the non-managerial employees and hence lower levels of affective commitment are observed. Therefore, a further refinement of this analysis would entail having some information on the distribution of the equity stake amongst the managerial and non managerial employees. Furthermore, even when ESO schemes are offered to both managerial and non-managerial employees the extent of coverage is limited. Only a small proportion of workplaces (40%) offering schemes to managerial and non-managerial employees have a majority of the employees as owners. Therefore, rather than the occupational distribution of the schemes, it may be the coverage that influences the levels of commitment observed in share-ownership establishments. However, the results for occupational distribution of ESO schemes should be interpreted with caution, since the results could have been influenced by the small number of share-ownership establishments (41 firms i.e. 8% of share-ownership establishments) that offered the schemes only to managerial employees.

The coefficient estimates for the control variables do not change on disaggregating the employees in share-ownership establishments into those that belong to share-ownership establishments that offer these schemes only to managerial employees and those that belong to share-ownership establishments that offer schemes to managerial and non-managerial employees.

7.4 Share-ownership coverage

Hypothesis 23 stated that, when a majority of the employees participate in the share-ownership schemes, higher commitment levels are observed compared to a situation when a majority of the employees are eligible for the scheme. Furthermore, Hypothesis 24 suggests that, when a majority of the employees participate in the share-ownership schemes, the positive and significant association with affective commitment is higher compared to a situation when the share-ownership schemes are present irrespective of coverage. Table 7.3 summarises the results for the three measures of share-ownership coverage and affective commitment (i.e the presence of

share-ownership schemes in a workplace, majority-eligibility or 60-100% non-managerial employees are eligible to own shares, and majority-participation whereby 60-100% non-managerial employees actually own shares in Column '1' , '2' and '3' respectively).

The results summarised in Table 7.3 provide no support for Hypotheses 23 or 24. When a majority of the employees own shares, employee commitment levels are not higher compared to a situation when most employees are eligible for participating in an ESO scheme or when ESO schemes are present in a workplace. For example, when a majority of the non-managerial employees own shares, a positive but insignificant association with affective commitment is observed (Column '3'). In contrast, negative and insignificant associations with affective commitment are observed in share-ownership establishments wherein a majority of the non-managerial are eligible for owning shares (Column '2') or these schemes are present irrespective of coverage (Column '1'). Therefore, the results provide no support for the view that offering share-ownership schemes to the rank and file employees will result in higher commitment levels. Even though majority-ownership does not yield higher commitment levels, there is a tendency towards positive commitment levels with majority-ownership of shares.

Overall, the results are consistent with some studies which suggest that broad-based schemes do not alter affective commitment levels and hence are not associated with higher levels of affective commitment (Dunn et al. 1991; Marchington et al. 1992; Pendleton 2001; Pendleton et al. 1998; Ramsay et al. 1989b). However, the results contradict those who suggest that higher commitment levels are evident in share-ownership establishments with majority-ownership (Buchko 1992; Goldstein 1978; Jochim 1979; Long 1978; Long 1980; Oliver 1984; Russell et al. 1979;).

TABLE 7.3 Share-ownership coverage and affective commitment

Independent and Control variables	Affective commitment		
	(1)	(2)	(3)
Constant	2.098	2.071	2.082
	(24.832)	(24.641)	(24.233)
Presence of share-ownership	-.086***		
	(-3.443)		
60-100% non-managerial employees eligible for share-ownership scheme		-.043*	
		(-1.625)	
60-100% non-managerial employees participate in share-ownership scheme			.704[a]
			(022)
Individual Controls	Yes	Yes	Yes
Industry controls	Yes	Yes	Yes
Establishment Controls	Yes	Yes	Yes
Log likelihood function	-18799.56	-18785.52	-18101.87
Chi-squared	1033.963	1024.410	986.0893
N	14960	14945	14420

Notes: The estimating framework for generating the results is provided in Section 5.7.3

(1) * Significant at 10% level , ** Significant at 5% level, *** Significant at 1% level.

(2) [a] multiplied by 1000. (3) Ordered probit: maximum likelihood estimates

(4) The control variables used in the base regression equation have been included in the regression equation used for generating the above results. Since the associations between the controls and affective commitment are not different from that of the base regression equation, the results for the control variables are not displayed.

The positive and yet insignificant association between majority-ownership and affective commitment challenges the argument that majority share-ownership coverage helps to establish a clear 'line-of-sight' between efforts and rewards thereby making employees more committed to the establishment. This explanation is consistent with the earlier result that broad-based share-ownership coverage does not yield higher levels of financial performance or labour productivity in comparison to the presence of share-ownership schemes (Table 6.3). Furthermore, if it is assumed that majority-participation in the ownership of shares is reflective of the financial attractiveness of the schemes, and then the results also contradict the extrinsic satisfaction model which emphasises the importance of the financial worth of the scheme in influencing employee attitudes. In addition, the results provide contradictory evidence to the studies which emphasised the overriding importance of high financial rewards in reaping desired affective commitment levels in share-ownership establishments (Buchko 1992; Goldstein 1978; Klein and Hall 1988; Pendleton et al. 1998).

A possible explanation for the results is that majority-participation in the schemes or favourable perceptions of the financial worth of the schemes may not be sufficient for generating positive and significantly higher affective commitment levels. Instead, it is possible that unmet expectations with regard to greater influence may be responsible for the insignificant affective commitment levels observed. It could be that employees harbour expectations with respect to greater participation in decision-making which need to be met so as to realise the motivational effect of ESO schemes in terms of higher levels of affective commitment (Kruse 1984). Consequently, it can be argued that ESO schemes yield higher affective commitment levels only when they co-exist with participation in decision-making.

Yet another explanation for the results could be that 100% employee ownership rather than majority-ownership is essential for yielding higher affective commitment. This possibility has been investigated by disaggregating the majority-ownership variable into establishments with 100% employee ownership, those with 80-99% employee-ownership and those with 60-79% employee ownership. Insignificant associations with affective commitment are reported for all three categories. Hence, the results show that higher commitment levels are not observed for share-ownership establishments with greater coverage.

Although employees in share-ownership establishments with majority-ownership do not show higher levels of commitment, the lower levels of commitment observed in workplaces where ESO schemes are present or have majority-eligibility are no longer evident (Table 7.3). This switch from a negative and significant association to an insignificant association can be explained by investigating the sample of share-ownership establishments under consideration. The lower levels of commitment are attributable to share-ownership establishments wherein a significant proportion of employees are non-share-owners i.e. share-ownership establishments with less than 60% non-managerial ownership. Support for this argument is found in Table 7.1B where lower levels of commitment are observed in share-ownership establishments with minority ownership. Specifically, the result could be attributed to a significant proportion of the non-share-owners in these share-ownership establishments. A significant proportion of non-share-owners also exist in workplaces where ESO schemes are present or those workplaces where the majority of employees are

eligible, thus accounting for the lower levels of commitment evident in these establishments. The sample of share-ownership establishments show that nearly 40% of workplaces where ESO schemes are present and 45% of workplaces where a majority of the employees are eligible for share-ownership have less than 60% non-managerial employees owning shares. Since a relatively small proportion of non-share-owners exist in share-ownership establishments with majority-ownership, it is not surprising that the lower levels of commitment are no longer evident in case of establishments with majority-ownership.

These results could be indicative of the effects of exclusivity versus inclusivity. When schemes are offered only to a small proportion of employees, lower levels of commitment are observed, in comparison to cases when these schemes are offered to a rank and file of the employees.

However, coverage in terms of eligibility rather than ownership appears to be the key factor determining whether employees in share-ownership establishments have lower levels of commitment or not. This inference is made from the result that lower levels of commitment observed in case of establishments with majority-eligibility are no longer evident in case of establishments with majority-ownership. Overall, the results show that while more positive levels of commitment exist when a majority of the employees own shares one cannot place much confidence in these results since they are insignificant. Clearly, other factors need to be in place in order to result in higher commitment levels.

The significance or size of the coefficients for the control variables do not change, irrespective of the measure of share-ownership coverage used.

7.5 Share-ownership coverage and participation in decision-making

Before investigating the interaction effect of participation in decision-making and ESO schemes upon affective commitment, it is important to resolve the issue of attribution (i.e. whether the affective commitment outcomes are attributable to ESO schemes, or to the other employee participation schemes that accompany it). The objective is to assess the robustness of the base regression equations and see whether

the findings for the three measures of share-ownership coverage and affective commitment persist when controlling for participation in decision-making schemes. This is achieved by testing Hypothesis 18 which states that ESO schemes continue to have a positive and significant association with commitment even when employee participation schemes are present.

Columns '1', '2' and '3' of Table 7.4A show the results for the three measures of share-ownership coverage and affective commitment upon the inclusion of participation in decision-making variables. The participation in decision-making variables are based upon individual data a distinction is made between participation in decision-making related to job-level issues (job-level participation in decision-making) and those related to organisational-level issues (organisational-level participation in decision-making).

7.5.1 The issue of attribution

The results summarised in Table 7.4A show that irrespective of share-ownership coverage, the original associations between share-ownership and affective commitment observed in Table 7.3 do not change upon the inclusion of employee participation variables. Hence, no significant changes are observed in the share-ownership/affective commitment relationship upon the inclusion of participation in decision-making variables. Therefore, these results emphasise the robustness of the base regression equations and provide support for Hypothesis 18

Furthermore, the coefficient estimates for a majority of the control variables take their expected signs. Those that do undergo a change do not change significantly upon the inclusion of job-level and organisational-level participation in decision-making to the original base regression equations estimating the link between the three measures of share-ownership coverage and performance in Table 7.3. Only a few control variables change significantly. For example, that for Chinese employees shows higher levels of commitment (almost double) when participation in decision-making is introduced in the base regression equation. This result can be attributed to a combination of multicollinearity and small sample sizes (0.2% of the entire sample of employees), thus making it difficult to draw any meaningful inferences. Furthermore, employees

who have been employed in an establishment between 2 to 5 years, no longer show lower levels of commitment when the participatory variables are introduced, again indicating multicollinearity. On the whole, the results for the control variables establish the robustness of the base equations.

TABLE 7.4A Relative effects of share-ownership coverage and employee participation on affective commitment

Independent and Control variables	Affective commitment		
	(1)	(2)	(3)
Constant	1.855	1.826	1.833
	(21.285)	(21.092)	(20.677)
Presence of share-ownership	-.099***		
	(-3.557)		
60-100% non-managerial employees eligible for share-ownership scheme		-0.049*	
		(-1.845)	
60-100% non-managerial employees participate in share-ownership scheme			0.002
			(0.054)
Job-level participation in decision-making	0.474***	0.474***	0.479***
	(20.615)	(20.594)	(0.462)
Organisation level participation in decision-making	0.502***	0.503****	0.512***
	(16.282)	(16.301)	(16.375)
Individual controls	Yes	Yes	Yes
Industry controls	Yes	Yes	Yes
Establishment controls	Yes	Yes	Yes
Log likelihood function	-17562.82	-17548.95	-16880.55
Chi-squared	2240.650	2230.862	2181.964
N	14450	14435	13919

Notes: The estimating framework for generating the results is provided in Section 5.7.4

(1) * Significant at 10% level , ** Significant at 5% level, *** Significant at 1% level.

(2) [a] multiplied by 1000. (3) Ordered probit: maximum likelihood estimates

(4) The control variables used in the base regression equation have been included in the regression equation used for generating the above results. Since the associations between the controls and affective commitment are not different from that of the base regression equation, the results for the control variables are not displayed.

7.5.2 Interaction effects: Share-ownership presence and participation

The positive interaction effects of allowing employee-owners to participate in decision-making at the job-level and the organisational-level are addressed by Hypotheses 19 and 20. Hypothesis 19 suggests that when employees in share-ownership firms have participation in decision-making, higher levels of commitment are observed relative to the presence of share-ownership alone. Furthermore, Hypothesis 20 states that the commitment levels are higher when employee share-

owners can contribute to decisions directly related to their jobs compared to decisions that concern the organisation as a whole. Table 7.4B summarises the results for the interaction effects for the presence of share-ownership schemes and participation in decision-making at the job-level and organisational-level respectively.

The results in Table 7.4B provide no support for Hypotheses 19 or 20. Higher commitment levels are not observed when employees in share-ownership establishments have participatory rights. The results show that the combined effect of the presence of share-ownership schemes and job-level participation in decision-making has an insignificant association with affective commitment (Column '3'). This indicates it is unlikely that the employees that belong to share-ownership establishments and have participatory rights at the job-level show significantly higher commitment levels compared to those that belong to share-ownership establishments or have job-level participatory rights. Furthermore, the presence of share-ownership schemes when accompanied by participation in decision-making at the organisation-level has a negative and significant association with affective commitment (Column '3'). This result indicates that when employees in share-ownership establishments have the right to participate in decision-making pertaining to the organisation level issues they have significantly lower levels of loyalty to their establishment in comparison to those that belong to share-ownership establishments or those that have participatory rights (column '3'). On comparing the coefficient estimates for the interaction terms with the presence of share-ownership schemes alone, it is evident that commitment levels are not higher when employees in share-ownership establishments participate in decision-making at different levels. In fact, the commitment levels are almost three times lower when employees in share-ownership establishments contribute to decisions at the organisational-level.

Furthermore, on comparing the coefficient estimates for the interaction terms, the results in Table 7.4B show that employees in share-ownership establishments who have the right to participate in the job-level do not have higher commitment levels compared to those that belong to share-ownership establishments and participate in issues related to the organisation. Hence, there is no support for Hypothesis 20. However, the results do indicate that, when employees in share-ownership establishments are allowed to participate in issues related to their jobs, there is a

tendency towards more positive affective commitment relative to lower commitment levels when they can contribute to organisational-level decisions.

Overall, the results show that allowing employees in share-ownership establishments to have participatory rights do not yield higher commitment levels. However, holding the other control variables constant, on average, employees in share-ownership establishments with participatory rights have higher commitment levels compared to employees belonging to non-share-ownership establishments and having no participatory rights. Therefore, the results are consistent with the studies which report positive affective commitment levels when share-ownership establishments have participation in decision-making (Buchko 1992; Klein and Hall; Long 1980; Pendleton 2001; 1988; Rhodes and Steers 1981). However, the results are inconsistent with the studies which report negative or unchanged levels of affective commitment when share-ownership schemes exist alongside participation in decision-making (Dunn et al. 1991; French and Rosenstein 1984; Hammer and Stern 1980; Hyman et al. 1989; Keef 1998; Kruse 1984; Long 1978; Long 1981 and 1982; Marchington et al. 1994 and 1992). Furthermore, the differential interaction effects for job-level and organisational-level participation in decision-making observed in Table 7.3B are consistent with the finding that the level of participation in decision-making is an important factor influencing the relationship between share-ownership and affective commitment (Kruse 1984; Long 1979; Pendleton 1998 and 2001; Trewhitt 2000). Fundamentally, the relatively more positive levels of commitment observed in share-ownership establishments when employees participate in job-level rather than organisational decisions can be attributed to the result that employees show an implicit preference for the former over the latter (Kruse 1984; Long 1979; Pendleton 1998 and 2001; Trewhitt 2000). However, since the results are insignificant no meaningful conclusions can be drawn from them. Employees may be reluctant to take on the additional responsibility of involvement in decisions that may not be of immediate concern to them (organisational-level decisions) unless this responsibility is accompanied by adequate financial rewards. Workers feel that it is unfair if they do not share in the benefits that their cost-saving ideas generate (Levine 1990). Hence, this sentiment is likely to be more pronounced in share-ownership establishments wherein only a small proportion of employees participate in the financial rewards.

The lack of higher commitment observed in share-ownership establishments where employees have participatory rights could be attributed to several factors. It may be that share-ownership establishments may not provide an environment conducive for yielding the desired benefits associated with employee participation in decision-making. It is argued that employee participation in decision-making works best if there are narrow differentials in wage and status. There is evidence that large differences in status can inhibit participation (Levine 1990). There is also evidence to suggest that share-ownership schemes often widen the divide between the haves and the have-nots rather than leading to industrial democracy (Dunn et al. 1991). In most cases, those employees who are financially secure are the ones who can afford to participate in these schemes and, consequently, are more likely to yield the financial benefits of employee-ownership in comparison to those employees who cannot afford to participate in share-ownership. Furthermore, the allocation of these schemes is often linked to base salary and the existing status of the employees and inevitably the managerial employees are likely to have a greater proportion of shares allocated to them. This may contribute to a greater status differentiation amongst the employees in share-ownership establishments. As a result, management efforts to facilitate greater employee participation in decision-making in a share-ownership establishment may be perceived as a façade used by management to hide the inequalities that might exist as a consequence of employee share-ownership.

TABLE 7.4B Interaction effects for share-ownership presence with employee participation on affective commitment

Independent and Control variables	Affective commitment		
	(1)	(2)	(3)
Constant	1.849	1.846	1.849
	(21.185)	(21.188)	(21.192)
Presence of share-ownership	-0.076***	-0.063**	-0.071***
	(-2.672)	(-2.390)	(-2.476)
Job-level participation in decision-making (jbpart)	0.487***	0.475***	0.465***
	(18.419)	(20.650)	(17.077)
Organisation level participation in decision-making(orgpart)	0.502***	0.557***	0.563***
	(16.245)	(16.361)	(16.007)
Empshare*jbpart	-0.044		0.034
	(-1.001)		(0.692)
Empshare*orgpart		-0.223***	-0.245***
		(-3.555)	(-3.445)
Individual controls	Yes	Yes	Yes
Industry controls	Yes	Yes	Yes
Establishment controls	Yes	Yes	Yes
Log likelihood function	-17562.31	-17556.22	-17555.97
Chi-squared	2241.664	2253.833	2254.331
N	14450	14450	14450

Notes: The estimating framework for generating the results is provided in Section 5.7.4

(1) * Significant at 10% level , ** Significant at 5% level, *** Significant at 1% level.

(2) [a] multiplied by 1000. (3) Ordered probit: maximum likelihood estimates

(4) The control variables used in the base regression equation have been included in the regression equation used for generating the above results. Since the associations between the controls and affective commitment are not different from that of the base regression equation, the results for the control variables are not displayed.

7.5.3 Interaction effects: Share-ownership coverage and participation

Hypothesis 25 states that higher commitment levels are observed when employees have participatory rights and they belong to share-ownership establishments where a majority of employees own shares, rather than if these employees were to belong to share-ownership establishments in which a majority of employees are eligible for share-ownership. Furthermore, Hypothesis 26 suggests that employees with participatory rights and belonging to share-ownership establishments with majority-ownership have higher commitment levels compared to those employees who have similar participatory rights but belong to an establishment where share-ownership schemes are present (irrespective of coverage). Table 7.4C presents the interaction effects for the three measures of share-ownership coverage and participation in

decision-making on the levels of affective commitment (Columns '1', '2' and '3' of Table 7.4C).

The results summarised in Table 7.4C do not provide strong support for the hypotheses. In the case of employee participation at the job-level, the results show that none of the interaction effects based on different types of share-ownership coverage and job-level participation in decision-making reach significance (Columns '1', '2' and '3' of Table 7.4C). The results suggest that even when employees have job-level participatory rights and belong to share-ownership firms with majority share-ownership, they do not show higher commitment levels.

Similarly, higher commitment levels are not observed when employees participating in organisational-level decisions belong to broad-based share-ownership establishments. On the one hand, an insignificant association with affective commitment is observed when employees participate in organisational-level decisions and belong to share-ownership establishments with majority-ownership (Column '3' of Table 7.4C). On the other hand, a negative and highly significant association with commitment is seen when employees participate in organisational-level decisions and belong to share-ownership establishments with majority-eligibility or any other establishment where share-ownership schemes are present (Columns '1', '2' of Table 7.4C). These results suggest that when employees can influence organisational-level decisions and they also belong to establishments where a majority of the non-managerial employees own shares it is difficult to predict their commitment levels. In contrast, lower commitment levels are observed amongst employees with similar participatory rights but belonging to share-ownership firms where most employees are eligible for share-ownership or those firms where share-ownership schemes are present. It is evident from the results that broader coverage of schemes does not lead to higher commitment levels even when the employees have the benefit of participating in organisational-level decisions.

The lack of higher commitment levels observed irrespective of the measure of share ownership coverage or the level of participation in decision-making is contradictory to Hypotheses 25 and 26. The result could be attributed to the fact that while status differentials may be lesser in share-ownership establishments with majority-

ownership, wage differentials may still exist, thus preventing the participatory mechanism from yielding the desired benefits. Even if a majority of the employees are owners, the distribution of the equity amongst these employees may be highly unequal, thus contributing to the wage differentials. As long as wide wage differentials exist, it would be difficult to enhance employee commitment levels by giving employees participatory rights. Therefore the results provide some support for the theory that by giving employees participatory rights higher commitment will not be yielded unless these rights are accompanied by narrow wage and status differentials (Levine 1990). Furthermore, the commitment levels are insignificant irrespective of whether the employees have organisational- or job-level participatory rights, suggesting that possibly employees in establishments with majority-ownership do not show a preference for job-level over organisational-level participation in decision-making. This could possibly be due to the fact that employees may be more willing to take on the responsibility of organisational-level decisions, since majority-ownership enables most of them share in the benefits that their contributions to decision-making generate. On the other hand, the negative signs could suggest that the employees may be more reluctant to take on decisions and prefer to delegate decision-making to experts. Since, the results are insignificant meaningful interpretations cannot be made.

Finally, the lower levels of commitment are no longer evident when employees participate in organisational-level decisions and belong to share-ownership establishments with majority-ownership rather than belonging to establishments where share-ownership schemes are present/those share-ownership establishments with majority-eligibility. The tendency towards less negative commitment levels with broader share ownership coverage could be attributed to narrowing of status differentials in establishments with majority-ownership. In comparison, wider status differentials are likely to prevail in share-ownership establishments with minority ownership. It is evident from the sample under consideration that a significant proportion of share-ownership establishments (38%) have less than 60% employee ownership. Even the establishments that offer majority-eligibility have a significant proportion (nearly half) of share-ownership establishments with less than 60% employee ownership Furthermore, almost half (47%) of the employees who belong to share-ownership establishments and have participatory rights belong to these

establishments, suggesting that there are likely to be a significant proportion of employee non-owners. Therefore, it is hardly surprising that the lower levels of commitment are evident when employees with participatory rights belong to share-ownership establishments with majority-eligibility or those where share-ownership schemes are present. However, this lower commitment is no longer evident when employees with similar rights belong to share-ownership establishments with majority-ownership.

Though the status differentials are likely be less in share-ownership establishments with majority-ownership, the differentials do not appear to be narrow enough so that employee participation schemes in share-ownership establishments yield higher commitment levels. Therefore, the results question the effectiveness of ESO schemes as an effective motivational tool.

The coefficient estimates for the control variables do not change significantly even when the interaction terms based upon the three measures of share-ownership coverage and the two levels of participation in decision–making schemes are included in the base regression equations estimated in Table 7.4A.

TABLE 7.4C Interaction effects for share-ownership coverage with employee participation on affective commitment

Independent and Control variables	Affective commitment		
	(1)	(2)	(3)
Constant	1.849	1.824	1.832
	(21.192)	(21.037)	(20.660)
Presence of share-ownership	-0.071***		
	(-2.476)		
60-100% non-managerial employees eligible for share-ownership (Majority-eligibility)		-0.034	
		(-1.127)	
60-100% non-managerial employees participate in share-ownership (Majority-participation)			0.015
			(0.392)
Job-level participation in decision-making (jbpart)	0.465***	0.463***	0.480***
	(17.077)	(17.381)	(19.130)
Organisation level participation in decision-making(orgpart)	0.563***	0.557***	0.522***
	(16.007)	(16.119)	(15.929)
Empshare*jbpart	0.034		
	(0.692)		
Empshare*orgpart	-0.245***		
	(-3.445)		
Majority-eligibility*jbpart		0.049	
		(0.945)	
Majority-eligibility*orgpart		-0.253***	
		(-3.389)	
Majority-participation*jbpart			-0.005
			(-0.074)
Majority-participation*orgpart			-0.106
			(-1.001)
Individual controls	Yes	Yes	Yes
Industry controls	Yes	Yes	Yes
Establishment controls	Yes	Yes	Yes
Log likelihood function	-17555.97	-17542.68	-16879.84
Chi-squared	2254.331	2243.388	2183.393
N	14450	14435	13919

Notes: The estimating framework for generating the results is provided in Section 5.7.4

(1) * Significant at 10% level , ** Significant at 5% level, *** Significant at 1% level.

(2) [a] multiplied by 1000. (3) Ordered probit: maximum likelihood estimates

(4) The control variables used in the base regression equation have been included in the regression equation used for generating the above results. Since the associations between the controls and affective commitment are not different from that of the base regression equation, the results for the control variables are not displayed.

7.6 Share-ownership presence and other financial participation schemes

Hypothesis 21 states that the original relationship between ESO schemes and commitment levels will persist even if other financial participation schemes are present. The results are summarised in Table 7.5, wherein the relative effects of the presence of share-ownership schemes and other financial participation schemes (such as Profit-Related Pay and Deferred Profit-Sharing) are reported. The relative effects of share-ownership presence, Profit-Related Pay and Deferred Profit-Sharing schemes are presented in Table 7.5.

The results summarised in Table 7.5 provide support for Hypothesis 21 thereby establishing the robustness of the base regression equation containing the presence of share-ownership schemes and affective commitment (Table 7.2) The results show that the association between the presence of share-ownership schemes and affective commitment continues to be negative and significant (-0.096 and significant at 1% level), even on introducing Profit-Related Pay and Deferred Profit-Sharing schemes as controls (Column '3').

In comparison to the presence of share-ownership schemes, Deferred Profit-Sharing schemes have a positive and significant association with affective commitment (0.063 significant at 10% level), whereas Profit-Related Pay is positively though insignificantly related to affective commitment (0.028). Hence, establishments with Deferred Profit-Sharing schemes are reported to have higher levels of affective commitment compared to the insignificant or lower levels of affective commitment observed in establishments that have Profit-Related Pay or share-ownership schemes. The results are contrary to expectations, and do not support Hypothesis 21, which predicts share-ownership schemes to be the most strongly and positively associated with affective commitment.

TABLE 7.5 Relative effects of share-ownership presence and other financial participation schemes on affective commitment

Independent and Control variables	Affective commitment		
	(1)	(2)	(3)
Constant	2.086	2.102	2.091
	(24.562)	(24.851)	(24.588)
Presence of share-ownership	-0.095***	-0.088***	-0.096***
	(-3.713)	(-3.546)	(-3.754)
Profit-Related Pay	0.032		0.027
	(1.491)		(1.252)
Deferred Profit-Sharing schemes		0.069**	0.063*
		(1.929)	(1.768)
Individual controls	Yes	Yes	Yes
Industry controls	Yes	Yes	Yes
Establishment controls	Yes	Yes	Yes
Log likelihood function	-18798.47	-18797.55	-18796.78
Chi-squared	1036.154	1037.991	1039.534
N	14960	14960	14960

Notes: : The estimating framework for generating the results is provided in Section 5.7.5

(1) * Significant at 10% level , ** Significant at 5% level, *** Significant at 1% level.

(2) [a] multiplied by 1000. (3) Ordered probit: maximum likelihood estimates

(4) The control variables used in the base regression equation have been included in the regression equation used for generating the above results. Since the associations between the controls and affective commitment are not different from that of the base regression equation, the results for the control variables are not displayed.

This positive and higher affective commitment levels evident in establishments with Deferred Profit-Sharing schemes may be attributed to the possibility that it is relatively easier to satisfy aspirations associated with Deferred Profit-Sharing schemes, as opposed to expectations associated with share-ownership schemes. Deferred Profit-Sharing schemes are presented to employees as nothing more than a financial participation scheme. This makes it easier to fulfil expectations associated with it and gives management greater credibility in the eyes of employees. In comparison, ESO schemes confer a status of ownership on to the employee-owners and hence it is likely that share-ownership schemes will generate expectations for financial rewards as well as ownership rights. Previous studies have shown that it is very difficult to manage expectations regarding feelings of ownership because it is influenced by employee perceptions (Pendleton 2001). Moreover, the element of risk associated with the ownership of shares may increase the uncertainty of fulfilling the financial aspirations of employee-owners. While this possibility cannot be denied it

must be noted that the risk attached to participating in share-ownership schemes is relatively low (Poutsma and Nijs 2003). Furthermore, even though the financial rewards of employees are dependent upon organisational performance, the link between individual efforts and rewards is not always clear. This lack of clarity may lead to greater dissatisfaction with share-ownership. In contrast, Deferred Profit-Sharing Schemes, which are purely a financial incentive, are more adept at meeting the financial aspirations of employees since the employee contributions are invested in a portfolio of fiduciarily-sound investments. Thus, the risks associated with Deferred Profit-Sharing schemes are practically negligible and the financial aspirations are generally met. The insignificant coefficient for Profit-Related Pay is contrary to expectations and would require further investigation to be interpreted.

Overall, the results emphasise the importance of financial benefits in influencing employee attitudes (Buchko 1993; French 1987; Pendleton 2001). Fundamentally, the results reconfirm the view that ESO schemes are not effective motivational tools. In most cases the control variables take their expected signs and do not change significantly upon the inclusion of variables for Profit-Related Pay and Deferred Profit-Sharing schemes to the base regression equation in Table 7.1A. Therefore, the results for the control variables emphasise the robustness of the base regression equation.

7.7 Share-ownership and employee turnover

The strong inverse relationship between share-ownership and affective commitment provides little support for the view that share-ownership schemes improve performance through enhanced affective commitment. This observation necessitates the investigation of the argument that share-ownership schemes yield higher performance by lowering levels of employee turnover.

7.7.1 Share-ownership presence and employee turnover

Hypothesis 28 states that the presence of share-ownership schemes in a workplace is strongly and negatively correlated with employee turnover.

The results summarised in Table 7.6 provide support for Hypothesis 28. The results show that the presence of share-ownership schemes in a workplace is negatively and significantly correlated with the levels of employee turnover. This indicates that workplaces with ESO schemes have lower levels of employee turnover relative to those workplaces without these schemes. There could be two interpretations of the negative and significant correlation between the presence of share-ownership schemes and employee turnover. On the one hand, the results could indicate that share-ownership schemes reduce employee turnover. Alternatively, they could mean that establishments that have low employee turnover are more likely to introduce share-ownership schemes. The former interpretation is preferred since there is a theoretical basis (Long 1978a; Pierce et al. 1991; Rhodes and Steers 1981) and empirical support (Buchko 1992; Long 1978a; Long 1980;; Rhodes and Steers 1981; Wilson et al. 1990) for suggesting that share-ownership schemes contribute to lower levels of employee turnover rather than the other way round.

Theory outlines two possible explanations for the strong negative correlation between share-ownership and employee turnover. According to the most popularly held view share-ownership schemes impact upon employee turnover levels by improving levels of affective commitment (Buchko 1992; Long 1978a; Rhodes and Steers 1981; Pierce et al. 1991). The other view is that the financial rewards associated with share-ownership, makes the decision to quit expensive and therefore the schemes reduce employee turnover by acting as 'golden handcuffs' (Blair and Kruse 1999; Conte and Kruse 1991; Richardson and Nejad 1986; Wilson et al. 1990).

The results for share-ownership and affective commitment presented in earlier in this chapter (see Section 7.2) indicate that share-ownership schemes are not associated with higher affective commitment. In fact, these schemes appear to be associated with lower levels of affective commitment. Under these circumstances, it is highly improbable that share-ownership schemes reduce turnover by yielding higher affective commitment. Hence, it is more likely that the 'golden handcuff' theory explains the lower levels of employee turnover observed in share-ownership establishments.

It is possible that the lower levels of employee turnover in share-ownership establishments are attributable to the high wages paid in these establishments (Renaud et al. 2004; Blair and Kruse 1999). This possibility is tested by controlling for the level of yearly earnings for full-time employees in the regression equation testing for the share-ownership and employee turnover relationship. The results indicate that the lower levels of employee turnover are attributable to the presence of share-ownership schemes in a workplace rather than the higher level of earnings. This is evident from the result that the relationship between the presence of share-ownership schemes in the workplace and employee turnover is negative and significant (at the 1% level), whereas an insignificant association exists between the levels of employee turnover and the proportion of employees earning more than £22,000 per annum (Table 7.6). Therefore, it could be inferred from these results that it is the presence of share-ownership schemes rather than the higher wages that account for the lower levels of employee turnover observed in these establishments.

TABLE 7.6 Impact of share-ownership coverage on employee turnover.

Independent and Control variables	Employee Turnover	
	Coefficient estimate	T statistic
Constant	-1.857	-10.318
Presence of share-ownership	-0.337	-5.127***
Sectors		
Manufacturing sector	-0.072	-0.558
Public administration	-0.134	-0.706
Education	0.012	0.081
Health and community service	0.247	1.816*
Electricity and Gas	-0.367	-0.674
Water and Construction	-0.084	-0.506
Wholesale and Retail	-0.053	-0.422
Hotels and restaurant	0.502	3.759***
Transport and communication	-0.112	-0.706
Financial services	-0.073	-0.467
Other business services	0.099	0.761
Establishment size: 10–30,000	0.190[a]	-1.929**
Establishment Status		
Independent establishment	-0.190	-3.431***
Private sector	0.399	4.390***
Union Presence:	-0.301	-4.816***
Grievance-handling procedures	-0.039	-0.772
Pay		
% full time employees earning< £22000 p.a.	-0.016	-0.122
% full time employees earning <£9000 p.a.	0.188	1.902*
Employment Contract: % of part time employees	0.246	2.068**
Gender: % of female employees	-.353	-2.937***
Ethnicity: % of non-white employees	-0.080	-0.345
Age: % of employees under 20years	1.158	6.011***
Occupational distribution		
% of unskilled workforce	-0.461	-3.040***
% sales	-0.051	-0.328
% technical and scientific	-0.647	-3.254***
% clerical	-0.224	-1.275
% craft and skilled	-0.577	-3.632***
% operative and assembly	-0.617	-3.882***
% professional	-0.321	-1.931**
Log likelihood function	-2139.152	
Adjusted R-squared	0.301	
N	1351	

Notes: Estimating framework for the above results is provided in Section 5.9.1

(1) * Significant at 10% level , ** Significant at 5% level, *** Significant at 1% level.

(2) [a] multiplied by 1000. (3) Weighted least squares: maximum likelihood estimates

(4) The control variables used in the base regression equation have been included in the regression equation used for generating the above results. Since the associations between the controls and affective commitment are not different from that of the base regression equation, the results for the control variables are not displayed.

7.7.2 Control variables

The coefficient estimates for the control variables generally conform to expectations (Table 7.6). The results for the environmental controls indicate a positive and significant association between employee turnover and the health sector as well as the hotel industry. The result is indicative of the exceptionally high levels of employee turnover in the health sector and the hotel industry. The high levels of employee turnover in these sectors could be explained by the high proportion of part-time staff and contractual employment in these sectors. Part-time employees generally have a high propensity to quit since the opportunity cost of leaving is relatively.

Establishment characteristics like size, the status of the establishment and union recognition have a negative and significant association with employee turnover. This suggests that the levels of employee turnover are lower in large establishments, workplaces with a recognised union and also in independent establishments. The inverse relationship between employee turnover and establishment size lands support for the argument that larger establishments are likely to have HR structures and practices that make it lucrative to remain such as, the existence of an internal labour market, high pay, training facilities, and opportunities for career progression (Lincoln and Kalleberg 1996). The lower levels of employee turnover observed in independent establishment can be attributed to higher levels of affective commitment fostered by decentralisation of authority in these establishments. Furthermore, the results report a strong inverse relationship between the presence of a recognised union and employee turnover. These results provide support for Freeman and Medoff's (1984) argument that trade unions reduce quit-rates by serving as an important vehicle for allowing workers to express their grievances. Following from the above argument, it would be expected that establishments that have grievance-handling procedures will have lower quit-rates. However, the results report an insignificant association between grievance-handling procedures and employee turnover. This result could be due to the divorce between the presence of formal procedures and their actual implementation.

The positive and significant association between privately-owned workplaces and employee turnover is consistent with the argument that privately-owned workplaces generally thrive on a hire and fire culture and consequently have high employee turnover levels (Lincoln and Kalleberg 1996).

The results for the workforce characteristics also conform to expectations, except for pay which appears to have no significant effect upon employee turnover. A highly positive and significant association between the percentage of part-time employees and employee turnover is reflective of the fact that part-time employees are more likely to leave an establishment in search of better opportunities. A negative and significant association between the percentage of women and the levels of employee turnover indicates that the women have a lower propensity to quit than men. This result conflicts with the view which suggests that women will be more likely to leave because they often have priorities other than their jobs, for example family obligations (Arthur 1981; Marsh and Mannari 1997). The low propensity to quit amongst women may be indicative of a society where women are more career-oriented and this high need for achievement influences them to stay longer with the establishment resulting in lower levels of employee turnover. The results could also be explained by the changing role of women in the modern UK society, whereby they may have the dual responsibility of earning money and attending to the needs of the family. Alternatively, the results could be explained in terms of perceived low alternatives for women in the workplace in comparison to men, thereby making it expensive for women to quit because of the high opportunity cost associated with leaving the job.

The results indicate that the proportion of the workforce under 20 years old is positively and significantly associated with the levels of employee turnover, thereby suggesting that a younger workforce has a high propensity to quit. According to the results, the occupational distribution of the workforce appears to be yet another important predictor of turnover levels.

Establishments with a high proportion of non-managerial or low-skilled workers would generally have lower rates of turnover. However, contrary to expectations, the proportion of unskilled workforce appears to be strongly and inversely associated

with employee turnover. This result can be explained by the fact that these employees generally have a low bargaining power in the labour market, which restricts the job opportunities available to them and hence restricts mobility. However, the inverse relationship between the proportion of professionals and the employee turnover is more difficult to explain and contradicts the theory which argues that professionals would have a high propensity to quit because of the competitive advantage they enjoy in the labour market. Instead, the result could be explained by arguing that the relatively high pay and the promotion prospects associated with professional positions could influence professionals to stay on in the organisation.

7.8 Share-ownership coverage on employee turnover

Assuming that the lower levels of employee turnover in share-ownership workplaces is attributable to the 'golden handcuff' effect of share-ownership then it would be expected that when a majority of the employees participate in share-ownership schemes the levels of employee turnover would be even lower. Thus Hypotheses 29 and 30 suggest that share-ownership firms with a majority of the employees owning shares will have lower levels of employee turnover compared to those firms where a majority of the employees are eligible for share-ownership (Hypothesis 29) or those firms where there is a presence of share-ownership schemes (Hypothesis 30). The results for three measures of share-ownership coverage and employee turnover are presented in Table 7.7.

The results summarised in Table 7.7 do not provide strong support for Hypotheses 29 or 30. All three measures of share-ownership coverage are negatively and significantly associated with the levels of employee turnover and the coefficient estimates are marginally stronger for establishments with majority-ownership compared to those with majority-eligibility, or with share-ownership presence (Columns '1', '2' and '3' of Table 7.7). However, the differences in the coefficient estimates are marginal. Therefore, the results suggest that broader share-ownership coverage do not have noticeably lower levels of employee turnover. At best there is a tendency towards lower levels of employee turnover with broader share-ownership coverage.

TABLE 7.7 Impact of the share-ownership coverage on employee turnover

Independent and Control variables	Employee Turnover		
	(1)	(2)	(3)
Constant	--1.857***	-1.879***	-1.786***
	(-10.318)	(-10.402)	(-9.851)
Presence of share-ownership	-0.336***		
	(-5.127)		
60-100% non-managerial eligibility		-0.360***	
		(-5.016)	
60-100% non-managerial ownership			-0.373***
			(-3..346)
Industry Controls	Yes	Yes	Yes
Establishment Controls	Yes	Yes	Yes
Workforce Characteristics	Yes	Yes	Yes
Log likelihood function	-2139.152	-2136.4245	-2077.021
Adjusted R-squared	0.317	0.316	0.312
N	1351	1349	1308

Notes: Estimating framework for the above results is provided in Section 5.9.2

(1) * Significant at 10% level , ** Significant at 5% level, *** Significant at 1% level.

(2) [a] multiplied by 1000. (3) Weighted least squares: maximum likelihood estimates

(4) The control variables used in the base regression equation have been included in the regression equation used for generating the above results. Since the associations between the controls and affective commitment are not different from that of the base regression equation, the results for the control variables are not displayed.

The lack of a significant decrease in the levels of employee turnover with broader share-ownership coverage could be attributable to several factors. It may be that when a majority of the employees own shares there is a dilution of individual rewards, so 'the golden handcuff' effect may not be significantly stronger with broader ownership, even though a larger proportion of employees own shares.

Even if broad based share-ownership does not lead to the dilution of individual earnings, employee turnover levels may not be lower in these workplaces. In fact, once the employee-owners reap substantial financial rewards, they may be more inclined to discontinue employment unless they perceive a benefit in continuing in the job (Culpepper et al. 2004). The perceived financial benefit of remaining in the firm,

or the opportunity cost of quitting the firm could be influenced by the vesting period and the vesting schedule or could depend upon whether the allocation of shares is a stand-alone venture or an ongoing process.

The vesting period is the time lag between the allocation of the shares and the exercise of the options. If the vesting period is very short, then the employees may be inclined to quit as soon as they can reap the necessary financial rewards. Therefore the effect of the 'golden handcuffs' would be short-lived. However, if the vesting period is too long, then the employees may be lured by alternative opportunities for more immediate financial returns, thereby weakening the effect of share-ownership on employee turnover. Therefore, the vesting period can be used to influence the employee decision to remain.

Furthermore, the vesting schedule (the manner in which the shares are allocated to the employees) can also have an impact upon the decision to remain, and subsequently influence the levels of employee turnover. For example, a 'staggered vesting' schedule, where the allocation of shares is directly proportional to each additional year in employment, is likely to have a stronger effect than a 'cliff vesting' schedule where all the shares are allocated to the employee after a certain period of time in employment. Thus share-ownership coverage may be one of the many factors related to share-ownership design that influence the levels of employee turnover in workplaces with share-ownership schemes. If the scheme is ongoing, then the majority-ownership of the shares would have a stronger likelihood of reducing employee turnover because there would be a vested interest in continuing in employment. Finally, the ability of the scheme to act as a 'golden handcuff' is also dependent upon alternative financial incentives offered in the market. If all the competing firms offer equally lucrative or more lucrative financial rewards, the scheme will have a lesser impact upon retention. However, because of the substantial rewards associated with the ownership of shares and the directly proportional link between rewards and years in employment, share-ownership schemes do act as an effective retention tool.

7.9 Employee turnover and organisational performance

Hypothesis 31 suggests that share-ownership establishments affect labour productivity rather than financial performance through lower levels of employee turnover. Hypothesis 31 is well-supported by the results (Table 7.8A). The original positive and significant association between the presence of the share-ownership and financial performance is not significantly altered upon the inclusion of the fitted value for employee turnover (Column '1' of Table 7.8A). The coefficient estimates for the presence of share-ownership change only marginally from 0.593 to 0.510 when the fitted value of employee turnover is included in the regression. Hence, only a very small proportion of the higher financial performance observed in share-ownership establishments can be attributed to lower levels of employee turnover. Therefore, there are likely to be routes other than lower employee turnover that explain the higher financial performance outcomes in share-ownership establishments.

In contrast to the findings on financial performance, the lower levels of employee turnover do appear to explain a significant proportion of the higher labour productivity outcomes observed in workplaces with share-ownership schemes (see Table 6.1A). When labour productivity is considered as a performance measure, the original positive and significant association between the presence of share-ownership and labour productivity loses significance upon the inclusion of the fitted value for employee turnover (Column '2' of Table 7.8A). This contrasts with a positive and significant association with labour productivity before the inclusion of the fitted value for employee turnover (Table 6.1A). Thus, the higher levels of labour productivity observed in share-ownership workplaces are almost entirely attributable to lower levels of employee turnover, thereby providing strong support for Hypothesis 31. Therefore, share-ownership establishments are associated with lower levels of employee turnover (Table 7.6 and 8.3) and lower levels of employee turnover are associated with higher labour productivity (Table 7.8A). Hence, assuming the direction of causality outlined in the theoretical model, (Section 4.6) it could be argued that share-ownership schemes enhance labour productivity through reduced employee turnover.

TABLE 7.8A Impact of share-ownership presence and the fitted value of employee turnover on performance

Independent and control variables	Financial performance	Labour productivity
	(1)	(2)
Constant	-0.883***	-1.236***
	(-2.723)	(-3.688)
Fitted value of employee turnover	-0.391***	-0.763***
	(-2.561)	(-4.862)
Presence of share-ownership	0.510***	0.133
	(4.071)	(1.085)
Union Presence: Recognised Union	0.285**	-0.276**
	(2.258)	(2.178)
Level of Technology: % of unskilled workers	0.126	-0.055
	(0.619)	(-0.273)
Establishment Age: >20 years	0.033	-0.158*
	(0.377)	(-1.785)
Sectors		
Manufacturing sector	0.285	-0.368*
	(1.338)	(-1.659)
Public Administration	0.715*	-0.021
	(1.847)	(0.052)
Education	0.349	0.089
	(1.549)	(0.381)
Health	0.264	0.577***
	(1.167)	(2.446)
Electricity, gas and water	0.006	-0.553
	(0.007)	(-0.612)
Construction	0.342	-1.071***
	(1.151)	(-3.520)
Wholesale and Retail	0.041	-0.126
	(0.205)	(-595)
Hotels and Restaurants	0.428*	0.455
	(1.722)	(1.742)
Transport and Communication	-1.149	-0.505
	(-0.569)	(-1.886)
Financial services	-0.091	-581**
	(-0.344)	(2.165)
Other business services	-0.254	-0.313
	(-1.137)	(-1.339)
Establishment size 10-30,000 employees	0.167[a]	0.288
	(-0.966)	(-1.101)[a]
Market Characteristics		
Market Growth	0.505***	0.217***
	(6.277)	(2.673)
International Market	0.104	0.006
	(0.908)	(0.057)
Product Market Competition	-0.021	-0.051
	(-0.238)	(-0.589)
Establishment Status: Independent Establishment	0.019	0.083
	(0.191)	(-0.830)
Log Likelihood	-727.1346	-715.827
Chi Squared	97.5696	93.275
N	1055	1101

Notes: Estimating framework for the above results is provided in Section 5.9.3

(1) * Significant at 10% level , ** Significant at 5% level, *** Significant at 1% level (2) a multiplied by 1000 (3) Binomial probit: maximum likelihood estimates.(4) Tests have been conducted in order to test for multicollinearity between the presence of share-ownership schemes and the fitted values of employee turnover revealing that multicollinearity does not exist in the regression equations estimated in Table 7.8A.

Subsequently, the analysis was focused further on share-ownership establishments with broader share ownership coverage i.e. share-ownership establishments with majority-eligibility and majority-coverage. This additional step was needed to determine whether the support for Hypothesis 31 exists also for share-ownership establishments with majority-ownership. The results presented in Table 7.8B are consistent with those in Table 7.8A, thereby providing additional confidence in the robustness of the initial findings.

The control variables generally take their expected signs and the report similar associations as in case of the base regression equations testing for the effect of the presence of share-ownership schemes on financial performance and labour productivity. They have already been discussed in detail in Section 6.2.1 of Chapter 6.

TABLE 7.8B Impact majority share-ownership coverage and fitted value of employee turnover on performance

Independent and Control Variables	Economic Outcomes			
	Better than average financial performance		Better than average labour productivity	
	(1)	(2)	(3)	(4)
Constant	-0.786***	-0.955***	-1.164***	-0.998***
	(2401)	(-2.864)	(-3.445)	(-2.993)
Fitted values of employee turnover	-0.364**	-0.464***	-0.738***	-0.640***
	(-2.358)	(-2.987)	(-4.645)	(-4.041)
60-100% non-managerial employees are eligible for share-ownership schemes (Hicover)	0.461***		0.054	
	(3.220)		(0.385)	
60-100% of the non-managerial employees actually participate in the share-ownership (Hipart)		0.402*		-0.025
		(1.778)		(-0.127)
Industry Controls	Yes	Yes	Yes	Yes
Establishment Controls	Yes	Yes	Yes	Yes
Log Likelihood	-730.603	-714.215	87.518	-701.882
Chi Squared	87.798	72.376	-718.046	79.612
N	1143	1107	1100	1069

Notes:

(1) * Significant at 10% level , ** Significant at 5% level, *** Significant at 1% level.

(2) a multiplied by 1000 (3) Binomial probit: maximum likelihood estimates

(3) The control variables used in the base regression equation have been included in the regression equation used for generating the above results. Since the associations between the controls and employee turnover are not different from that of the base regression equation, the results for the control variables are not displayed.

7.10 Concluding remarks

Overall, the results provide no support for the hypothesised positive and significant association between the presence of share-ownership and affective commitment thus challenging the dominant view that share-ownership schemes influence organisational performance through fostering greater commitment to the establishment (Klein 1987; Long 1978a; Pierce et al. 1991; Rhodes and Steers 1981). Instead, the results provide support for the view that share-ownership schemes enhance performance through lower levels of employee turnover (Richardson and Nejad 1986; Wilson et al. 1990).

A strong and negative association between share-ownership and affective commitment is observed which persists even when controlling for participation in decision-making and other financial participation schemes. A plausible interpretation of this result is that the presence of share-ownership is associated with reduced levels of affective commitment. This interpretation is favoured particularly since there is a strong theoretical rationale as well as evidence to suggest that share-ownership schemes influence affective commitment rather than the other way round (Dunn et al. 1988). At best, share-ownership schemes are associated with insignificant levels of affective commitment when a majority of the employees own shares or employees in share-ownership establishments are granted participation in decision-making at the job-level. Similar outcomes are also evident for share-ownership establishments wherein a majority of the employees own shares and also have participation in decision related to issues pertaining to their job and the organisation as a whole. However, under no circumstances are higher levels of affective commitment observed.

Therefore, the results provide contradictory evidence to a vast majority of studies which reported that share-ownership schemes are associated with higher commitment levels (Bell and Hanson 1989; Buchko 1992; Goldstein 1978; Jochim 1979; Long 1978 and 1980; Marsh and McAllister 1981; Pendleton 2001; Poole and Jenkins 1990; Rhodes and Steers 1981; Russell et al. 1979; Tucker et al. 1989). Instead, the results provide support for the studies which suggested that share-ownership schemes are associated with reduced (Keef 1998; Kruse 1984; Long 1982) or unchanged levels of

commitment (Ackers et al. 1992; Dunn et al. 1991; French and Rosenstein 1984; Hyman et al. 1989; Hammer and Stern 1980; Long 1978 and 1981; Marchington et al. 1994; Sockell 1985; Wilkinson et al. 1994).

The lower levels of affective commitment witnessed in share-ownership establishments could be attributed to the inability of these schemes to adequately meet the financial aspirations and expectations related to participation in decision-making. Fundamentally, these results suggest that share-ownership schemes are not an effective motivational tool and hence these results provide no explanation for the higher labour productivity and financial performance outcomes observed in share-ownership establishments (Chapter 6).

The results for share-ownership and employee turnover are more conclusive and show that there is a strong inverse relationship between the presence of share-ownership schemes and employee turnover. Furthermore, a significant proportion of the higher labour productivity observed in the share-ownership firms is explained by the lower levels of employee turnover observed in these firms. Since the lower levels of employee turnover are achieved despite the fact that employees in these establishments do not show higher affective commitment, the results can be attributed to the 'golden handcuff' effect of having share-ownership schemes. The higher productivity achieved through reduced employee turnover can be explained using the 'firm-specific capital' investment argument which argues that a stable workforce increases the firm's return on investment in human capital (Richardson and Nejad 1986). Consequently, it could be argued that the 'golden handcuff' in conjunction with the 'firm-specific' capital investment theory explain the higher labour productivity observed in share-ownership establishments thereby lending support to the theoretical model developed in Section 4.6.

However, the results suggest that the lower levels of employee turnover do not explain the higher financial performance outcomes observed in share-ownership establishments. The results suggest that there are routes other than employee turnover that may account for higher performance in share-ownership firms.

Chapter 8

Conclusions, limitations and implications

8.1 Introduction

Based on a comprehensive review of the existing literature, this thesis concluded that previous work investigating the relationship between share-ownership and organisational performance does neither provide a sufficiently clear picture of the factors mediating the strength of this relationship nor fully explore the routes through which share-ownership schemes enhance performance. To advance knowledge in the domain of share ownership and performance these key issues have been thoroughly investigated by drawing upon a sample of nationally representative British firms provided by the WERS 98 data-set. The following broad conclusions emerge.

First, the thesis suggests that it is important to revise the dominant view propagated by the share-ownership lobbyists, i.e. that the presence of share-ownership schemes is a sufficient condition for yielding higher performance outcomes. Instead, a contingency approach is advocated by identifying certain factors intrinsic and extrinsic to the share schemes which play a critical role in enabling share schemes to yield better performance.

Second, this thesis presents share-ownership schemes primarily as a tool for retaining employees and reducing employee turnover rather than fostering greater affective commitment to the establishment. Contrary to the popular view of share-ownership schemes as a motivational tool, this thesis draws attention to the possibility that under certain circumstances share-ownership schemes can be associated with lower levels of affective commitment. For example, lower levels of commitment could be observed unless these schemes cover the majority of the non-managerial employees or these schemes are combined with job-level participation in decision-making. Therefore, there are costs attached to the introduction of share-ownership schemes, yet another aspect not acknowledged by its advocates.

Third, this thesis strongly advocates the 'golden handcuff' theory in explaining the higher labour productivity outcomes observed in share-ownership establishments. In so doing attention is directed to a dimension of commitment neglected by most of the research on share-ownership and performance, i.e. continuance commitment. Therefore, the present thesis stresses the need to distinguish between different components of organisational commitment in future investigations of share-ownership and performance.

8.2 Share-ownership and performance

The positive and statistically significant relationship between share-ownership and financial performance and labour productivity suggests that an Employee Share-Ownership scheme is associated with higher performance. However, the results differ from the majority view in so far as they emphasise that a set of conditions need to be in place for the share-ownership to yield the expected performance benefits. The findings suggest that the magnitude of the performance benefits yielded by share-ownership schemes are mediated by factors that range from nature of industry (manufacturing versus non-manufacturing sector), presence of a union, existence of certain types of participation in decision-making (downward communication) to presence or absence of certain types of financial participation schemes (Profit-Related Pay). The results also vary depending upon the measure of performance used. In some cases share-ownership schemes have different effects upon financial performance and labour productivity.

Contrary to expectations the results indicate that workplaces where a majority of the employees own shares or are eligible for ownership do not have higher performance outcomes compared to other workplaces where share-ownership schemes are present. Instead, the results direct attention to the argument that it is the size of the equity stake rather than the proportion of employees owning shares that influences the levels of performance in share-ownership establishments. This finding is consistent with those of Conte and Tannenbaum (1978) and Jochim (1979), but contradictory to the expectations of Kruse (1984).

The reason for the importance of the value of equity stake over the proportion of employees covered could be attributed to the fact that a greater proportion of employees owning shares may not be indicative of a higher value of individual shareholdings. In fact, broader share-ownership coverage may result in the dilution of the value of individual shareholdings, thus weakening the link between individual effort, financial reward and organisational performance. It may well be that, for broad-based employee-ownership to have the desired performance effect, it is important to have a majority of the employees owning a substantial equity stake. Fundamentally, the results indicate that the coverage of the schemes in terms of the proportion of employees covered does not influence the strength of the share-ownership/performance relationship.

The finding that share-ownership schemes are more positively linked to labour productivity in non-manufacturing workplaces suggests that the share-ownership/performance relationship or specifically, the share-ownership/labour productivity relationship is strongly influenced by contextual factors. A possible interpretation of these results could be that employee-owners observe a clearer connection between effort and reward in the non-manufacturing sector as compared to the manufacturing sector and hence are willing to work harder. However, the differences in labour productivity do not appear to translate into higher financial performance in share-ownership establishments in the non-manufacturing sector. A possible explanation is that the gains from higher labour productivity may be offset by increased labour costs due to higher wages accompanying higher labour productivity (Freeman and Medoff 1984).

The results show that share-ownership workplaces with downward communication schemes have higher performance whilst those with representative participation or upward problem-solving groups do not. The results suggest that greater information-sharing rather than employee involvement in decision-making may play a significant role in yielding expected superior performance in the workplaces with share-ownership schemes.

This interpretation of the results is counter to the dominant view that share-ownership schemes should be accompanied by greater worker influence in order to reap

performance benefits (GAO 1987; Goldstein 1978; NCEO 2002; Ramsay et al. 1989b; Rosen 1990; the Northeast Ohio study 1993). Instead, the findings provide support for the few studies that have downplayed the role of employee involvement (Kruse 1993; Long 1978) and those that emphasised the criticality of having a good and open communication system in contributing to the success of a share-ownership establishment (Business Week 1984; Employee Benefit Plan Review 1983; Gamlin 1978).

The results also challenge the 'bundling effects' argument which suggests that the combined effect of different employee involvement schemes is superior to having these schemes in isolation. Instead, a contingency argument is advocated which suggests that the benefits of bundling together different employee involvement schemes would vary according to the scheme in question thereby lending support for Mc Nabb and Whitfield's (1998) view regarding the varying effects of different types of employee involvement schemes on performance. One possible interpretation of the results could be that greater information-sharing enhances the effectiveness of the production process due to clearer goal-setting and less reliance on informal mechanisms of communications. Furthermore, having better communication systems in share-ownership establishments helps to improve labour-management relationships and fosters a co-operative culture which is perceived as a necessary condition for group-based incentive schemes to be successful (Appelbaum and Berg 2000 in Sesil et al. 2002).

The finding that the upward problem-solving schemes do not yield higher labour productivity when they exist in share-ownership establishments draws attention to the argument that participation in decision-making does not yield the expected benefits unless the environment in which they exist is suitable. It is argued that, if employee participation schemes are not accompanied by narrow wage differentials, the productivity benefits associated with participation in decision-making will not be realised (Levine 1990). Therefore, it is possible that share-ownership firms do not provide a suitable environment for participatory mechanisms since ESO schemes often contribute towards widening the earnings differential between those who own shares and those who do not (Dunn et al. 1991). This interpretation of the results challenges the popular notion that ESO schemes promote economic democracy.

Instead, it hints at the possibility that these schemes might actually widen the financial gap between the richer and the poorer employees. Another reason for lack of higher performance in share-ownership establishments with participatory mechanisms could be that the formal presence of schemes such as representative participation may not guarantee their implementation (Jochim 1979; Kaufman and Russell 1995; Kruse 1984).

The finding that unionised share-ownership firms have higher labour productivity outcomes compared to all other workplaces with ESO schemes suggests that the presence of a union in a share-ownership establishment has a beneficial effect upon productivity. The higher labour productivity outcome could be indicative of a highly participative environment in unionised-share-ownership firms, thereby lending support to the argument that unionised firms with ESO schemes have a greater participatory culture (Pendleton et al. 1995). The results could also be attributed to other factors. It could be that, when employees have a voice, they have a lower propensity to quit due to an opportunity to express grievances (exit-voice hypothesis). Moreover, when ESO schemes exist, the promise of financial rewards may make it expensive to quit i.e. the 'golden handcuff' theory. However, the labour productivity benefits observed in the unionised-share-ownership firms do not appear to translate into higher financial performance, thereby adding weight to the theory that higher labour productivity may be achieved at the expense of higher costs and lower profits.

The share-ownership/performance results differ for financial performance and labour productivity. For example, the nature of the industry appears to have no effect upon the financial performance but appears to have a strong positive effect on the labour productivity outcomes in share-ownership establishments. Downward communication systems, introduced alongside employee share-ownership, are associated with enhanced labour productivity, but they have no effect on financial performance. Profit-Related Pay is complementary to share-ownership schemes in relation to financial performance, but a substitute in the case of labour productivity. The differing results for financial performance and labour productivity are consistent with the observation by Sesil et al. (2002) that the strength of the share-ownership/performance relationship is influenced by the measure of performance under consideration. These results emphasise the multidimensionality of the

performance construct and make a case for distinguishing between different measures of performance while investigating the ESO/performance relationship.

Although the results introduce new dimensions to the Employee Share-Ownership and performance question, by and large, they conform to the basic theoretical expectation that ESO schemes are associated with enhanced financial performance and labour productivity. On the whole, the results provide support for some of the key findings generated in previous, mainly US-based, studies. Therefore, the British experience does not appear to be markedly different from that of the US.

8.3 Share-ownership, affective commitment and employee turnover

8.3.1 Share-ownership and affective commitment

Employees in share-ownership workplaces do not have higher levels of affective commitment than their counterparts in workplaces without share schemes. This finding is robust, irrespective of the coverage or occupational distribution of the schemes or whether employees have participatory rights in these establishments. This thesis thereby challenges the view upheld by a majority of researchers that ESO schemes are associated with higher levels of affective commitment (Bell and Hanson 1989; Buchko1992; Goldstein 1978; Jochim 1979; Oliver 1984; Pendleton 2001; Poole and Jenkins 1990; Tucker et al. 1989; Wallace and Hanson 1984). Instead, the results emphasise the ineffectiveness of ESO schemes as an effective motivational tool, thereby supporting those who argue that ESO schemes are associated with unchanged (Dunn et al. 1991; French and Rosenstein 1984; Hammer and Stern 1980; Long 1978 and 1981; Marchington et al. 1994; Wilkinson et al. 1994) or lower levels of commitment (Keef 1998; Kruse 1984; Long 1982). Fundamentally, the results strongly question the claim that the most reliable and likely route through which ESO schemes impact upon performance is through enhanced affective commitment.

The findings generated in this thesis have several other implications for our understanding of the share-ownership and affective commitment relationship. At the very basic level, the results challenge Klein's (1987) intrinsic satisfaction model

which suggests that the physical ownership of shares fosters feelings of psychological ownership, resulting in higher levels of affective commitment.

The finding that lower levels of commitment are observed when a majority of employees are eligible, but not when a majority of the employees own shares, suggest that having majority-eligibility without majority-ownership can result in uncommitted employees in share-ownership firms. Therefore, the results emphasise the importance of distinguishing between coverage in terms of majority-ownership and majority-eligibility, while determining the effects of share-ownership coverage on affective commitment.

However, even when a majority of the employees own shares, higher levels of affective commitment are not observed in share-ownership firms. Assuming that majority-ownership is indicative of the financial attractiveness of the scheme, the results could challenge Klein's (1987) 'extrinsic satisfaction' model which suggests that financial rewards play an important role in enhancing commitment levels in share-ownership firms. However, the finding that Deferred Profit-Sharing Schemes (a purely financial incentive scheme) are associated with higher levels of commitment suggests that it is the share-ownership component rather than the financial rewards associated with these schemes that fail to motivate employees.

A more likely explanation for the results is provided by the theory of 'unmet expectations' which suggests that the lack of higher commitment observed in share-ownership firms is reflective of the expectations that these schemes raise but eventually cannot fulfil. Specifically, share schemes may raise expectations of greater employee involvement in organisational- and job-level decisions which may not be fulfilled, resulting in disillusionment and, subsequently, lower commitment. Therefore, this interpretation of the results advocates the theory of 'unmet expectations' in order to understand the share-ownership/commitment relationship (Kruse 1984).

However, the finding with higher levels of affective commitment are not observed even when employees in share-ownership firms have participatory rights suggest that allowing employees to participate in decision-making does not enhance employee

satisfaction with the scheme or engender feelings of ownership amongst employees in share-ownership firms. This result persists even when a majority of the employees own shares and have participatory rights. Therefore, the findings contradict the dominant view that the higher commitment levels in share-ownership establishments could be yielded when participation in decision-making exists (Kruse 1984). However, they add weight to the view that unchanged levels of commitment are observed even when share-ownership and participation in decision-making co-exist (Bakan et al. 2004; Dunn et al. 1991; French and Rosenstein 1984). In addition, the results challenge Klein's (1987) instrumental satisfaction model which emphasises the importance of participatory rights in reinforcing the feeling of ownership and fostering greater affective commitment amongst the employees in share-ownership firms.

However, the results cannot question the positive motivational effects of participatory mechanisms on employees. This is because the findings report a positive and significant association between participation in decision-making and commitment levels, thus suggesting that employees with participatory rights have higher levels of commitment than those without these rights. These beneficial effects of participation in decision-making seem to disappear when similar participatory rights are offered to employees in share-ownership firms (the relationship changing to insignificant or negative and significant). Therefore, the suggestion is that ESO schemes *per se* are not an effective motivational tool and giving employees participatory rights does not make any difference to the ability of these schemes to motivate employees.

A possible explanation is that the dissatisfaction of employee-owners with the schemes neutralise any positive motivational effects of having participatory rights. Previous research has shown that ESO schemes widen wage differentials instead of narrowing them (Dunn et al. 1991), thereby making the environment unsuitable for participation schemes to positively influence commitment levels. The wide wage differentials may be reflective of a lack of management commitment to the philosophies of industrial and economic democracy, thus having an adverse effect on employee perceptions of management commitment to the share-ownership philosophy. A negative view of management commitment towards these schemes has been acknowledged as a common cause of dissatisfaction amongst employees and

lower levels of affective commitment (Meyer et al. 2002). In addition, Rosen and Quarrey (1987) argued that the lack of managerial commitment to employee-ownership often prevents the formal participatory mechanisms from yielding the desired results (ibid.: 129). Therefore, it could be concluded that managerial commitment to the scheme plays a critical role in influencing affective commitment (Klein and Hall 1988).

Furthermore, it is shown that, irrespective of whether employees participate in job-level or organisational-level decision-making, higher levels of commitment are not observed in share-ownership firms. This challenges prior claims that the level of participation in decision-making is an important factor influencing the share-ownership/commitment relationship (Long 1979; Trewhitt 2000; Pendleton 1998 and 2001; Kruse 1984).

On the whole, the results strongly challenge the claim that ESO schemes impact upon performance through enhanced affective commitment. Instead, this thesis makes a strong case for investigating alternative routes through which these schemes can enhance performance.

8.3.2 Share-ownership and employee turnover

Attention is particularly drawn to the critical role played by lower levels of employee turnover in explaining the higher labour productivity observed in share-ownership firms. This recognises the multidimensional construct of the commitment concept previously ignored by most of the share-ownership and performance literature and emphasises how different dimensions of commitment have varying influences on the share-ownership and performance relationship.

It is also shown that the share-ownership/employee turnover route is associated with higher labour productivity but not higher financial performance. The different results for financial performance and labour productivity emphasise the need to distinguish between different measures of performance while explaining the mechanisms through which ESO schemes enhance performance. Fundamentally, there is a need to investigate other routes which would explain the higher financial performance

observed in share-ownership establishments. A plausible route could be the tax savings associated with the introduction of ESO schemes.

A further result is that ESO schemes are associated with lower levels of employee turnover. This finding lends strong support for previous studies which found that share-ownership firms have low employee turnover levels (Buchko 1992; Long 1980; Rhodes and Steers 1981; Wilson et al. 1990). However, this finding questions the wider applicability of Culpepper et al's (2004) view that ESO schemes are associated with higher attrition rates because they weaken feelings of continuance commitment towards the workplace. The findings of this thesis are based upon a nationally-representative sample of British firms across a range of industries (WERS98), whereas Culpepper et al.'s (2004) study was confined to a sample of pilots in the airline industry. Fundamentally, this thesis also challenges the generalisability of Culpepper et al.'s (2004) argument that financial rewards associated with stock ownership are more likely to encourage employees to leave rather than increasing the perceived costs of leaving the firm.

It is also shown that the levels of employee turnover in share-ownership firms do not vary significantly depending upon the proportion of employees owning shares. This suggests that there are possibly factors other than share-ownership coverage that mediate the strength of the share-ownership/employee turnover relationship. Possible influences are the size of individual financial rewards and accrued financial rewards versus pending rewards (Culpepper et al. 2004).

While ESO schemes are associated with lower levels of employee turnover, these schemes do not foster higher affective commitment. This challenges the dominant view that ESO schemes influence employee turnover by fostering feelings of affective commitment (Pierce et al. 1991). In fact, the findings direct attention to the 'golden handcuff' theory which suggests that the lower levels of employee turnover observed in share-ownership firms are primarily influenced by financial considerations. This theory argues that ESO schemes raise perceived costs of leaving the firm because the ongoing income associated with employee-ownership can be sustained only if organisational membership persists (Culpepper et al. 2004; Richardson and Nejad 1986). By advocating the 'golden handcuff' theory, this thesis emphasises the critical

role played by continuance rather than affective commitment in explaining the higher productivity and lower turnover observed in share-ownership firms. These findings endorse Culpepper et al.'s (2004) view that future research on ESO schemes and behavioural outcomes should extend beyond affective commitment by including other components of commitment as identified by Meyer and Allen (1997). In addition, this thesis makes a case for distinguishing between different components of commitment when attempting to explain the ESO/performance relationship. Furthermore, this thesis strongly advocates Meyer and Allen's (1998) three component model of commitment in any future study involving the effects of commitment on performance.

The higher labour productivity observed in the share-ownership firms can, to a large extent, be attributed to lower employee turnover. Higher labour productivity can therefore be achieved even if the employee decision to remain is primarily due to financial considerations. This challenges Luchak's (2003) argument that lower employee turnover induced by financial rewards results in the retention of unproductive employees, thus lowering labour productivity. Instead, this thesis advocates the firm-specific capital investment argument which suggests that reduced employee turnover enhances labour productivity by maximising returns from existing investments in human capital and encouraging greater investment in firm-specific capital (Blair and Kruse 1999; Richardson and Nejad 1986; Wilson et al. 1990).

Lower levels of employee turnover do not seem to translate into higher financial performance, thereby refuting a common argument that lower employee turnover boosts company profits by reducing retention and replacement costs (Phillips 1996 in Glebbeek and Bax 2004). A possible explanation for the results could be that lower employee turnover is bought at a financial cost which may neutralise the positive effects of productivity increases or cost savings associated with lower employee turnover (Leonard 1987). In the case of share-ownership firms, the financial cost of lowering employee turnover may be the cost of offering equity to employees free of charge or at a discount to the market price. Therefore, the findings suggest that lowering employee turnover through ESO schemes may involve some costs even though there may be benefits in terms of higher labour productivity. Fundamentally, the findings draw attention to the fact that, contrary to expectations, ESO schemes are not a costless exercise.

8.4 Limitations of this study

In common with all research projects, this thesis has both strengths and limitations. First, the cross-sectional nature of the data-set does not allow for establishing the direction of causality. Hence, there could be two interpretations of the positive and significant associations between share-ownership and organisational performance. The results could indicate that ESO schemes improve performance. Alternatively, it may be that high-performing companies are more likely to introduce these schemes. However, since ESO schemes are a relatively static phenomenon in comparison to performance, which changes more rapidly, it is more likely that the presence of share-ownership schemes impact upon performance outcomes rather than vice versa. Furthermore, there are strong theoretical arguments and increasing support from longitudinal studies that ESO schemes contribute to enhanced performance (Bradley et al. 1990; Goldstein 1978; Hyman et al. 1989; Iqbal and Hamid 2000; Long 1980; Rosen 1990; Rosen and Quarrey 1987; Rosen and Young 1991; Richardson and Nejad 1986; Park and Song 1995).

Second, there is some scepticism regarding the reliability of the performance measures which are based upon subjective evaluations of organisational performance by managers. It is argued that there might be a tendency for managers to overstate the performance of their companies in relation to industry averages. This critique points out potential limitations of the validity of the performance measures. Yet, there is sufficient evidence to support the use of these measures as adequate for the purposes of this research.

Machin and Stewart (1996) validated the performance measures by tabulating plant closure in 1984-1990 against the reported financial performance in 1984 (using the Workplace Industrial Relations Survey panel data for 1984 and 1990). They found that those establishments reporting below average financial performance vis à vis their competitors in 1984 were significantly more likely to have closed down between 1984 and 1990. This significant correlation clearly adds more weight to the validity of the performance measure (ibid: 220). Besides, the subjective measures are articulated as a useful alternative to objective performance measures which have limitations of

their own (Machin and Stewart 1996). There is a general lack of consensus regarding the appropriate objective performance measure (McNabb and Whitfield 1998) and reliance on a few selected performance measures can prove to be misleading. For example, share prices may rise because of future expectations rather than an actual increase in profits. A low return on assets may be due to significant capital investments made in a particular year, rather than low returns. A high return on equity may be due to high debt to assets ratio, rather than high returns.

Third, reliance on proxies for ESO schemes limited the possibilities for investigating how different aspects of share-ownership design influence organisational performance. For example, share-ownership coverage could only be studied with respect to the proportion of employees covered by the schemes without any knowledge of the size of individual shareholdings, and employee stake in the entire equity, therefore providing no direct measure for assessing the financial worth of the scheme. While this is true, majority non-managerial ownership is a useful proxy for the financial worth of the scheme since employees are unlikely to join unless they perceive ownership as being financially attractive.

Another limitation is that there was no scope to differentiate between different types of share-ownership scheme and test how they relate to performance. However, since the focus of this thesis was to investigate whether the principle of share-ownership contributed to improvements in performance, the existing measure sufficed. Nevertheless, differentiation between share-ownership schemes and their relative impact upon performance outcomes is an issue that deserves greater attention in the future.

The WERS 2004 data-set will address some of the limitations outlined above by introducing more objective performance measures and greater variations in the measurement of share-ownership.

8.5 Implications of research findings

The conclusions that ESO schemes improve organisational performance and that they operate through reduced employee turnover rather than enhanced affective commitment is likely to have implications outside the academic sphere.

First of all, the findings have implications for managerial practitioners and companies considering the implementation of a share scheme. The results would enable them to have a more realistic view of the expected benefits and the costs associated with the adoption of a share scheme, thereby influencing their decision to invest in a share scheme. Furthermore, they will have realistic expectations regarding the benefits associated with the ESO scheme. It is unlikely that they will perceive it as a magical cure for poor performance. Instead, and more appropriately, they may view it as a useful retention and recruitment device.

Second, the findings have implications for policy-makers who determine the incentives that should be given to encourage companies to adopt share-ownership schemes. When the mere existence of share schemes is no guarantee for boosting organisational performance, reducing agency costs, empowering employees and bringing about a more equitable distribution of wealth, policy-makers may wish to reconsider whether or not to encourage their adoption or to advocate tax breaks.

Third, the findings also have implications for HR policy, whereby one could assess the desirability of ESO schemes as a motivational tool vis à vis their effectiveness as a tool for attracting and retaining critical talent. Using financial incentives as a retention strategy runs the risk of retaining unproductive employees, even though the results do not indicate that this is the case. Nevertheless, in order to avoid an undesired outcome, decisions have to be made about whether the scheme should be broad-based or offered to a limited selection of employees only. Some decision regarding the criteria for the allocation of the schemes is also necessary; for example, whether the allocations of shares is determined by base salary, seniority, individual performance or a combination of these factors. The greatest challenge would be to use ESO schemes for enhancing labour productivity without having an adverse impact upon profit margins. Hence some thought might be given to the types of employees that the

establishments would seek to retain. If the schemes are directed towards retaining talent that is difficult to replace and critical for organisational success, then it might succeed in achieving the dual objectives of enhancing labour productivity and financial performance. This is because enhancing the productivity of key employees will have a more direct impact upon financial performance. Besides, if the replacement costs of these employees are high, it would also enable the organisation to save on these costs. Usually, these employees command high salaries, and the schemes could be used as a way of introducing a variable component to their total remuneration package, thereby minimising cash outflows and reducing the fixed cost of labour. This reduced cost is also likely to increase the profit margin, thereby improving organisational performance.

8.6 Issues for future research

This thesis makes a case for a shift of focus with regard to how the relationship between share-ownership and performance should be viewed. It stresses the need to de-emphasize the role of attitudinal factors and emphasise more strongly the relevance of direct behavioural outcomes, such as employee turnover, in enhancing organisational performance. Wider acceptance of this view requires further refinements of the results and key arguments presented in this thesis.

In order to gain further clarity that ESO schemes contribute to organisational performance rather than vice versa, there is a case for conducting a longitudinal analysis using a broad representative sample. The problem of causality can be addressed by using panel data, or by designing longitudinal studies with different samples. Qualitative data could add value by providing insights into the causal processes and help to resolve some of the inherent contradictions in the findings; for example, that share-ownership accompanied by Profit-Related Pay has a beneficial impact upon financial performance, but a detrimental effect upon labour productivity. These insights could contribute towards further refining the hypotheses which could be validated using quantitative analysis and drawing on a large nationally-representative sample such as the 2004 Workplace Industrial Relations Survey (WERS 5). A case is thereby made for encouraging a tradition of collaborative research employing both quantitative and qualitative analysis techniques.

The findings presented in this thesis can be refined in a number of ways. For example, more objective performance measures can be used as outcome variables to lend greater objectivity to the results. Differentiation between different forms of ESO schemes would help to shed light upon the relative contributions of different types of ESO schemes on corporate performance. More precise measures of share-ownership coverage, i.e. in terms of equity and value of shareholdings, will contribute towards a better understanding of the dimensions of share-ownership coverage that impact upon performance. This knowledge would also facilitate the design of a more accurate test for assessing the relative importance of three dimensions of share schemes (financial, ownership and participation) on performance outcomes. Furthermore, a detailed study of the design aspects of share schemes, e.g. vesting and allocation methods, is required. This would help to understand how factors intrinsic to the share-ownership schemes relate to organisational performance outcomes. Investigations in this area would enable practitioners to assess the costs and benefits associated with the schemes, and might even provide guidelines for designing an ESO scheme which would facilitate the achievement of desired performance objectives.

Some of the above issues, i.e. the objectivity of the performance measures and differentiation between the various types of ESO schemes, have been addressed in the 2004 Workplace Employment Relations Survey (WERS 2004). For example, the WERS 2004 data-set introduces objective performance measures for financial performance and labour productivity. It also makes a clear delineation between different types of ESO schemes.

This thesis paves the way for exploring non-attitudinal routes through which ESO schemes possibly impact upon performance. Therefore, there is a need to investigate the most plausible routes through which ESO schemes can impact upon financial performance. Testing the viability of the tax-related arguments would constitute a good point of departure for broadening the debate on how ESO schemes might enhance corporate performance.

Finally, the strong interest in share schemes and the focus on their impact on performance has neglected other important uses of share schemes, i.e. as an anti-

takeover device, in facilitating employee buy-outs and leveraging facilities, as an HR tool for attracting and retaining critical talent, and finally as an alternative to the pension plans. This gap presents yet another opportunity for future research which would be of relevance to academics and practitioners.

This thesis has contributed to a much needed demystification of the share-ownership concept and outlined ways to increase knowledge on the mechanisms by which share schemes operate. Improved knowledge would enable policy-makers and practitioners to make informed and pragmatic choices regarding incentives for the adoption and the nature of application of share-ownership schemes. Future research therefore has the opportunity to unlock much of the hidden potential of ESO schemes.

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Appendix 1: Share-Ownership and Organisation Performance: Summary of Key Studies

APPENDIX 1 Name & Result	Share-ownership Type & Performance measure	Methodology & Data Source	Sample size and Characteristics	Comments
Addison and Belfield (2001) Positive and significant	SAYE Discretionary or executive share option schemes Other types of share\ ownership Economic outcomes include: productivity levels, change in productivity, and change in employment . IR outcomes: Relations between management and employees Quit rate Absenteeism rate. EI defined as participation in decision making mechanisms.	After share-ownership study and compared to workplaces with no schemes. Estimation based upon ordered probit and logistic weighted least squares. Based upon the 1998 Workplace Employee Relations Survey. (WERS98) cross section data set. Similar estimation as that of Fernie and Metcalf (1995). But differs in the following respects: Variable definitions are not	Weighted sample.	Positive and significant association between share-ownership and productivity kevels unlike negligible effects reported by Fernie and Metcalf (1995). JCC associated with significant but negative productivity levels and change in productivity unlike Fernie and Metcalf who report a positive effect. Union recognition has a positive effect upon productivity change unlike Fernie and Metcalf who report a negative effect. EI initiatives: Briefing groups have a consistently positive association with productivity outcomes. Problem solving groups also have positive and significant productivity outcomes. Comparison to other FP schemes: Neither Profit related pay nor deferred profit sharing have any effect upon productivity outcomes. SAYE schemes are associated with better productivity outcomes but executive compensation is associated with reduced productivity levels.

APPENDIX 1 Name & Result	Share-ownership Type & Performance measure	Methodology & Data Source	Sample size and Characteristics	Comments
	Contingent pay is not included in the definition of EI.	always identical. Industry controls differ because WIRS3 follows the Standard Industrial Classification from 1980 and WERS98 follows Those from 1992. Additional controls used by Addison and Belfield.		
Addison and Belfield(2000) positive and significant.	Ordinal financial performance ranking	After share-ownership study. Baseline probit. Similar estimation as that of McNabb and Whitfield (1998) study. Differ on the following basis: Based upon the 1998 Workplace Employee Relations Survey. (WERS98). Industry dummies	Restricted to the trading stablishments. All data are weighted for sample inclusion. Approximately 2000 workplaces with. Approximately one fifth or 400 workplaces with share-ownership and nearly half or 1000 with profit related pay.	Financial participation is associated with improved economic performance like in the WIRS3. EI schemes: Representative participation or upward problem solving, fail to have any impact upon performance. Downward communication is not significant using the WERS 98 data unlike McNabb and Whitfield(1998) who found positive and significant financial performance outcomes. Other FP schemes: Employee share-ownership and profit related pay are complementary. Share ownership is more consistently and positively associated with financial performance as compared to profit related pay.

APPENDIX 1 Name & Result	Share-ownership Type & Performance measure	Methodology & Data Source	Sample size and Characteristics	Comments
		based upon the 1992 Standard Industrial Classification Survey instead of the 1990 SIC. Minimum workplace size is 10 employees as opposed to minimum of 25 in the WIRS 3. WERS 98 indicates Lower unionisation Increased international orientation Younger workplaces.		No negative influence of unions are reported.
Association of America (Year) Positive and significant		Longitudinal study.		Profitability improved on an average after setting up a share-ownership scheme. (Rosen 1983).
Blanchflower and Oswald	Subjective financial indicators	After share-ownership.	1,209 firms in the UK.	Employee share-ownership schemes had a negative sign with firm performance.

APPENDIX 1 Name & Result	Share-ownership Type & Performance measure	Methodology & Data Source	Sample size and Characteristics	Comments
(1988) negative	based on several difference measures of financial performance.	Multivariate analysis and probit. 1984 WIRS. Multivariate data analysis to test the link between profit related pay and organisation performance.		On the whole the sampled firms performed better than the industry average. *Advantages:* *Effects of unions and establishment size are considered as important factors influencing performance.* *Limitations:* *Measures of performance are subjective.* *However authors argue that they still provide an ordinal ranking.* *Causality could not be established.* *Difficult to draw a distinction between employee share-ownership and the deferred profit sharing schemes.*
Bloom (1985) Positive but imsignificant	Productivity effect of share-ownership.	After share-ownership study. Regression equation. Information souurce was from publicly available data sources. 1) Employee Plan Master File (EPMF). 2) Sandard and Poors Compustat primary,	Larger sample than Conte and Tannenbaum and Livingstone and Henry. Mainly publicly owned companies. Two measures of share-ownership coverage were estimated: Fracpart and Fracshares.	The productivity effect of share-ownership were positive but never statistically significant (Kumbhakar and Dunbar 1993:275). Fracpart was insignificant and some case it was negatively associated with performance. Fracshare had an insignificant and sometimes a negative association for some regressions. Therefore, Bloom found that productivity falls by 5-8% for every additional 10% stock owned by the employees. (1985:186 in Conte and Svejnar: 1987) *Limitations* *The sample consisted largely of TRASOPs (Tax credit ESOPs). The insignificant effect may be because the schemes were introduced predominantly to capitalise on the tax benefits. Hence, they were not able to reap benefits due to reduced agency costs. (Gamble:1998).* *Causality cannot be established.* *Firms that adopted share-ownerships may be different to those that did not adopt share schemes.* *Insignificant relationship can be attributed to the small proportion of shareholding for the*

APPENDIX 1 Name & Result	Share-ownership Type & Performance measure	Methodology & Data Source	Sample size and Characteristics	Comments
		supplementary , tertiary and over the counter databases, which contain operating data for many public companies.	Fracpart: fraction of employees owning ESOP shares. Fracshares: fraction of company shares owned by the ESOP.	*participants of the share schemes.* *Points towards the extent of share-ownership argument.*
Bradley et al. (1990) Positive and significant	Fully employee owned company through and employee ownership trust. Real pre tax profits Real sales Total employment	Compare with comparable conventional firms in the retail sector with respect to growth and sources of investment over 1970-1989.	John Lewis Partnership, one of the largest and longest surviving employee owned companies in the modern world. (retail sector). Began in 1864, and converted to employee owned in 1929. Full voting power to Partnerships trustees in 1950s.	A rigorous real growth in profits and sales over a 20 year period. No decline in real sales. Despite decline in employment levels in industry, John Lewis maintained steady employment growth. Decline in value added to sales ration because of increased competitiveness in the industry. Employee costs relatively constant at 60% of value added. John Lewis outperformed its main competitors in terms of factor productivity. Basic wages was highest on offer. Substantial bonuses average of 22% over 1988-89. Total remuneration much higher than competitors. Compared favourably with respect to working conditions and hours of work and welfare benefits. Allows John Lewis to select the best workers, in line with the efficiency wage argument. *Comments:* *Establishes the fact that for employee ownership to work several other factors need to be in place.*

APPENDIX 1 Name & Result	Share-ownership Type & Performance measure	Methodology & Data Source	Sample size and Characteristics	Comments
				It might be an example of a combination of good practices in a successful firm, employee ownership being one of them. *Open communication systems.* *Limitations:* *Difficult to assess the relative importance of share-ownership in determining its success,* *John Lewis has a unique organisational structure and it is clear that there are a cluster of policies like high wages, high benefits, profit sharing, employee ownership and open communication which contribute to its success.* *Hence not really comparable to other conventional firms or employee owned firms or firms with financial participation.* *Difficult to generalise the results to other firms in different industries.*
Chang (1990)	Stock returns	NCEO and Dow Jones News Retrieval service		Relationship a function of reason for setting up an ESOP. Supportive evidence for the management entrenchment theory.
Conte & Svejnar (1988) Positive and significant	Productive efficiency.	1987 study used a Cobb Douglas production function. The 1988 paper cast the analysis with a broadened translog function. OLS estimators used in both the studies.	40 US firms, plywood industry.	Extent of ownership stake is inversely related to the productivity of the firm. ESOT which holds the sample mean fraction of the company stock (12%) raises the productivity 9% above what it would be in the absence of an ESOT. (1990:166). Effect of share-ownership on productivity is positive at low and moderate levels of ownership but diminishes at high levels. Explanation in the management entrenchment theory by Park and Song. To illustrate, the authors found that an ESOT (Employee share-ownership trust) which holds the sample mean fraction of the company stock raises productivity 9% above what it should be in the absence of an ESOT.

APPENDIX 1 Name & Result	Share-ownership Type & Performance measure	Methodology & Data Source	Sample size and Characteristics	Comments
				Advantages: *Study acknowledges that share-ownership schemes are not introduced in isolation but are generally combined with other financial participation schemes.* *Addresses the issue of extent of ownership.* *Limitations:* *Small sample size. 21 ESOT firms.* *No justification for the selection of the 40 firms.* *Unclear whether the 40 firms were comparable in terms of size and othe dimensions.* *Time span of study and the measures of productivity are unclear.* *No pre and post share-ownership study.*
Conte & Tannenbaum (1978) Positive and significant	pre-tax profits to sales ratio	After ESOP study. Questionnaire & OLS regression.	Thirty employee ownership companies. Response rate: 30 out of 98 Total companies : 98 Stock Ownership plans: 68 firms Direct Ownership: 30 firms Employees in three quarters of the companies owned	Thirty companies were 70% more profitable than their industry counterparts. Only the non managerial employees increase the profitability and that other aspects of employee ownership such as managerial ownership and non managerial participation in decision making, either contribute negatively to profitability or do not matter. (1990:158). Only significant predictor of share-ownership coverage was the percentage of equity held by the non managerial employees. Whereas the other measures of ownership were negatively and insignificantly associated with profitability. 1% increase in non managerial ownership resulted in increases in profitability by 1% a very large effect. The more equity the workers own the more profitable the company. (1978:25) Amount of equity owned by the workers is more important than the percentage of workers covered by the equity. The increase in the equity owned by managers may have a negative effect if this increase is not accompanied by an increase in the equity owned by the employees. (1978:25)

APPENDIX 1 Name & Result	Share-ownership Type & Performance measure	Methodology & Data Source	Sample size and Characteristics	Comments
			half the equity. Various measures of ownership were used: Form of ownership Percentage of employees participating in the plan. Percentage of equity owned internally . Percentage of equity held by non managerial employees only. Whether the worker representatives sit on board.	However, greater proportion of employees covered by share-ownership is not necessarily associated with greater profitability. This could be due to the lack of association between the percentage of employees covered by the scheme and the percentage of equity held by the employees. Apparently, many companies that have relatively widespread employee ownership, in fact involve only a small proportion of the companies equity in such ownership. (1978:26) GAO during period of 1984-87 showed that the higher the degree of ownership, the greater the stakes of the employees in promoting improvements in corporate performance. The two participation variables, worker representatives on board and employee share vote, had small negative and insignificant correlations. (157:1988) Limitations: Causality could not be established. Did not control for variables affecting profits. Definition of employee share-ownership was quite broad. Doubtful whether the participation variables used accurately measure non managerial employee participation in decision making. (158 in Conte and Svejnar:1988)
Fernie and Metcalf (1995) Positive and significant	SAYE Discretionary or executive share option schemes Other types of share\ ownership Performance	After share-ownership study and compared to workplaces with no schemes. Estimation based upon ordered	Workplaces in the trading sector. (78% of total sample of 2061 workplaces with a minimum of 25 employees). Weighted sample.	Financial participation like deferred profit sharing schemes or share-ownership schemes is associated with favourable productivity outcomes but appear to have a negligible effect upon the industrial relations climate. Surprisingly share-ownership is associated with higher turnover rates. Compared to workplaces with no schemes, workplaces with SAYE schemes have inferior on the job performance and workplaces with executive schemes have superior job performance.

APPENDIX 1 Name & Result	Share-ownership Type & Performance measure	Methodology & Data Source	Sample size and Characteristics	Comments
	measures: Economic outcomes include: productivity levels, change in productivity, and change in employment . IR outcomes: Relations between management and employees Quit rate Absenteeism rate. EI defined as participation in decision making mechanisms. Contingent pay is not included in the definition of EI.	probit and logistic weighted least squares. 1990 Workplace Industrial Relations Survey (WIRS 3) cross section data set. Response rate 83%		(1995:400) Trade union recognition is negatively associated with the productivity outcomes and are associated with lower quit rates. Joint consultative committees have either no association or a very weak association with the outcomes. Two way communication associated with favourable IR climate and is better for the industrial relations climate than the one way communication. Problem solving groups exert a favourable influence upon performance and quits. (1995:398) Employee Involvement workplaces are associated with the highest productivity outcomes but score badly in terms of industrial relations climate. Authoritarian workplaces with neither employee involvement nor unions score lower than the other types of workplaces with respect to productivity outcomes but are associated with better industrial relations outcomes as employee involvement workplaces. Collective bargaining workplaces compare unfavourably to the employee involvement workplaces. It has below average economic and industrial performance outcomes, with the exception of labour turnover. This may be because the trade unions succeed in successfully addressing employee grievances. Other FP schemes: Profit related pay has a positive and significant association with productivity outcomes. Deferred profit sharing schemes has a detrimental effect upon labour productivity levels. *Limitations:*

APPENDIX 1 Name & Result	Share-ownership Type & Performance measure	Methodology & Data Source	Sample size and Characteristics	Comments
				Causality. *Some outcome variables are subjective while other are objective.*
Fitzroy and Kraft (1986) Positive and significant	Worker ownership Shares. Return on Capital.	Simultaneous WLS Tobit Estimates.	65 medium sized firms metal working firms in Germany.	There is a strong effect of profit sharing on profitability. However, profitability appears to have no impact upon profit sharing. Hence there is no evidence to suggest that high profit companies also have higher levels of profit sharing. Firms use more profit sharing if their workforce is dominated by skilled blue collar workers. Rule out the efficiency wage arguments. Recognised union has a positive association with firm performance. Level of technology and competition are also significantly associated with firm performance. *Limitations: Some of the results could be peculiar to the German experience. The German model is different from the Anglo Saxon Model.*
Gamble (1998) mixed	Financial performance indicators: Return on assets, return on equity, return on sales, operating return on assets, operating return on equity, operating return on sales.	NCEO listings of public share-ownership schemes. Compustat industrial data base.	179 publicly traded ESOP firms. 147 of the firms adopted share-ownership schemes after 1986.	Relationship between share-ownership and financial performance and the moderating effects of the federal tax\incentives on the share-ownership schemes. share-ownership schemes established prior to the passage and implementation of TRA had significantly greater improvements in the financial performance than the share-ownership schemes formed after the passage of the act. Share-ownership companies fared better than the Non share-ownership counterparts in all the six financial indicators. But groups that introduced share-ownership after TRA showed a decline in profitability. Pre TRA share-ownership schemes that hold dominant stock holder positions have had even

APPENDIX 1 Name & Result	Share-ownership Type & Performance measure	Methodology & Data Source	Sample size and Characteristics	Comments
				greater success. Perhaps the Pre TRA share-ownership schemes were seeking to reap benefits through reduced agency costs as compared to the post TRA share-ownership schemes which focused on tax benefits. Findings provide support for labour related arguments rather than the tax related arguments. It also draws attention to the need to have various other factors in place in order to reap profitability advantages from share-ownership. *Advantages:* *Reliable data source.* *Good financial indicators.* *Limitations:* *Difficult to compare Pre TRA and post TRA firms since the cut off point for measuring performance is different. The sample size for the post TRA firms is much larger, the performance indicators may be brought down due to certain extreme cases.* *There may be endogenity bias, i.e. the already highly performing companies may be the ones to implement share-ownership schemes when the tax benefits were not available* *Firms not selected at random so selectivity bias.* *The post TRA firms might have used the savings to invest in capital, hence broadening their asset base, resulting in a lower ROA. Lower ROA may not indicate declining profitability, rather an increased asset base.* *Lack of information on the implementation of the share-ownership schemes.*

APPENDIX 1 Name & Result	Share-ownership Type & Performance measure	Methodology & Data Source	Sample size and Characteristics	Comments
Goldstein (1978) Positive and significant	Employee take-over in December 28,1973. 49% of employees are shareholders. No single employee should own more than 10,000 shares. Almost half of the employees own whole of the issued capital of the parent company.		Hart of the west incorporated on November 27,1973. A western Australian company whose main products are solar hot water systems and it manufactures many other metal products. (264) Employee owned.	Dramatic financial recovery after employee take-over in 1973. Attributed to cessation of financial interference by original parent company and higher employee morale. Operating profits: 1973-74: $42,329. 1974-75: $404,212. 1975-76: $278,420. 1976-77: $(397,610). Loss attributed to major investments in pant and machinery and automation of the plant.
Iqbal & Hamid (2000) Positive and significant	Min 5%, max 75% ownership Operating performance Stock price returns.	Cross-sectional and longitudinal (1988-1998) NCEO & S&P up to 1988	76 ESOP and 73 control firms.	Operating income increased 119% for ESOP firms and 3% for control firms. Operating income per employee increased 52% for ESOP and decreased 3% for NESOP. Operating performance improves following the adoption of an ESOP. ESOP Firms with large increases or decreases in stock prices show improvements in operating performance.
Jochim,T (1979) Weak positive asociation	Profit levels. At least 50% equity owned by the employees. Direct ownership and ESOP firms.	After ESOP study. Correlation regression analysis. Report prepared by Survey Research Center of the	30 Direct ownership firms and 68 ESOP firms. Moderate size firms with about $17 million in sales and	Employee ownership improves profit and productivity, worker and management attitudes and satisfaction. Results stronger for DO as compared to ESOP. The 30 direct ownership firms had profit levels slightly higher than similar conventional firms in industry.

APPENDIX 1 Name & Result	Share-ownership Type & Performance measure	Methodology & Data Source	Sample size and Characteristics	Comments
		University of Michigan Development Administration of the Department of Commerce. Companies with direct ownership versus those without.	200 employees for DO and $40 million in sales and 400 employees in ESOP firms.	The greater the percentage of worker ownership, the greater the profitability. Profitability unrelated to the percentage of worker participation. Increasing employee incentive was dominant reason for ESOP adoption followed by tax benefits. Whereas employment i.e. saving or creating jobs was dominant reason for DO adoption. *Limitations:* *Small sample size.* *After ESOP study and correlation analysis does not reveal causality.* *No indication of whether the profitability levels are significantly different from the no employee ownership firms.* *Nature of firms or industry is not revealed.* *Focus on Management view rather , and no representation of employee perspective.*
Jones and Kato (1993) Positive and significant	Value Added	Use of production function; generalised Cobb-Douglas; Kmentas approximation; translog funtion. Dataset by merging two databases: (i) ESOP data assembled by Japans security research institute	Enterprise level data for 543 Japanese manufacturing firms in 1984. Three measures of share-ownership coverage: STAKE: the average value of the capital stake owned by the ESOP per ESOP	Positive and significant correlation between the productivity outcome with average value of capital stake owned by the ESOP per ESOP participant and with greater participation of employee in the ESOP. ESOPs depress productivity for only 3% of the sample. The coefficients on STAKE and MEMBER are positive and statistically significant. However the coefficients for SHARE are negatively and statistically significant. Hence the proportion of total shares held by the ESOP has a negative and statistically significant association to productivity. This result suggests that the positive morale effects of ESOPs through participation and influence in decision making are probably not important in Japanese ESOPs, and tend to favour the view of the theorists who suggest that these institutional arrangements will lead

APPENDIX 1 Name & Result	Share-ownership Type & Performance measure	Methodology & Data Source	Sample size and Characteristics	Comments
		1985 Survey of all publicly held companies. (ii) The corporate accounting data furnished for all publicly held manufacturing firms by the Tokyokeizai Shinpoza. (japans leading puvblisher business and economics and supplier of various databases).	participant or value of individual shareholdings. MEMBER: the participation rate in the ESOP or the proportion of employees who participate in the ESOP. SHARE: The proportion of total shares owned by the ESOP.	to management shirking. (1993:342). Overall conclusion: Overall effect of ESOP is positive. Positive effects are felt most strongly and clearly with respect to those dimensions of ESOP that are likely to provide positive incentives to the non executive workforce through stronger interest alignment and involvement of non-executive employees. (1993:343). *Limitations:* *No causality.* *No control groups other than age and other industry dummies, so the share-ownership variables might be picking up effects of other variables.*
Kruse (1992) Positive but insignificant	Financial indicators.	Longitudinal study. Compustat data and Form 5500 pension plan data from the Federal Government.	Large representative sample of publicly traded companies.	A positive increase in productivity for profit sharing companies in the manufacturing and non manufacturing sector. The positive increase more pronounced for the non manufacturing sector when tested for the proportion of employees covered by profit sharing. share-ownership schemes showed positive though statistically insignificant link with performance measures in both the manufacturing and the non manufacturing sectors. Advocates the case for testing impact of extent of ownership on the organisational performance.

APPENDIX 1 **Name & Result**	**Share-ownership Type & Performance measure**	**Methodology & Data Source**	**Sample size and Characteristics**	**Comments**
				Advantages: *Longitudinal study.* *Financial measures are detailed.* *Well represented sample.*
Livingston and Henry (1980) negative	profitability	After share-ownership schemes. Multivariate analysis.	51 firms with share-ownership schemes compared to 51 Non employee share-ownership firms.	The profitably for the Share-ownership firms was less than the non share-ownership counterparts. *Limitations:* *The sample was initiated between 1916 to 1966, doubtful whether they were ESOPs. They were probably share purchase schemes.* *They did not enjoy the tax benefits unlike the schemes introduced later.*
Long (1978) Positive and significant	Employee buy out. 70% of the firms employees Now hold all of the company's stock. Employee representation at the board. Stock price appreciation and profits. Further 70% of the non managerial employees own shares.	Questionnaires administered 6 months subsequent to ESOP	Medium sized regional trucking firm.	50% stock price appreciation since setting up ESOP. Co showed considerable profit compared to the losses suffered in the last 5 years.
Long (1981)	Employees allowed to purchase upto	Longitudinal study. 7 months prior to	Electronics firm in Western Canada.	Share prices increased substantially from $1 to $1.50 (June1979) and $2.10(May 1980).

APPENDIX 1 **Name** **&** **Result**	**Share-ownership Type & Performance measure**	**Methodology & Data Source**	**Sample size and Characteristics**	**Comments**
Positive and significant	1/3 rd of company voting stock at a price considerably below its assessed book value. 83.3% of those eligible purchased shares. Employees have the right to elect three of the nine member board of directors. Quarterly employee shareholder meetings are held. Share prices. Number of employees	share-ownership, 7 months after and 18 months after share-ownership. Questionnaire to all employees. Case study May 1978.	Recently converted to partial employee ownership. (150). Response rates of Wave 1; 93.6% Wave 2: 84.3% Wave 3: 82.3% The firm was growing rapidly during time of study.	Number of employees increased from 150 to nearly 300 between June 1978 and June 1980.
Long(1980) Mixed but mainly positive and significant	Broad based employee ownership. Trucking company: wholly employee owned . Knitting mill: 70% or largely	Before and after share-ownership study. Few months before share-ownership schemes and 6-8 months after share-ownership purchase	Medium sized regional trucking firm in western Canada. (165 employees) Unionised. A knitting mill located in the north eastern US. (120 employees)	Employee Turnover: Trucking firm: 30% decline and restricted to the stock owners. Knitting mill : slight decline from 3.9% to 1.7%. Furniture mill: no appreciable change. Grievance rate : Trucking firm: sharp decline. Knitting . Furniture firm: no change.

APPENDIX 1 Name & Result	Share-ownership Type & Performance measure	Methodology & Data Source	Sample size and Characteristics	Comments
	employee owned. Declined to 30% within several months of employee ownership. Furniture firm: 30% or partly employee owned. Non Managerial ownership: Trucking firm: 45% Knitting firm: 15% Furniture firm: 65% All stock carries	18- 20 months after share-ownership purchase. Field observation Interview Techniques Collection of objective data. Knitting mill and furniture firm: Response rate more than 90% Trucking firm: response rate of 50%.	Library furniture manufacturer in the north eastern US. (200 employees) unionised) Participation and communication: Greatest employee representation in the broad of the trucking firm. Trucking firm: monthly board meetings. Monthly profit & Loss statement. Substantial increase in employee participation in decision making. Located in comparatively prosperous area. (5-6% unemployment) Knitting firm: 5 times	Quality of output: Trucking firm: 60% decline in customer complaints. Knitting mill: scrap loss declined from 1.5% to 0.5 %. Could be attributed to installation of new capital equipment. Profits: Losses in Trucking company and knitting mill prior to purchase and consistently profitable after purchase showing significant profits in the two years after purchase. Furniture firm: marginally profitable prior to purchase showed some increase in profitability subsequent to purchase. Share prices: Trucking company: 300% of the initial levels. Knitting mill: 252% of initial levels. Furniture firm: not much change. Proportion of stock held within the firm is more important than proportion of employees holding the stock (1980:736). *Limitations;* *The three firms not strictly comparable.* *Difficult to generalise.* *Outcomes could be consequence of the specific firms or the specific industry.* *No clear reason as to why those three firms were chosen.* *What happens after 18 months? Is that a sufficient time to determine effects of share-ownership.* *Do the profits after two years adequately represent employee share-ownership outcomes or other*

APPENDIX 1 Name & Result	Share-ownership Type & Performance measure	Methodology & Data Source	Sample size and Characteristics	Comments
	voting rights and profit rights. Performance measures: Turnover Worker productivity Waste and scrap losses Changes in stock price Profitability Grievance rates Attitudinal measures: Organisational identification Job satisfaction Motivation Co operation Participation and influence.		a year. No regularised system of communication with employees. Slight increase in employee participation in decision making. Located in economically depressed area. (13% unemployment) Furniture firm: 5 times a year. Newsletter published. No change. Situated in economically depressed areas. (13% unemployment)	*changes like PDM introduced alongside employee share-ownership schemes.* *Selectivity bias and difficult to attribute changes to employee ownership.* *Financial indicators are not adjusted for industry averages.*

APPENDIX 1 Name & Result	Share-ownership Type & Performance measure	Methodology & Data Source	Sample size and Characteristics	Comments
Maudlin (1999) Positive and significant	Growth in sales per employee	Pre and post ESOP and longitudinal. (1986-1991). For firms introducing ESOPs in1988 or 89. Department of Labour form 5500's. Blasi and Kruse work classifying publicly held ESOP by firm Objective.	61 firms. Employee benefit ESOP firms (31). Finance ESOP firms (30).	Reason for setting up an ESOP affects ESOP performance relationship. ESOP used for employee benefits with no apparent finance objectives showed significant increase in benefits. ESOPs for corporate finance: Significant decrease in benefits. Growth in sales is positively related to ESOPs when total retirement plan contributions are increased. ESOPs for employee benefits increase the total retirement plan contributions.
McNabb and Whitfield (1998) Positive and significant	Ordinal financial performance ranking	WIRS3 (Workplace Industrial Relations Survey) Similar to Blanchflower and Oswald(1988); maximum likelihood univariate probit model.	1990 survey of establishments in Britain restricted to the trading sector.	Both the presence of financial participation schemes at the workplace and the use of a scheme enhancing downward personal communication between management and employees are both strongly and positively associated with financial performance. (181:1998) Employee share-ownership schemes has a positive and significant association in firms that do not have profit related pay. share-ownership schemes has a positive and significant association with financial performance when introduced in firms with downward communication schemes. Negative impact on financial performance when introduced in firms without downward communication. Contradicts Blanchflower and Oswalds (1988) findings and establishes the importance of effective communication systems in determining the success of a share-ownership scheme.

APPENDIX 1 Name & Result	Share-ownership Type & Performance measure	Methodology & Data Source	Sample size and Characteristics	Comments
				Limitations: *Inability to establish the direction of causality. Kruse suggests that the previous profitability determines the firms decision to introduce a share-ownership scheme.* *Selectivity bias*
NCEO (1986) Positive and significant	Growth rate.	Before and after share-ownership study analysed over 5 years. Longitudinal	45 share-ownership companies.	The share-ownership companies grew faster than their competitors before setting up the share-ownership schemes. The difference in the growth rate was even greater after setting the share-ownership schemes. (Rosen and Young :1991).
Park and Song (1995) Mixed	Long term measures of performance. Tobins q ration; m/b ratio and leverage controlled ROA.	Before and after study. Information from Wall Street Journal and Dow Jones News Retrieval Service. (DJNRS). Over a period t-1 and t+3. Regression analysis.	232 Share-ownership firms.	The performance increases are present only for the firms with large outside block holders. (1995: 52). For firms without large outside blockholders: No comparable improvement in performance. Further, greater the fraction of ownership of share-ownership schemes the less the performance increases. (1995: 52). The explanation for the complex relationship between extent of share-ownership and performance lies in the management entrenchment theory. *Advantages:* *Performance measures are long term.* *Time period for sampled firms (1979 to 1989) captures significant tax reform acts.* *Limitations:* *Does not compare Share-ownership firms with non Share-ownership firms.* *Why is 3 years chosen as long term measure? Definition of long term differe from one industry to another.*

APPENDIX 1 Name & Result	Share-ownership Type & Performance measure	Methodology & Data Source	Sample size and Characteristics	Comments
				Control variables for regressin analysis were unusual and no justification provided.
Pendleton (1997) Positive but weak association	SAYE. Financial performance as reported by managers and based upon a variety of financial performance indicators. Labour productivity.	After ESOP study. 1990 Workplace Industrial Relations Survey (WIRS3). (cross section)	591 workplaces in manufacturing. Of these: 232- no schemes 125-with share schemes 78- both. Compare workplaces with no schemes at all, those with SAYE but n cash scheme, those with cash schemes only and those with both cash and SAYE schemes.	There is a positive but weak association between presence of financial participation and better than average performance but the meaning of the association is unclear due to inability to establish direction of causality. Workplaces with any form of financial participation schemes claim that their labour productivity performance has improved compared to three years ago but the difference is not significant compared to the non scheme workplaces. However, there is some evidence from the WIRS 3 panel survey that financial participation is an antecedent of performance. (1997:109). Related findings: Financial participation serves as a substitute when routine monitoring is weakly developed. (1997:109) Financial participation is often bundled with other participation in decision making schemes. Workplaces with share based financial participation schemes are clearly more participative than the workplaces without financial participation. (1997:111). Higher levels of median pay reported for workplaces with cash schemes and SAYE schemes. Significant differences in labour turnover for workplaces with share-ownership schemes as compared to those that do not have share schemes. Lower levels of turnover at the share-ownership workplaces. Little evidence to show that share-ownership is introduced for incentivising employees.

APPENDIX 1 Name & Result	Share-ownership Type & Performance measure	Methodology & Data Source	Sample size and Characteristics	Comments
				Union density and financial participation is positive. *Limitations:* *Inability to establish causality.* *Subjective measures of performance.*
Pugh et al. (2000) Positive and significant mainly in short term	Financial indicators; Net profit margin, Asset turnover, Debt to Assets, Return on Assets, Return on equity, Labour cost to sales.	Before and after ESOP study using long term industry adjusted financial indicators for years: t-1 to t+4 i.e. four years subsequent to the implementation year.	183 firms that adopted ESOPs. Source: Wall Street Journal Index, Non Majority Employee Firms Report. Financial data from 1994 Compustat Industrial Tapes. Period ; 1980s to 1990s.	Short term improvement in the performance indicators. Year of ESOP implementation: Positive and significant increase in profit margin and return on assets. Positive association for asset turnover and return on equity. Initial decline in labour costs. Long run: Some of the financial indicators increased even in the long run, but only for a those firms identified as takeover targets. e.g. profit margin continued to be positive and statistically significant upto the third year after ESOP implementation. Return on Equity was particularly positive and significant in the third year after ESOP implementation. Might have to do with high leverage for that year. No evidence to show that share-ownership schemes lead to a decline in profit margin. Labour costs increased. Conclusion of authors: However, there is nothing to suggest that ESOPs result in a permanent improvement in company performance. Furthermore there is some evidence of underperformance of company shares. (2000:179).

APPENDIX 1 Name & Result	Share-ownership Type & Performance measure	Methodology & Data Source	Sample size and Characteristics	Comments
				Advantages: Large sample size, reliable data source, long term performance indicators and large number of financial ratios. *Limitations;* *Some findings were not explained by the authors e.g. the sustained increase in net profit margin in the first three years.*
Quarrey et al. (1986) Positive and significant	Sales growth and employment growth, market value and accounting based returns.	Pre and post share-ownership schemes adoption.	30 share-ownership schemes and 292 non share-ownership companies.	share-ownership companies have higher performance than non share-ownership companies and the difference is higher post adoption of share-ownership schemes as compared to pre adoption. Post adoption employment growth difference between share-ownership schemes and non Share-ownership firms was 6.52% higher than the pre adoption difference. Post adoption sales growth difference was 7.09% higher than the pre adoption sales growth difference. Significant at 1% level. Share-ownership firms outperform Non Share-ownership firms in terms of sales growth, growth in employment, market value and accounting based returns. Neither voting rights nor board representation was correlated with any of the performance measures, but participation groups were strongly correlated with them.
Ramsay et al (1989) Positive and significant	Broad based ESOP for full time and part time staff. Part of an integrative participatory	12 interviews with the Brewery Council conducted. 6 white collar and 6 manual workers.	Norbrew, long established brewing concern in North England. (1700 staff with 1,000 working	Sales turnover increased from £85 in 1981 to £145m in 1985. Profits rose from £10m to £15m. Share prices trebled in value. Changes other than share-ownership was being introduced e.g. increased competition in the

APPENDIX 1 Name & Result	Share-ownership Type & Performance measure	Methodology & Data Source	Sample size and Characteristics	Comments
	philosophy. Objective was to generate positive employee attitudes. A little over 10% of eligible workforce actually participated. Share prices and profitability	500 questionnaires to the eligible employees. Objective questionnaires asking for facts.	part time). Response rate for questionnaire was 20% very low.	market and all encompassing participation programme. Limitations: Causality is an issue. Cannot be attributed to share schemes particularly when the % participating was really low.
Richardson and Nejad (1986) Positive and significant	Stock prices.	Companies with share-ownership schemes versus those without share-ownership schemes. Before and after share-ownership study. Correlation analysis.	41 firms in the multiple stores sector of the stock market. 10 of the 41 firms have some form of employee share-ownership schemes before the 1978 tax legislation. 14 firms introduced the scheme after 1978. By 1984 , 23 of he firms were operating at least one of these schemes. Further, the sample divided into	Greater annual returns for the companies with schemes portfolio as compared to those without the schemes. The mean of the with schemes portfolio becomes significantly greater than that of the without schemes portfolio at the 10% level of confidence. Average share price increase per year: 26%: 'enthusiastic participators' 15% : traditional firms 19% : cautious participators. Average share price increase over the entire period of 1979-1984 was: 158% : enthusiastic participators 53% : traditional firms Difference significant at 5% level.

APPENDIX 1 Name & Result	Share-ownership Type & Performance measure	Methodology & Data Source	Sample size and Characteristics	Comments
			enthusiastic participators and the Cautious participators. Enthusiastic participators: 8 companies introduced share-ownership in a pioneering fashion and introduced share-ownership schemes before the 1978 legislation Cautious participators : 15 companies that had some form of share-ownership after 1978 legislation and concentrated on the executive share option schemes.	Initially financial participation seems to depress share prices and then subsequently causes them to rise faster than average. *Interpretation:* Might suggest that *Limitations:* *Small sample of firms in a sector suited for the share-ownership performance.* *Would such benefits be reaped in a different sector.* *Why 6 years*
Rosen (1990) Positive and significant	Fully employee owned, buy out Profits per tonne sold.	After ESOP, 5yrs and other companies in industry. (1982-1988)	Weirton Steel Employee take over in 1982. In 1989 Weirton steel went public and	ESOP , participation and good communication. Substantial and sustained increase in profits and other performance indicators subsequent to profit sharing. the performance benefits could be attributed to the steel industry which was going through a rebound. However, on adjusting for industry averages , it was clear that over 1982 – 1988 Weirton Steel showed performance that was the best in the industry.

APPENDIX 1 Name & Result	Share-ownership Type & Performance measure	Methodology & Data Source	Sample size and Characteristics	Comments
			employees had a substantial stake in the company.	
Rosen and Klein (1983) Positive and significant	Employment growth.	After share-ownership schemes and adjusted for industry averages	43 Share-ownership firms.	Employment growth for the Share-ownership firms 2.78% higher than the corresponding industry averages. (1998:531).
Rosen and Quarrey. (1987). Positive and significant	Sales growth and employment growth.	Pre and post share-ownership study. 5 years before and 5 years after.	45 share-ownership schemes and control group of 238 non Share-ownership firms (matched by firm size and industry).	Share-ownership firms have 1.89 % faster growth in sales and 1.21% faster growth in employment than the control group prior to share-ownership schemes implementation. After share-ownership schemes implementation: Share-ownership firms outperformed the control groups at the rate of 5.4% in sales growth and 5.05% percent in employment growth. 73% of the share-ownership schemes sample significantly improved performance with regard to sales and employment growth during a five year period immediately following the share-ownership schemes implementation. (1998:531). Regression equation was also conducted with various control variables and : Extent of share-ownership was not correlated with the performance variables. Perceived influence and the existence of participation groups were significant and correlated to the performance variables. *Limitations* *Employment and sales growth are only weakly correlated to organisation performance.* *High sales growth could be fuelled by increasing market demand and there is no information on industry averages.*

APPENDIX 1 Name & Result	Share-ownership Type & Performance measure	Methodology & Data Source	Sample size and Characteristics	Comments
				High employment growth may be an outcome of high sales growth.
Russell et al. (1979) insignificant	Employee owned companies Productivity	Worker owned firms versus non worker owned firms.	6 worker owner firms . The sample of non owners can be divided into:241 non shareholding employees from the 6 worker owned refuse collecting firms. 162 employees of 7 conventional private refuse collecting companies; 142 workers from four municipal refuse departments.	Worker owned firms are more participative but in situations where the rank and file employees are not included, it can take on an autocratic character. Even though the worker owners worked more conscientiously than the non worker owners, there was not much difference in the productivity levels.
Sesil et al. (2002) Positive and significant	Broad based (greater than50% of employees covered) Total shareholders returns Tobin's q Value added per	Cross section & Panel NCEO & Standard and Poor Compustat Data	229 New economy firms	Total cumulative shareholder returns For investing from share-ownership firms were higher than from non-share-ownership firms. share-ownership firms outperform NSO in terms of value added. Tobin's q did not change significantly over time, firms with higher Tobin's q adopted the stock options. No clear evidence that SO outperform NSO in terms of R&D.

APPENDIX 1 Name & Result	Share-ownership Type & Performance measure	Methodology & Data Source	Sample size and Characteristics	Comments
	employee No of patents applied for and granted			Limitation: Valid mainly for publicly traded companies and cannot be applied to small privately held companies
Sockell (1985)	Employee owned. Shelver: Employee owned in September 1976 through direct purchase. Carriers: Employee owned in July 1976 through direct purchase. Bedding: January 1977 Transfer via an ESOT. Sales, profits and size of employment.	Surveys and semi structured interviews. Data supplemented by information collected from company financial, personnel and grievance records. Summer 1980.	Three employee owned companies. Shelvers: manufacturer of high quality wooden furniture to be used in the library. (NY) (140) Unionised. Carriers: (founded in 1950) common carrier of motor freight. July 1976 employee owned. (160). No union. Bedding: Founded century ago. Manufacturer of high quality woven bedspreads. (600) Unionised.	Shelvers: Profits in 1976 : $315,000. Losses In subsequent years. Carriers: Losses in 1976: $83000. 1977: $320,000. 1978: $55,000 1979: $70,000. Broke even in 1980. Bedding : Dramatic decline in profits from 1973 $600,000 1978: $8,000. 1979: $200,000. Steady decline in levels of employment in all three firms.
Wallace and	Long term and	Pre and post share-	48 firms.	The large asset turnover in the year subsequent to setting up a share-ownership scheme,

APPENDIX 1 Name & Result	Share-ownership Type & Performance measure	Methodology & Data Source	Sample size and Characteristics	Comments
Worrell (1994) insignificant	short term performance measures. Short term: Stock returns Long term: ROA, profit margin, asset to turnover ratio and debt to turnover ratio.	ownership study and adjusted for industry averages. t-1 and t+2 years.	Sample restricted to the companies in the New York or American Stock exchange and those share-ownership schemes creations announced in the Wall Street journal. Only share-ownership schemes created for purposes of employee benefit were considered.	disappears when adjusting for industry average. T+2 years: Share-ownership firms are less profitable than average. However none of the changes are significant after adjusting for the industry averages. Only ROA and asset turn over is farther below the industry average in the year's t+2 as compared to t-1. *Advantages:* *Careful selection of sample based upon reason for setting up share-ownership schemes.* *Longitudinal study.* *Study took into account the variability of stock prices in the market unlike other studies which overlooked the risk element.* *Limitations:* *Sample is small and apply to a select 48 firms, further reduced after excluding the share-ownership schemes which were formed for for reasons other than employee centred reasons.* *share-ownership schemes are not introduced with a singular objective in mind but a variety of objectives.* *Why 2 years?* *No explanations provided as to why stock market responded positively to share-ownership schemes announcements and yet profitability failed to increase.* *Specialised sample fails to establish generalisability.*

Appendix 2: Share-Ownership Schemes and Employee Attitudes: Summary of Key Studies

APPENDIX 2 Name	Type of share-ownership scheme	Methodology & Data Source	Sample size and Characteristics	Comments
Marchington et al (1992)	Profit participation as part of EI measure. (80% employees eligible)	After share-ownership schemes Of EI initiatives	Browns woven carpets; a private family owned Midlands textile manufacturer	Industrial relations have improved, but employee attitudes not more positive. They see through management objective.
Marchington et al. (1994)	Profit sharing schemes/ Share ownership schemes.	Commitment measured after 5 yrs Companies with profit sharing with those that did not have profit sharing. Essentially comparing EI initiatives with respect to the context in which these initiatives are introduced.	Sample of 6 . 3 companies that displayed positive attitudinal outcomes. i.e. Japanco, Photochem and Computerco. 3 conpanies that had a negative attitude towards EI schemes and displayed unfavourable employee attitudes. e.g. BuSoc, Northern Shoe and Southern Shoe. Positive trio: Japanco: subsidiary of a Japanese based multinational heavy engineering company. 400 employees. Wide range of EI techniques. Photochem: Chemicals manufacturer. 1400 employees in establishment studied. Wide range of EI techniques. No share-ownership.	Japanco, Photochem and ComputerCo employees displayed a very positive attitude towards their management and the future of the company and expressed confidence in the success of the EI initiatives. Whereas the opposite was true for the BuSoc, Norhern Shoe and Southern Shoe companies. These results could be attributed to the contextual factors. For e.g. The positive trio had a high or growing market share and a growth in the employment as well as a consultative or informal management style. Only Photochem showed a slight decline in employment. Whereas the negative trio were faced with a stable or declining market share, intensive competition and a decline in the employment rate. Except for Southern shoe, the other two adopted an autocratic management style. At BuSoc nearly all respondents suggested that employee share-ownership did not contribute to positive commitment levels. This of course could be attributed to the low financial value of share

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			Computerco: Computer distribution. 700 employees in each of the 2 establishments tested. Only 1 EI initiative i.e. the briefing system. No share-ownership. Negative Trio: BuSoc: Large Building Society. 34 in each of the 2 establishments tested. Northern Shoe: Footwear. 500 in each of the 3 establishment studied. Southern Shoe: Footwear. 600 in each of the 2 establishment studied. The above three had wide range of EI schemes including profit sharing or share-ownership schemes.	schemes compared to the other benefits offered to the employees. (882:1994). At Northern shoe only 14% of the respondents felt that employee share-ownership contributed an improvement in employee commitment. Whereas in Southern Shoe company less than a third felt that share-ownership contributed to improved commitment levels despite there being a participative management style and a wide range of EI initiatives. The experience of Southern Shoe could be put down to its poor corporate performance and redundancies. Therefore EI is as much affected by the prevailing organisational structure as it is a source of change. The positive effects of EI schemes cannot be reaped unless the establishment is doing well or the context is right for it.
Wilkinson et al (1994) Insignificant	1980's MBO. 16% of the shares were placed into a trust to distribute to all employees.	Analysis of the effects of EI schemes over time. Representative questionnaire survey of 50 staff, 80% response rate. Interviews with managers and union representatives, questionnaires to employees and internal and published documentation.	Machine tools company. Mactool, light engineering co in the south coast. (300 employees). EI measures : better communication., establishment of share-ownership schemes and TQM; Culture change with an emphasis on involvement without any new structures.	share-ownership schemes impact upon attitudes should be viewed in a wider context. Insignificant change in employee attitudes towards the company. Employees broadly support the principle but show little signs of new attitude in terms of identifying more closely with the company. (1994:140). Imp: Monetary worth of scheme negligible.. ck of management support and poor communication. share-ownership schemes was not integrated into the existing EI schemes.

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		A temporal analysis was conducted. Case Study part of larger study of employee Involvement of 25 UK organisations funded by Employment Department.(1989-1991). Mactool was the only case study with a share-ownership scheme. Attitude measured by commitment.		Thus the salience of the scheme may vary in direct relationship to its monetary pay out or value and the precise scheme itself. (1994:140) Little information about ESOPs and little PDM. There was enthusiasm in the beginning but it got diluted eventually., Employees were not convinced of the management commitment to involvement despite the wide array of EI. Falling share prices , low nominal value of shares with an average allocation of 500 shares (10p) the financial incentive did not exist.
French & Rosenstein (1984)	Broad based and voting rights. share-ownership schemes introduced in 1958 and at the end of 1980 the distribution of stock was as follows: Unequal distribution of shares , 20% of management own 76% of shares. No provision for representation of	Cross section. Questionnaire and interview. Response rate 87% of the employees. Attitude measure: Identification Satisfaction Identification: proxy for commitment	Firm sells installs and services heating, cooling and plumbing systems. (650 employees)	Insignificant and positive for SO and identification/commitment. Insig and - for SO and satisfaction. Employees look upon share-ownership primarily as a financial investment. They expect satisfactory economic returns but not necessarily greater influence in decision making. (1984:868) Employees shareholders with greater formal authority showed less organisational identification than those with less formal authority. This was contrary to Tannenbaums(1983) expectations. The authority did not make a difference in the relationship between other employee attitudes e.g. satisfaction and share-ownership. Desire for influence accompanying share-ownership: was not affected by the level of employee control.

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	employee owners on Board of Directors. positive			Need for longitudinal studies, but the measures used are well defined, methodology is sound, and response rate for the sample is high. Importance given to determining the financial value of the shares rather than number of shares held.
Buchko (1992) EO, attitudes, and turnover. Positive link	80% of the company shares held by the share-ownership schemes trust. 1984: initial purchase of stock. Employees owned 22.7% 1985: second purchase. Employees owned 25.8%. 1986: 29%. 1987: employees owned 80.9% due to leveraging facilities.	Before & After share-ownership study. (Aug (1987) Questionnaire. Measurement scales used; Organisational commitment questionnaire and share-ownership schemes satisfaction questionnaire. (3 yrs before and 6 years after ownership). Review of co employment records in 1990 . 3 attitude measures: organisational commitment; employee satisfaction with share-ownership schemes and turnover intentions. Response rate 58%.	Medium sized media and communications firm (376) in August 1987. The ownership was transferred to the employees from the family owned Business.	Support for importance of extrinsic benefits as well as instrumental satisfaction model. Importance of perceptions and financial rewards associated with ownership. Increased financial value of share-ownership and perceived influence as a result of SO has a positive link with organisational commitment and satisfaction. Perceived influence has a negative but insignificant link with turnover intention. Financial value of ownership affects neither turnover intentions nor actual turnover. Actual turnover is more dependent upon the perceptions of ownership and influence rather than the financial rewards or investment. Psychological ownership is important in influencing employee perceptions of ownership. Hence factors other than financial value affect the behavioural

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				outcomes of the employees. (1992:16). In fact substantially rewarding ownership might increase turnover rates e.g. Procter & Gamble. The profitability of the company remained unaltered before and after setting up the share-ownership schemes. The company was financially stable. So factors other than the financial value of investment affect employee behaviours the ability of share-ownership schemess to provide current benefits to the employees on the job in the form of greater perceived influence or control. (1992;12). Financial rewards are associated with attitude towards the share-ownership schemes programme. (1992:12). Possible that those with positive attitudes are likely to participate inn share-ownership schemes. Attitudes towards the organisation are a function of the ability of the share-ownership schemes to provide current benefits to employees on the job in the form of greater perceived influence and control. (1992:12). Limitations: Many ways not representative of typical share-ownership schemes. Response rate not very high and may not be representative of the entire sample. The case study limited to a single firm. So difficult to generalise results. Study seems quite flawless. But if committed why is turnover so high? Positive attitudes

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				might be a reflection of initial euphoria of ownership. Finally how can one manage perceptions. They are not always consistent with reality.
Long (1978) Positive	Employee buy out. 70% of the firms employees Now hold all of the company's stock. Employee representation at the board. 70% (41) shareholders. 30% (18) not shareholders. Further 70% non managerial employees own stock.	After share-ownership study. Questionnaires administered 6 months subsequent to share-ownership schemes. Attitude measures Integration, Involvement, commitment, satisfaction And Motivation. Other factors than share-ownership remained constant.	Medium sized regional Canadian trucking firm. (165). 60 usable questionnaires from non managerial. 52% response rate. Only one independent variable changed i.e. share-ownership.	Share ownership has a positive and significant link with commitment and Involvement. Participation variable has strong positive link to all the attitude variables except commitment. The study measures continuance commitment and shares have to be forgone on leaving the company. Participation has stronger overall effects than SO except in case of commitment. Interaction effect between SO and participation on commitment is small and insignificant. Stockholders show a much higher level of integration, involvement and commitment as compared to the non stock holders. Since SO turnover has declined by 30%. There is higher quality of performance and greater quantity of work done by employees. Limitations: Low rate of response. No causality can be established. Will these relationships hold over time? Cannot generalise from just one case.

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				Conclusions difficult to draw since it may well be that share-ownership causes increased participation.(supporting evidence in Long 1977 and 1978) Other specifications required, further research in a variety of settings desired.
Long (1979)	Employee buy out. 70% of the firms employees Now hold all of the company's stock. Employee representation at the board. 70% (41) shareholders. 30% (18) not shareholders.	Wave 2 of above Questionnaires administered 18 months subsequent to share-ownership schemes. Attitude measures Integration, Involvement, commitment, satisfaction And Motivation. Other factors than share-ownership remained constant.	Medium sized regional Canadian trucking firm. (165). 49% response rate. Decline in the percentage of non managerial shareholders from 69.5% to 52%.	Increase in participation in decision making subsequent to the setting up of the EO. The increase was not sustained over time but there was an increase. (1979:617) There was an increased desire for participation in decision making at job level, departmental level and organisational policy level. EO did not seem to differ from the non employee owners in terms of desire for participation in decision making.
Long (1980)	Broad based employee ownership. Trucking company: wholly employee owned . Knitting mill:	Before and after share-ownership study. Few months before share-ownership schemes and 6-8 months after share-ownership purchase 18- 20 months after share-ownership purchase.	Medium sized regional trucking firm in western Canada. (165 employees) Unionised. A knitting mill located in the north eastern US. (120 employees) Library furniture manufacturer in the north eastern US. (200 employees) unionised)	First Wave: Improved attitudes and greater commitment in trucking firm weaker results in knitting mill and negligible change in the furniture firm. Higher organisational integration, involvement and satisfaction amongst the worker owners as compared to the non owners in the trucking company and the knitting firm. Higher organisational in trucking company. No significant differences in the motivation levels.

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	70% or largely employee owned. Declined to 30% within several months of employee ownership. Furniture firm: 30% or partly employee owned. Non Managerial ownership: Trucking firm: 45% Knitting firm: 15% Furniture firm: 65% All stock carries voting rights and profit rights. Performance measures: Turnover Worker productivity Waste and scrap losses	Field observation Interview Techniques Collection of objective data. Knitting mill and furniture firm: Response rate more than 90% Trucking firm: response rate of 50%.	Participation and communication: Greatest employee representation in the broad of the trucking firm. Trucking firm: monthly board meetings. Monthly profit & Loss statement. Substantial increase in employee participation in decision making. Located in comparatively prosperous area. (5-6% unemployment) Knitting firm: 5 times a year. No regularised system of communication with employees. Slight increase in employee participation in decision making. Located in economically depressed area. (13% unemployment) Furniture firm: 5 times a year. Newsletter published. No change. Situated in economically depressed areas. (13% unemployment)	Comparing job attitudes for the Trucking and knitting firms, the former reported more favourable attitudes than the latter. The difference is primarily due to a higher level of participation in decision making in the trucking company which occurred concurrently with the conversion to employee ownership. (1980:735) Both participation in decision making and share-ownership had independent and significant effects upon key job attitudes, (1980:735) Limitations; The three firms not strictly comparable. Difficult to generalise. Outcomes could be consequence of the specific firms or the specific industry. No clear reason as to why those three firms were chosen. What happens after 18 months? Is that a sufficient time to determine effects of share-ownership. Do the profits after two years adequately represent employee share-ownership outcomes or other changes like PDM introduced alongside employee share-ownership schemes. Selectivity bias and difficult to attribute changes to employee ownership. Financial indicators are not adjusted for industry averages.

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	Changes in stock price Profitability Grievance rates Attitudinal measures: Organisational identification Job satisfaction Motivation Co operation Participation and influence.			
Long (1981) Declining commitment in the long run.		Longitudinal study. Before and after share-ownership study. 7 months prior to share-ownership, 7 months after and 18 months after share-ownership. Questionnaire to all employees. Wave 1: June 1978. Wave 2: August 1979. Wave 3: June 1980. Case Study.	Electronics firm in Western Canada. Recently converted to partial employee ownership. (150). Response rates of Wave 1; 93.6% Wave 2: 84.3% Wave 3: 82.3% The firm was growing rapidly during time of study.	Wave 2 : small increased participation in decision making at all three levels reported. Wave 3: Decline in participation in decision making and patterns of employee participation in decision making virtually identical to that before the purchase. (1981:859). Wave 2: No increased desire for participation in decision making for non managers or managers. Shareholders showed a significant decline in the desire for worker influence at the job level decisions while indicating no change in desire for personal participation or worker participation in departmental decisions and organisational policies. (1981:859). Wave 3: decline in desire of shareholders for all types of worker participation in decision making and personal PDM in organisational policies compared to period before purchase.

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		May 1978. Attitudinal variables through Likerts items and Cronbach alpha : Integration, involvement, commitment, satisfaction, motivation, concern for the performance of others and attitude towards change. Attitudes includes commitment.		(1981:864). Employees may believe that the decisions should be delegated to the experts.(Hammer and Stern:1980 in Long) (1981:872). Employees had a positive attitude toward the formal participation mechanisms, but they became disillusioned by wave 3. Though desires for influence in decision making declined over time, perceived worker decisional deprivation did not. At wave 1 there are substantial gaps between desired and perceived worker influence at all three decision levels, and these have not changed significantly by wave 3. (1981:873). However managers perceived worker decisional deprivation to decline and at Wave 3 reported very little at any decision level. (1981:872). Hence the inability of SO to bridge this gap possibly was a cause of unmet expectations and subsequent decline in attitudes and increased employee turnover. No significant changes in the employee attitudes amongst the managerial and non managerial employees. Maybe because SO not accompanied by participation in decision making. Employee attitudes declined over time. While both shareholders and non shareholders showed a decline in employee attitudes, and commitment, the declines were often sharpest amongst the employee owners despite a steady appreciation in the value of company stock. (1981:211) No change in the employee turnover. Quantity of stock acquired had little impact upon the changes in employee attitudes or perceptions. Declining faith in the formal participation mechanisms.

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				Managerial and non managerial relationships deteriorating. Managers seemed to be cut off from the non managers. By June 1980 the proportion of employees who were shareholders dropped to 40%. (210). Majority of long term employees and shareholders left the firm by the summer. They stated unmet expectations and breach of faith by management as the major cause.
Long (1982)	Reason for share-ownership schemes To increase the employee desire for greater involvement in decision making	Same as above		Waves 1& 2 7 months: Relatively little change in employee attitudes not much change in the long run. Participation in decision making: Group that perceived greater PDM reported a positive increase in various attitude dimensions .and commitment. Those that perceived unchanged PDM reported a decline in several employee attitudes like commitment in Wave 2.. Stresses the need to look at various types and levels of participation in decision making. (1982:205). Quantity of shares owned: This did not correlate strongly with PDM Though high stock group had more positive attitudes than the low stock groups. Similar to Goldstein (1978). However, High stock group showed no change in employee attitudes as compared to the low stock groups This suggests that the employees with more positive attitudes take up share-ownership schemes but share-ownership does not contribute towards improved levels of commitment. Longer term

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				Decline in the commitment levels. Initially some of the worker managers believed that worker participation had occurred but in the long run none believed that improved participation had taken place. Support for the hypothesis that employee participation moderates the relationship between share-ownership schemes and commitment. While both share holders and non shareholders showed decline in attitudes, the sharpest decline was amongst the shareholders. (1982:21). Most dramatic results in have occurred in firms with 100% employee ownership and accompanied by high PDM. (1982:212). Many of the successful cases employee ownership has been motivated by a serious threat to the company survival. (1982:212) Simple implementation of PDM wil not necessarily lead to increased worker influence unless management is willing to integrate these mechanisms into the mainstream of organisational decision making. (1982:214) Increased PDM is needed at the job level and departmental level in addition to organisational level to reap benefits associated with share-ownership. Limitations: Size of equity measures in terms of number of shares held, it does not show what proportion of equity was held. Major reorganisation of workplace took place against the

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				employee will and this could have contributed to reduced employee commitment.
Ramsay et al (1989) The impact of share-ownership.	Both discretionary share option schemes and all employee scheme introduced in 1970. SAYE. Only for the full time employees. Objective: improve employee loyalty and generate positive attitudes. Scotbake: nearly all managerial employees were participants and 63% of the manual workers. Breadline; Participants were mainly managerial long term employees.	After share-ownership study. Interview and questionnaire administered on the participants and non participants of SAYE scheme.	Goodbake plc operates primarily in the food industry through a divisionalised structure. Case study is at 2 sites: Scotbake (Scotland) (1,450). Breadline: controls 3 bakeries which produce goods for sale in its own retail store. (1,200) Mostly part time women in retail and the bakery has men. Scotbake heavily unionised. Breadline not heavily unionised except for one bakery. Questionnaire coverage: Scotbake: 119 participants and 100 non participants. Response rate: 35% Breadline: 15 participants and 47 non participants. Response rate :74%	Though majority support it only 10% on average participate in it. This has to do with financial considerations. Higher income employees are likely to participate more. No significant change in the attitudes. Financial rewards act as a motivator to participate. Often the more positively oriented employees seemed likely to participate in the scheme. Limitations: Difficult to establish cause and effect. Several other changes taking place and hence difficult to attribute changes to the share-ownership schemes.

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Ramsay et al (1989) The impact of share-ownership. Study in 1986 maybe.	Broad based share-ownership schemes for full time and part time staff. Part of an integrative participatory philosophy. Objective was to generate positive employee attitudes. A little over 10% of eligible workforce actually participated.	After share-ownership study. 12 interviews with the Brewery Council conducted. 6 white collar and 6 manual workers. 500 questionnaires to the eligible employees. Objective questionnaires asking for facts.	Norbrew, long established brewing concern in North England. (1700 staff with 1,000 working part time). Response rate for questionnaire was 20% very low.	The scheme was viewed positively by the employees but there was no change in the actual employee attitudes. Participants were motivated by purely financial considerations. The non participants had a more integrative and positive attitude towards the company. Limitations: Difficult to make generalisations. Scheme was of a specific nature. The response rate was very low. Absence of longitudinal study. Employee attitudes is an ongoing process and not overnight. The conclusions can be used as a hint in the possible reactions to SO rather than conclusive evidence.
Rhodes and Steers (1981)		Comparative study of two firms. Worker owned versus conventional firm Questionnaire. Dimensions measured: Perceived participation in decision making, Pay equity, performance reward contingencies, organisational commitment, Absenteeism, Tardiness, Turnover etc .	Firms in the Pacific Northwest manufacturing softwood plywood. (less than 200 employees). The two firms differed on the foll basis: Worker owned had no union, the other did. Worker owned had less supervision than the conventional firm. Response rate : 71% in worker owner firm. 43% in conventional firm.	Strong relationship between perceptions and organisational commitment. The worker owned company showed greater levels of commitment than in the conventional firm. Are workers forming a co operative already of a particular mind set? Commitment does not necessarily impact the behaviours like absenteeism and tardiness. Absenteeism was much higher in the co operatives as compared to the conventional firm. This has to do with stricter supervision rather than commitment. Turnover lower in the worker owned firms. This can be linked to ownership and continuance commitment.

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				Limitations: Longitudinal studies. Cannot be strictly compared to a share-ownership scheme more to employee owned companies. Generalisability is difficult. Better model specification and problems of attribution. There are other characteristics of the co operative which could explain the results e.g. better communication systems. Unionisation can be another intervening factor.
Dewe, Dunn and Richardson (1988)	SAYE linked option scheme.	Longitudinal study. (1986) Before and after study. Questionnaire based. Regression analysis, principal components analysis.	Conglomerate with interests in retailing and manufacturing. Investigation of manufacturing arm. Factory site in North Midlands. (380) Response rate 76%	Workers join if they view the scheme favourably irrespective of their attitude towards the organisation. Financial benefits are an important joining consideration. Workers who have a strong commitment to the workplace are no more likely to join than those who do not have a strong commitment. (1988:19) Workers expected to give details of their identity. This could have influenced their responses but it did not. So the researchers claim.
Sockell (1985)	Employee owned. Shelver: Employee owned in September 1976 through direct purchase. Carriers: Employee owned in July 1976 through direct	After share-ownership study. Surveys and semi structured interviews. Data supplemented by information collected from company financial, personnel and grievance records. Summer 1980.	Three employee owned companies. Shelvers: manufacturer of high quality wooden furniture to be used in the library. (NY) (140) Carriers: (founded in 1950) common carrier of motor freight. July 1976 employee owned. (160). Bedding: Founded century ago. Manufacturer of high quality woven bedspreads. (600)	Share ownership had no effect upon the influence gap. I.e. the gap between desired and existing levels of influence. SO had no effect upon perceived need for the union, strike willingness or the use of settlement routes for settling grievances. Employees relied heavily upon the union, more so because the poor performance of the company failed to meet employee financial aspirations. Formal participatory mechanisms were absent for all three firms. Limitations

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	purchase. Bedding: January 1977 Transfer via an ESOT.		Strongly unionised.	No direct attitudinal measures were used. All three companies were failing companies, a more long term view might be needed to perceive benefits and attitudinal changes. There may be factors hampering the success of the share schemes.
Hammer and Stern (1980)	Employee buy out in September 1976. Plant employees own 34% of all stock. Of this: Non managerial employees 65%. Managers and middle managers : 35%.	After share-ownership study. Study conducted 8 months after purchase from the parent corporation. Questionnaire data.	Small manufacturing firm. Location: Rural area of north eastern United States. Manufactures high quality wooden library furniture. (233) Sample of respondents 163. 69%.	Strongest motive for purchasing the shares was to save jobs followed by using it as an investment. The stockowners felt more like owners as compared to the non stock owners. However amongst the owners, still saw management as the de facto owners to much larger extent than workers saw themselves as owners. Nor did they see themselves as partners with management despite the financial investment. (1980:96). Workers in general felt that the power should rest with the management. They did not favour equalisation of power and control even when the financial value of their investments increased. Data showed that the more workers have invested in a firm the more they preferred to delegate. The more equity one has in a company the more one stands to lose should the venture fail, and delegating decision making to acknowledged experts seems a judicious choice. (1980:97). Might have something to do with the fact that the individual workers owned less stock than individual managers. There was a gap between the actual and desired levels of participation amongst the workers, however there was no active

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				step taken for power equalisation.
Goldstein (1978). positive	Employee take-over in December 28,1973. 49% of employees are shareholders. No single employee should own more than 10,000 shares. Almost half of the employees own whole of the issued capital of the parent company.	After share-ownership study. Questionnaire to all 264 employees. Dimensions measured: Challenge Support Responsibility Commitment Income Wealth Stability Satisfaction Career Application Participation	Hart of the West incorporated on November 27,1973. A western Australian company whose main products are solar hot water systems and it manufactures many other metal products. (264) Employee owned. Response rate: 51% from shareholders. 87% non shareholders.	The shareholders perceived that they had better work life than the non shareholders. The shareholders showed significantly higher levels of commitment as compared to the non shareholders. Larger size of individual shareholdings affects the perceptions of work life. Significantly higher levels of commitment for the large shareholders (300-10,000 shares) as compared to the small share holders(10 to 200 shares). The employees who had a positive view of S.W hart had the higher mean shareholdings. Shareholders perceptions attributed to the intrinsic feelings of ownership and the extrinsic benefits associated by economic gain since no special structural or processual conditions existed favouring the shareowners. Limitations: The study records perceptions and does not have evidence of actual behavioural outcomes. The perceptions could be an outcome of the euphoria rather than the reality. A longitudinal study and measurement of employee perceptions and actual behavioural outcomes is desired.
Klein (1987)		Cross sectional Data Analysis of 37 share-ownership companies. Data analyses based on the responses of 2,804 share-ownership schemes		If ownership experience is financially rewarding then there will be an increase in employee commitment. Individual shareholdings are important in influencing employee attitudes. share-ownership schemes satisfaction is significantly ad positively associated with the size of the employer share-ownership schemes

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		participants. Data collected over May 1982 to November 1984. NCEO.		contributions.
Pendleton (2001)	Majority of the employees covered by share-ownership. Minimum three quarters of the employees received shares in 5 of the six firms. Huge differences in size of individual shareholdings. The proportion of shares held by the employees other than top managers (directly or through the trust) ranged from 12.5% to 66%. Majority of employees eligible for share-ownership	After share-ownership study. The questionnaires were distributed to small but representative samples, in each case, stratified by occupation.	six companies in the services sector 5 bus companies and sixth was a catering and service organisation. Response rate; 32%	Employee share-ownership does not directly influence employee commitment in these firms. However, individual share-ownership has an indirect effect, in so far as this influences the feelings of ownership, which has a powerfully significant effect on the four commitment measures. (2001:171) Participation in decisions is directly and significantly related to commitment at each instance. Most employees do not feel that employee ownership has lead to improvements in cooperation, equality or participation in decision making. Higher the level of individual holdings, are positively related with the assessment of positive changes. Results are not significant except in case of perceptions related to increased share in profits. There were no clear differences amongst the occupational groups in terms of attitudes. Participation and the size of individual share holdings are the most important influences on the feelings of ownership. Not much support for extrinsic satisfaction model. Perhaps because the shares were not tradable and the employees could realise the full value by leaving the firm. Shares were not readily

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	schemes. Eligibility was evenly spread amongst the managerial, clerical and manual occupations. Share distribution was a function of tenure of service and equality.			realised. Overall it is seen that occupational position is consistently more strongly related to perceptions and desires for participation than the levels of shareholding. Distinguished between actual and desired levels of participation.
Trewhitt (2000)	91% of employees were share owners. Objective was anti take over mechanism. Each employee held approximated £1000 worth of shares. Eligibility to purchase after 1 year of service	After share-ownership schemes. Data Collection between October 1997- May 1998. Case study approach based upon: (i) semi structures interviews (ii)questionnaires 30% response rate. (iii) data record about the company characteristics, labour records and other industrial relations information.	A wholly Bus company employing 300 staff and managers with ESOP in 1993. Workers member of TGWU. 97% of respondents trade union members.	Overall the employees wanted more involvement in various issues. Contrary to expectations, NSO wanted more involvement than the SO on majority of issues like: overall company policies, matters affecting department, how job is done, wage and bonus payments, health safety and conditions of work, purchase of new machinery and equipment and recruitment. However in areas like investment decisions, training and the introduction of new products and services, SO wanted more involvement than NSO. This may be because the share owners show greater concern regarding how their investment is being used. Further the share owners appeared to be more concerned about training so as to maintain high quality of service. Support for the findings by Hammer and Stern(1980) and French(1987) i.e. desire for employee involvement by share

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	and voting rights Busco has right of first refusal.			owners is less than for those who own fewer shares or no shares at all, as long as the share owners are satisfied with how the firm is being run. Both ESO and NSO felt that they did not have much say in the firm. So no significant difference in perceptions of employee ownership between the two groups. Desire for EI depends upon whether share-ownership is perceived primarily as a financial incentive or control mechanism. (French 1987). The mere existence of Employee Involvement does not guarantee actual employee involvement. The actual employee involvement might also depend upon whether the employees really want it. Mere presence of ESO does not guarantee employee involvement. Limitations: Just one case study. Limited response rate, only 30% of the employees. Is this sample representative of the majority of employees. It is not clear whether the difference between the response for SO and NSO are statistically significant. Significance testing might reveal that there is not much difference between the SO and NSO with respect to desire for employee involvement except in one or two areas. Results may not be general sable but do give an insight into the

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				employee attitudes towards employee involvement.
Jochim (1979) positive	At least 50% equity owned by the employees. Direct ownership and ESOP firms. Profit levels.	After ESOP study. Correlation regression analysis. Report prepared by Survey Research Center of the University of Michigan Development Administration of the Department of Commerce. Companies with direct ownership versus those without.	30 Direct ownership firms and 68 ESOP firms. Moderate size firms with about $17 million in sales and 200 employees for DO and $40 million in sales and 400 employees in ESOP firms.	Employee ownership improves worker and management attitudes and satisfaction. Managers like employee participation but do not want too much of worker influence. The presence of workers on board appears to be bad for both profits and employee attitudes. Limitations: Small sample size. After ESOP study and correlation analysis does not reveal causality. No indication of whether the profitability levels are significantly different from the no employee ownership firms. Nature of firms or industry is not revealed. Management view was represented and not the employee as well.
Russell et al (1979)	Employee owned companies Productivity	Worker owned firms versus non worker owned firms.	6 worker owned scavenger co operatives firms . The sample of non owners can be divided into:241 non shareholding employees from the 6 worker owned refuse collecting firms. 162 employees of 7 conventional private refuse collecting companies; 142 workers from four municipal refuse departments.	Worker owners identify much more with their organisations than the non worker owners. Worker ownership was also considered an important motivational factor. Greater commitment amongst the worker owners as compared to the non owners but it was unclear whether worker ownership increased the commitment of the worker owners to their firm or lessens the commitment of the non worker owners. It was clear that in a large number of the worker owners firms, there seems to be a dominance of worker owners over the non worker owners. In

APPENDIX 2 Name	Type of share-ownership scheme	Methodology & Data Source	Sample size and Characteristics	Comments
				fact for those placed near the bottom of the hierarchies, worker ownership easily assumes an autocratic and oppressive character. (1979:340) Hence there is a case for introducing worker ownership amongst the rank and file of workers.
Klein & Hall (1988)	42.33% company shares owned by the ESOP.	Data collection between May 1982 to November 1984. Questionnaire survey, random sample or all employees in small companies. Interview with key managerial respondent. Organisation commitment based on Mowday, Steers & porter nine point scale.	2,804 ESOP participants in 37 companies. The companies ranged in size from 15 to 7,070 employees. Response rate 55.13% 13 companies gave employees full voting rights. 23 gave no voting rights.	Employees are most satisfied with the ESOP the company makes large annual contributions. Company maintains an extensive ESOP communication programme Management is strongly committed to the ESOP The company established its ESOP for philosophical, business transfer, employee incentive or employee benefit reasons ESOP is an older plan. Employee education is negatively correlated with ESOP satisfaction (supported by Long 1982) Employees who desire greater influence in decision making tend to be less satisfied with the ESOP. Lessons: Financial rewards are important The same ESOP and individual characteristics that lead to ESOP satisfaction also lead though less strongly to organisational commitment. Both individual and company shape employee attitudes.
Keef (1998) negative	Sample of share owners consisted of managers. The average	Longitudinal analysis using Longs (1978a) theoretical framework. Survey analysis. Logistic regression analysis	Large organisation operating in a high technology sector. In New Zealand.	Existing attitudes had no causal effect on the decision to purchase the shares in the employing firm.

APPENDIX 2 Name	Type of share-ownership scheme	Methodology & Data Source	Sample size and Characteristics	Comments
	investment was not large.	used. Organisational commitment based upon the Cook and Wall (1980) instrument. Wave 1 1990: 1 month before share-ownership schemes. Response rate (86%) Wave 2: 10 months subsequent to share-ownership schemes. Response rate (77%).		The decision may be based upon the economic or profit motive. (Dewe et. al. 1988 ; Klein 1987 in Keef:1998). Overall decline in organisational commitment. Other reasons for decline: Economic reforms experienced in New Zealand. Recession and deregulation caused greater competition, forced company to undergo restructuring and lay off employees. Fall in share prices. Fall in share prices could have affected the commitment levels like in Dunn et. al. (1991) Alternatively it may be due to the theory of unmet expectations as propagated by Long (1982). Issues: Is 10 months sufficient time for share-ownership schemes to reap benefits, particularly in the face of other changes. Marchington et. al. (1994). Already conveyed the importance of contextual factor in influencing the efficacy of EI schemes. May have to do with the small size or coverage of SO. The results may not be generalisable to the other industries.
Pendleton et. al. (1998) positive	Employee buy out. 51% of equity purchased by top managers and 49% purchased by employee	Attitude survey conducted during 1991 and early 1992. All respondents were share holders. Questionnaires were given to a	Four UK bus companies. Response rate :36%.	Support for intrinsic and Instrumental satisfaction model. Psychological ownership. 30-50% employees experienced some form of psychological ownership. 70% of respondents felt that share-ownership schemes has not

APPENDIX 2 Name	Type of share-ownership scheme	Methodology & Data Source	Sample size and Characteristics	Comments
	benefits trust for distribution to the employees. Participation rates excess of 90%. Proportion of equity held by employees more than the norm for share-ownership schemes. Wide variation in the distribution of the scheme.	representative sample of employee stratified by occupation.		given them greater say in the company decision making. 20% report increased PDM. This is higher than in conventional schemes where 15% report higher PDM. (Poole & Jenkins : 1990). Employee share-ownership schemes have some effect upon the attitudes but only for some people i.e. most of those who experience some form of psychological ownership. Results: share-ownership schemes characteristics influence psychological ownership and this in turn affects commitment levels. Psychological ownership is determined by the Participation indecision making, Individual shareholdings Employee perceptions of their participation at the job level. Organisational commitment influenced by psychological ownership and work-group relationships. Perceived levels of participation in relation to desired levels of participation is not significantly related to commitment.
Oliver (1984) positive	Employee owned worker co operatives.	Cross section Questionnaires and semi structured interviews designed to capture attitudes as well as determine attitudes of individuals who for the co operative. Organisational commitment	6 worker co operatives in Scotland.	Higher organisational commitment than the population norms. The individual who join the co operatives are a highly self selected group whose values and goals match the values and goals of the organisation. It is argued that this self selection may cause high organisational commitment.

APPENDIX 2 Name	Type of share-ownership scheme	Methodology & Data Source	Sample size and Characteristics	Comments
		(Cook and Wall 1980). Identification Pride and loyalty.		
Dunn et. al. (1991) Insignificant change,	SAYE scheme. 12% actually participated in the scheme.	Longitudinal analysis. Before and after share-ownership. Wave 1 October 1986 before SAYE. Wave 2 October 1987 After SAYE Questionnaires Commitment measured in terms of loyalty.	Manufacturing arm of a conglomerate with interests in retailing and manufacturing. (North Midlands). The factory accounts for quarter of total company workforce. 26 actual joiners, 57 tempted to join but did not. 127 non joiners.	Workers were inclined to participate if they perceived the schemes as providing financial benefits. Committed employees were not necessarily more inclined to join. No difference in the commitment levels for joiners and the majority of non joiners. Decline in commitment levels for the tempted joiners who did not join. Could be because the tempted non joiners opted out because of their dissatisfaction with pay in 1987. The joiners on the other hand might not have been so affected by the pay dispute because they might belong to a financially privileged group who are financially stable enough to join the SAYE. 60% of the joiners indicated that they intended to stay longer. Issues: Is 1 year long enough to determine the benefits reaped by share-ownership schemes particularly when the SAYE scheme was for 5 years. No indication of the actual response rate. Financial situation of the employees and financial returns associated with the share-ownership seems to be key determinant for participation. May lead to greater divide between haves and have-nots rather than leading to industrial democracy.

APPENDIX 2 Name	Type of share-ownership scheme	Methodology & Data Source	Sample size and Characteristics	Comments
Poole and Jenkins (1988) insignificant	SAYE schemes, Inland revenue approved profit sharing schemes and executive option schemes. High proportion was SAYE.	After share-ownership schemes	22 major UK companies and views of nearly 2000 employees in 12 of these companies was reported. The firms varied in size, industrial sector, degree of unionisation and the type of shares offered.	Employees support profit sharing and share-ownership schemes as long as they cover a large section of personnel. Scheme adoption seemed to improve job satisfaction and internal communications. However in majority of the cases the schemes were found to be neither successful nor unsuccessful. This applies to increasing employees sense of commitment (1988:34) It may not be surprising to note that the employees did not really perceive that there was increased PDM accompanying share-ownership schemes. This could be a reason for the relatively few benefits.
Tucker et. al. (1989) positive		Before and after share-ownership	Small company in Richmond Virginia with 40 employees.	Employee commitment and job satisfaction higher after share-ownership schemes even though perceived levels of decision making did not change.
Kruse (1984)	100% employee owned. Galaxy: 6 managers own 48% of the shares. Remaining 52% owned by the ESOP. Staggered vesting and ESOP set up in 1973.	Employee owners versus non employee owners. Interviews and open ended questionnaire. Background company information. Some of the questionnaire data is used in multiple regressions to compare the attitudes of these employees with those of the other Non ESOP employees. Employee attitudes measurement: Motivation, participation	Galaxy and Arrow Galaxy: Durable good manufacturing company in Northeast. Over 500 employees. Only rights to share profits for non managerial employees. (100% response rate). Family owned, management decision to introduce ESOP. Research several years after ESOP adoption. Arrow: retail store chain in Midwest. Several thousand. Voting rights. Employee buy out for the generous tax benefits.	The statistical analysis showed the levels of overall job satisfaction at both companies and job attachment at Arrow to be lower than the control groups. If, anything, ESOPS appear to have decreased job satisfaction. (1984:141). This was explained in Galaxy though unmet expectations, of many employees who hoped for more information, a friendlier atmosphere, some say in decisions and better treatment because of ESOPs.. (1984L141). The same items were desired but not expected amongst the Arrow employees. Older employees favoured ESOPS as compared to younger employees. The opportunity to reap the financial benefits was closer than for the younger employees.

APPENDIX 2 Name	Type of share-ownership scheme	Methodology & Data Source	Sample size and Characteristics	Comments
	Arrow : ownership shares are distributed fairly equally every year amongst the employees. ESOP after 1978 so under the revenue act requiring the voting rights to be passed.	desire, attachment to unions, sense of identity and ownership, and job satisfaction.	Research 10 months after ESOP adoption. (65% response rate) Neither of them have very high PDM.	Employee participation in decision making is an important variable in making sure that the attitudinal change expected from share-ownership schemes is reaped. Employees desire more involvement in job level decisions. PDM like voting rights and elected board representative s are not sufficient. (1984:146) Presence of union is an important factor.
Long (1982)	Reason for share-ownership schemes To increase the employee desire for greater involvement in decision making	Same as above		Waves 1& 2 7 months: Relatively little change in employee attitudes not much change in the long run. Participation in decision making: Group that perceived greater PDM reported a positive increase in various attitude dimensions .and commitment. Those that perceived unchanged PDM reported a decline in several employee attitudes like commitment in Wave 2.. Stresses the need to look at various types and levels of participation in decision making. (1982:205). Quantity of shares owned: This did not correlate strongly with PDM Though high stock group had more positive attitudes than the low stock groups. Similar to Gldstein (1978). However, High stock group showed no change in employee attitudes as compared to the

APPENDIX 2 Name	Type of share-ownership scheme	Methodology & Data Source	Sample size and Characteristics	Comments
				low stock groups This suggests that the employees with more positive attitudes take up share-ownership schemes but share-ownership does not contribute towards improved levels of commitment. Longer term Decline in the commitment levels. Initially some of the worker managers believed that worker participation had occurred but in the long run none believed that improved participation had taken place. Support for the hypothesis that employee participation moderates the relationship between share-ownership schemes and commitment. While both share holders and non shareholders showed decline in attitudes, the sharpest decline was amongst the shareholders. (1982:21). Most dramatic results in have occurred in firms with 100% employee ownership and accompanied by high PDM. (1982:212). Many of the successful cases employee ownership has been motivated by a serious threat to the company survival. (1982:212) Simple implementation of PDM wil not necessarily lead to increased worker influence unless management is willing to integrate these mechanisms into the mainstream of organisational decision making. (1982:214) Increased PDM is needed at the job level and departmental level in

APPENDIX 2 Name	Type of share-ownership scheme	Methodology & Data Source	Sample size and Characteristics	Comments
				addition to organisational level to reap benefits associated with share-ownership. Limitations: Size of equity measures in terms of number of shares held, it does not show what proportion of equity was held. Major reorganisation of workplace took place against the employee will and this could have contributed to reduced employee commitment.
Bell and Hanson (1989) positive		Questionnaire over a random sample over late 1983 and early 1984.	4060 employees in 12 profit sharing companies. Response rate was 67%.	Strong support for the schemes irrespective of managerial or non managerial employees. 73% felt that profit sharing improved the employee attitudes.

Appendix 3: Share-Ownership Schemes and Employee Turnover: Summary of Key Studies

APPENDIX 3 Name	Type of share-ownership scheme	Methodology & Data Source	Sample size and Characteristics	Comments
Addison and Belfield(2001)	SAYE Discretionary or executive share option schemes Other types of share\ ownership Economic outcomes include: productivity levels, change in productivity, and change in employment . IR outcomes: Relations between management and employees Quit rate Absenteeism rate. EI defined as participation in decision making mechanisms. Contingent pay is not included in the definition of EI.	After share-ownership study and compared to workplaces with no schemes. Estimation based upon ordered probit and logistic weighted least squares. Based upon the 1998 Workplace Employee Relations Survey. (WERS98) cross section data set. Similar estimation as that of Fernie and Metcalf (1995). But differs in the following respects: Variable definitions are not always identical. Industry controls differ because WIRS3 follows the Standard Industrial Classification from 1980 and WERS98 follows Those from 1992. Additional controls used by Addison and Belfield. Employee turnover: Number of voluntary quits as a ratio of the Total number of employees in the establishment who resigned in the 12 months preceding the survey divided by the	Weighted sample.	SAYE schemes are associated with reduced quit rates. Executive option schemes are associated with increased quit rates.

APPENDIX 3 Name	Type of share-ownership scheme	Methodology & Data Source	Sample size and Characteristics	Comments
		current employment levels.		
Buchko (1992)	80% of the company shares held by the share-ownership schemes trust. 1984: initial purchase of stock. Employees owned 22.7% 1985: second purchase. Employees owned 25.8%. 1986: 29%. 1987: employees owned 80.9% due to leveraging facilities.	Before & After share-ownership study. (Aug (1987) Questionnaire. Measurement scales used; Organisational commitment questionnaire and share-ownership schemes satisfaction questionnaire. (3 yrs before and 6 years after ownership). Review of co employment records in 1990 . 3 attitude measures: organisational commitment; employee satisfaction with share-ownership schemes and turnover intentions. Response rate 58%. Company records were reviewed by the researcher in 1990 to acquire data on employee turnover. Employee turnover measured by: Reviewing companies employment records of full time employees. Individual level variables for employee turnover. employees that had voluntarily left the organisation in the 32 months after the administration of the survey.	Share ownership has a negative relationship to turnover intention. However only perceived influence as a result of share-ownership is a predictor of actual turnover behaviour. The financial value of share-ownership is not an effective predictor of actual turn over behaviour. Actual turnover is more dependent upon the perceptions of ownership and influence rather than the financial rewards or investment. Hence factors other than financial value affect the behavioural outcomes of the employees. (1992:16). In fact substantially rewarding ownership might increase turnover rates e.g. Procter & Gamble. (Buchko :1992).	Share ownership has a negative relationship to turnover intention. However only perceived influence as a result of share-ownership is a predictor of actual turnover behaviour. The financial value of share-ownership is not an effective predictor of actual turn over behaviour. Actual turnover is more dependent upon the perceptions of ownership and influence rather than the financial rewards or investment. Hence factors other than financial value affect the behavioural outcomes of the employees. (1992:16). In fact substantially rewarding ownership might increase turnover rates e.g. Procter & Gamble. (Buchko :1992). *Limitations:* *Many ways not representative of typical share-ownership schemes.* *Response rate not very high and may not be*

APPENDIX 3 Name	Type of share-ownership scheme	Methodology & Data Source	Sample size and Characteristics	Comments
			Limitations: *Many ways not representative of typical share-ownership schemes.* *Response rate not very high and may not be*	
Fernie and Metcalf (1995)	SAYE Discretionary or executive share option schemes Other types of share\ ownership Performance measures: Economic outcomes include: productivity levels, change in productivity, and change in employment . IR outcomes: Relations between management and employees Quit rate Absenteeism rate. EI defined as participation in decision making mechanisms. Contingent pay is not included in the definition of EI.	After share-ownership study and compared to workplaces with no schemes. Estimation based upon ordered probit and logistic weighted least squares. 1990 Workplace Industrial Relations Survey (WIRS 3) cross section data set. Response rate 83%	Workplaces in the trading sector. (78% of total sample of 2061 workplaces with a minimum of 25 employees). Weighted sample.	Surprisingly share-ownership schemes is associated with higher turnover rates. i.e. Save as you earn schemes. However executive share-ownership schemes is associated with reduced turnover. Trade union recognition is negatively associated with the productivity outcomes and are associated with lower quit rates. *Limitations:* *Causality.* *Some outcome variables are subjective while other are objective.*
Long (1980)	Broad based employee ownership.	Before and after share-ownership study. Few months before share-ownership schemes and	Medium sized regional trucking firm in western Canada. (165 employees)	First Wave: Comparing job attitudes for the Trucking and

APPENDIX 3 Name	Type of share-ownership scheme	Methodology & Data Source	Sample size and Characteristics	Comments
	Trucking company: wholly employee owned . Knitting mill: 70% or largely employee owned. Declined to 30% within several months of employee ownership. Furniture firm: 30% or partly employee owned. Non Managerial ownership: Trucking firm: 45% Knitting firm: 15% Furniture firm: 65% All stock carries voting rights and profit rights. Performance measures: Turnover Worker productivity Waste and scrap losses Changes in stock price Profitability Grievance rates	6-8 months after share-ownership purchase 18- 20 months after share-ownership purchase. Field observation Interview Techniques Collection of objective data. Knitting mill and furniture firm: Response rate more than 90% Trucking firm: response rate of 50%.	Unionised. A knitting mill located in the north eastern US. (120 employees) Library furniture manufacturer in the north eastern US. (200 employees) unionised) Participation and communication: Greatest employee representation in the broad of the trucking firm. Trucking firm: monthly board meetings. Monthly profit & Loss statement. Substantial increase in employee participation in decision making. Located in comparatively prosperous area. (5-6% unemployment) Knitting firm: 5 times a year. No regularised system of communication with employees. Slight increase in employee	knitting firms, the former reported more favourable attitudes than the latter. Trucking firm: turnover declined about 30% and the decline took place entirely amongst the share holders. Shareowners in the trucking firm had turnover rate of less than 1/3rd of the non share owners. Low employee turnover could also be attributed to the poor alternative employment opportunities. Knitting mill: Before share-ownership schemes turnover was low at 3.9% but after share-ownership schemes turnover further declined to 1.7%. Furniture firm: No change in the levels of employee turnover was reported. The decline in turnover appears to correspond to the following: improved levels of commitment moderate to high degree of employee ownership 300% and 252% increase in share prices in the trucking and the knitting mill respectively. Whereas unchanged levels of commitment and low employee turnover and unchanged share

APPENDIX 3 Name	Type of share-ownership scheme	Methodology & Data Source	Sample size and Characteristics	Comments
	Attitudinal measures: Organisational identification Job satisfaction Motivation Co operation Participation and influence.		participation in decision making. Located in economically depressed area. (13% unemployment) Furniture firm: 5 times a year. Newsletter published. No change. Situated in economically depressed areas. (13% unemployment)	prices were reported in the furniture firm. *Limitations;* *The three firms not strictly comparable.* *Difficult to generalise.* *Outcomes could be consequence of the specific firms or the specific industry.* *No clear reason as to why those three firms were chosen.* *What happens after 18 months? Is that a sufficient time to determine effects of share-ownership* *Selectivity bias and difficult to attribute changes to employee ownership.* *Financial indicators are not adjusted for industry averages.*
Rhodes and Steers (1981)		Comparative study of two firms. Worker owned versus conventional firm Questionnaire. Dimensions measured: Perceived participation in decision making, Pay equity, performance reward contingencies, organisational commitment, Absenteeism, Tardiness, Turnover etc	Firms in the Pacific Northwest manufacturing softwood plywood. (less than 200 employees). The two firms differed on the foll basis: Worker owned had no union, the other did. Worker owned had less supervision than the	Voluntary turnover rate for the production employees at the conventional site was 14.6% while at the cooperative site the turnover rate for the worker-owners was 1% for the same time period. It is suggested that low turnover is an outcome of worker ownership. *Limitations:*

APPENDIX 3 Name	Type of share-ownership scheme	Methodology & Data Source	Sample size and Characteristics	Comments
			conventional firm. Response rate : 71% in worker owner firm. 43% in conventional firm	*Longitudinal studies.* *Generalisability is difficult because:* *Cannot be strictly compared to a share-ownership scheme* *Quitting ones job in co operative is more difficult than in a conventional fir since it is up to the worker owners to find a purchaser for his or her shares.* *Better model specification and problems of attribution.* *There are other characteristics of the co operative which could explain the results e.g. better communication systems. Unionisation can be another intervening factor.* *Focus on the share-ownership schemes turnover through the commitment route. Considers employee turnover as an outcome of organisational commitment.* *Perhaps distinguishing between affective and continuance commitment may be more appropriate.*
Wilson et. al. (1990)	All employee share-ownership schemes	share-ownership schemes versus non share-ownership schemes analysis over 5 years using survey analysis based upon engineering firms. Linear regression model with quits as the dependent variable and share-ownership	52 firms in the engineering industry, 260 individual observations. Data available for 5 years (1978-82). 14 of the firms had all employee share-ownership schemes.	share-ownership schemes have a significant and negative impact upon the quit rates. Voluntary turnover and quit rates 2-2.5 % lower in firms that have established share-ownership schemes.

APPENDIX 3 Name	Type of share-ownership scheme	Methodology & Data Source	Sample size and Characteristics	Comments
		schemes as an independent variable. QUIT: ratio of number of employees giving notice to the total number of employees in a given year. Simple correlations for 5 years (1978-1982).		Need to test the relationship between the extent of share-ownership coverage and Its effect upon voluntary turnover. *Limitations:* *Results cannot be generalised to other industries.*

Appendix 4: Description of Statistical Packages Used

SPSS and Limdep dos version and Limdep 7 are standardised and widely used statistical packages for conducting econometric analysis. These packages have been used to investigate the relationship between share-ownership schemes and performance.

The SPSS data file is used for the following purposes:

- Storing the raw data in the WERS98 data-set
- Constructing new variables from the raw data using a syntax command file.

Instructions for use: While investigating the link between employee share-ownership and organisational performance:

- SPSS data file has to be converted into a tab delimited file so that it can be read into the Limdep Dos version.
- A command file containing the specifics of the regression equation with the appropriate command is then created. This is called the data input file. This file is used to generate a set of results which were stored in the output file.

Limdep dos version and Limdep 7 are used for generating the results

LIMDEP dos version is very cumbersome and requires extra attention to details like punctuation marks and line spacing to ensure the successful generation of the results. Besides, the package is unable to determine the reason for error if the programme fails to generate results. Hence, it has been replaced by the Limdep7 for windows.

Limdep7 for Windows is user friendly and overcomes most of the limitations of the Limdep Dos version. The data has to be available as an LPJ file in order to be processed by Limdep 7 for Windows. The specifications of the regression equation

are contained in the command file with file extension '.lim'. The results from running the model are saved in the output file with file extension '.out'. Both the command files and the output files are available in word format.

Stata Transfer, is a data conversion package and has been used for converting the data stored in the SPSS data file into the LPJ file.

The statistical packages are used for testing the three key questions.

First, 'What is the nature of the relationship between share-ownership schemes and organisational performance?'.

Second, 'Do share-ownership schemes influence organisational performance by enhancing the levels of affective commitment?'.

Third, 'Do share-ownership schemes impact on organisational performance through reduced employee turnover?'

The first and the third questions are tested using establishment level data and the second question was tested using a combination establishment data and individual data. The final interpretation of the results are carried out with certain key statistical indicators like the coefficient estimate, the t statistic, the mean of the independent variable, the chi square distribution, the log likelihood function, the total number of observations in the regression model and the frequency distribution of the dependent and independent variables.

Appendix 5: Definition of Variables for Share-Ownership Schemes and Organisational Performance

Variable	*Appendix 5: Definition*
Independent and Dependent Variables	
Presence of share-ownership (Empshare)	Do any employees at this workplace receive payments or dividends from any of the following payment schemes? (1= employee share-ownership scheme; 0 = profit related payments or bonuses, deferred profit sharing schemes, individual or group performance related pay schemes, other cash bonuses)
60-100% non-managerial employees eligible for share-ownership (Hicover)	Are the majority of non-managerial employees (60% or more) at this workplace eligible for the employee share-ownership schemes? (1/0. Yes/No).
60-100% non-managerial employees actually participate in share-ownership (Hipart)	Do the majority of eligible non-managerial employees (60% or more) at this workplace participate in the employee share-ownership schemes? (1/0, Yes/No).
Profit-Related Pay (PRP)	Do any employees at this workplace receive payments or dividends from Profit-Related Payments or bonuses? (1/0, Yes/No)?
Profit-Sharing schemes (Pshare)	Do any employees at this workplace receive payments or dividends from Deferred Profit-Sharing schemes? (1/0, Yes/No)?
Downward communication	Does the workplace have one or more of the following: Regular meetings with the entire workforce, systematic use of management chain / cascading information, regular newsletters distributed to employees (1/0, Yes/No).
Upward problem solving	Does the workplace have one or more of the following: groups that solve specific problems, or discuss aspects of performance or quality, suggestion schemes, (1/0, Yes/No).
Representative Participation	Are there any committees of managers and employees at this workplace primarily concerned with consultation rather than negotiation? (1/0, Yes/No).
Better than average financial performance (Betterfp)	How is the financial performance of this establishment compared with the establishments and firms in the same industry? (1= a lot better than average or better than average, 0 = about average for industry, below average or a lot below average).
Better than average labour productivity	How is the labour productivity of this establishment compared with the establishments and firms in the same industry? (1= a lot

Variable	*Appendix 5: Definition*
(Betterlp)	better than average or better than average, 0 = about average for industry, below average or a lot below average).
Contextual Variables	
Union presence	Is there at least one recognised union at the establishment. (1/0, Yes/No)
% of unskilled workers	% of routine unskilled workers to the total workforce currently in the establishment.
Establishment Age	
> 20 years	Has the establishment been in operation at the current address for greater than 20 years? (1/0, Yes/No).
Sectors	Which sector does the establishment operate in?
Manufacturing sector	(1/0, Yes/No)
Public administration	(1/0, Yes/No)
Education	(1/0, Yes/No)
Health	(1/0, Yes/No)
Electricity, gas and water	(1/0, Yes/No)
Construction	(1/0, Yes/No)
Wholesale and retail	(1/0, Yes/No)
Hotels and restaurants	(1/0, Yes/No)
Transport and communication	(1/0, Yes/No)
Financial services	(1/0, Yes/No)
Other business Services	(1/0, Yes/No)
Other community services	Omitted category
Establishment size	
10 – 30,000 employees	Currently how many employees do you have on the payroll at this establishment? (Continuous variable; Minimum 10 to

Variable	*Appendix 5: Definition*
	Maximum 30,000 employees)
Market Characteristics	
Market growth	Is the market in which this establishment operates growing? (1/0, Yes/No).
International market	Is the market for the main product or service international? (1/0, Yes/No).
Product market competition	Is there a high competition for main product or service produced by the establishment? (1/0, Yes/No).
Establishment Status	
Independent establishment	Is the establishment a single independent UK based establishment? (1/0, Yes/No).

Note : Most of the questions from the WERS98 data set have been rephrased in the interest defining the variables used in this thesis.

Appendix 6: Definition of Variables for Share-Ownership Schemes and Affective Commitment

Variable	*Appendix 6: Definition*
Independent and Dependent Variables	
Empshare, Hicover, Hipart, PRP and Pshare	Same as Appendix 5
Job level participation (Jbpart)	How frequently are you or the other employees in the workplace encouraged to give their views on the following issues: staffing and redundancy issues, issues related to health and safety, pay issues and work related issues. (1 = Frequently = , 0 = Never or Sometimes or Hardly ever).
Organisational level participation (Orgpart)	How frequently are you or the other employees in the workplace encouraged to give their views on the following issues: future plans for the workplace. (1= Frequently , 0 = Never or Sometimes or Hardly ever)
Only managerial share-ownership	1 = Share-ownership firms where only managerial employees are eligible for share-ownership, 0 = Other share ownership firms i.e. share-ownership firms where both managerial and non-managerial employees are eligible for share-ownership.
Managerial and non- managerial share-ownership	1 = Share-ownership firms where both managers and non-managers are eligible for share-ownership = 1, 0 = Other share-ownership firms i.e. share-ownership firms where only managerial employees are eligible share-ownership.
Affective commitment	I have a sense of loyalty to the establishment (0 = Strongly Disagree , 1 = Disagree, 2 = Neither Agree nor Disagree , 3 = Agree or 4 = Strongly Agree)
Contextual Variables	
Individual Controls	
Sex of employee	Are you male or female?
Male	(1 = male, 0 = otherwise)
Ethnic group	To which of the groups do you consider you belong?
Black	1 = Black, 0 = otherwise.
Asian	1 = Asian , 0 = otherwise.

Variable	*Appendix 6: Definition*
Chinese	1 = Chinese , 0 = otherwise.
Age of employee	How old are you?
20-24 yrs	1= 20-24 yrs, 0 = otherwise.
25-29 yrs	1 = 25-29 yrs, 0 = otherwise.
30-39 yrs	1 = 30-39 yrs, 0 = otherwise.
40-49yrs	1 = 40-49yrs, 0 = otherwise.
50-59yrs	1 = 50-59yrs, 0 = otherwise.
60 yrs or more	1 = 60 yrs or more, 0 = otherwise.
Marital status	Which of the following describes your current status?
Married	1 = Living with spouse or partner , 0 = otherwise.
Job Tenure	How many years in total have you been working at this workplace?
1 to less than 2yrs	1 = 1 to less than 2yrs, 0 = otherwise.
2 to less than 5 yrs	1 = 2 to less than 5 yrs, 0 = otherwise.
5 to less than 10 yrs	1 = 5 to less than 10 yrs, 0 = otherwise.
More than 10 yrs	1 = More than 10 yrs , 0 = otherwise.
Educational qualifications	What is the highest educational qualification you hold?
ALEVEL	1 = A level or equivalent , 0 = otherwise.
OLEVEL	1 = O levels or equivalent/ GCSE , 0 = otherwise.
CSE	1 = CSE or equivalent/GCSE , 0 = otherwise.
NVQ (vocational)	Do you hold any recognised vocational qualification such as trade apprenticeships, NVQs or a city and guilds certificate? (1/0, Yes/No).
Occupation	Which of the following occupational groups best describes your job at present?

Variable	*Appendix 6: Definition*
Professional e.g. teachers, lecturer, lawyer, librarian, engineer, architect, doctor, accountant, social worker.	1 = Professionals , otherwise = 0.
Craft and skilled service e.g. tool maker, electrician , fitter, motor mechanic,	1 = Craft & skilled service = 1, 0 = otherwise.
Clerical and secretarial e.g. typist, postal clerk, secretary, civil service	1= Clerical & secretarial , 0 = otherwise.
Sales e.g. till operator, sales assistant, sales representative, petrol pump attendant	1 = Sales = 1, 0 = otherwise.
Line and assembly. e.g. assembly line worker, packer, truck driver	1 = Operative and assembly, 0 = otherwise.
Trade union membership	1= if the employee is currently a member of a trade union or a staff association, 0 = otherwise.
Nature of job	Is your job permanent or is it temporary or for a fixed term?
Temporary job	1 = Temporary contract, 0 = otherwise.
Fixed term contract	1 = Fixed term contract, 0 = otherwise.
Female work	1 = The work at this workplace is done mainly by women or only by women , 0 = otherwise.
Male work	1 = The work at this workplace is done mainly by men or only by men , 0 = otherwise.
Gross yearly Wage level	How much do you get paid for the job here before a tax and other deductions are made?
Above £18,721	1 = Above £18,721 p.a. before tax , 0 = otherwise.
Between £7,281 - £ 9,360	1 = Between £7,281 - £ 9,360 p.a. before tax , 0 = otherwise.
Industry Controls	Same as Appendix 5.
Establishment Controls	
Establishment size	How many employees are currently employed in an establishment?
10,000 plus	1 = Number of employees in the establishment is >= 10,000. , 0 = otherwise.
Less than 200	1 = Number of employees in the establishment is < 200 , 0 = otherwise.

Variable	*Appendix 6: Definition*
Market Characteristics	
High level of competition	Same as Appendix 5
International product market	Same as Appendix 5
Growing market	Same as Appendix 5
Above 26% UK market share	The establishment's UK market share for the main product or service is 26-50% or greater than 50% = 1, 0 = otherwise.
Communication systems	
Joint consultation	Are there any committees of managers and employees at this work place primarily concerned with consultation rather than negotiation? (1/0, Yes/No)
Team briefing	Do you have a system of briefings for any section or sections of the workforce here? (1/0, Yes/No)
Quality circles	Do you have any groups at this workplace that solve specific problems or discuss aspects of performance or quality? (1/0, Yes/No)
Ownership status	
Private sector	How would you describe the formal status of this establishment?' Is it privately or publicly owned ? 1 = Private sector, 0 = otherwise
Foreign ownership; part/full	How would you describe the ownership status of the establishment? 1 = UK and foreign owned or predominantly foreign owned (51% or more) or foreign owned or controlled, 0 = otherwise.
Single independent UK estb.	Same as Appendix 5
Age of establishment	For how long has this establishment been operating at this address? (Continuous variable Minimum 0 years-997 years).
Recognised union	Same as Appendix 5

Note : Most of the questions from the WERS98 data set have been rephrased in the interest defining the variables used in this thesis

Appendix 7: Definition of Variables for Share-Ownership Schemes and Employee Turnover

Variable	*Appendix 7: Definition*
Independent and Dependent Variables	
share-ownership schemes, Hicover, Hipart, PRP and Pshare, Betterfp and Betterlp	Same as Appendix 5
Employee Turnover (LogQuit)	During the last twelve months how many permanent employees stopped working here because they resigned voluntarily? Log of total number of part-time and full-time employees that resigned voluntarily.
Contextual Variables	
Individual Controls	
Sectors	Same as Appendix 5
Establishment size	Same as Appendix 5
Establishment Status	
Independent establishment	Same as Appendix 5
Private sector	How would you describe the formal status of this establishment? Is it privately or publicly owned? (1= Private sector company or Private sector-other; 0 = Public sector)
Union Presence	Same as Appendix 5
Grievance handling procedures	Are there any formal procedures for dealing with collective disputes raised by any group of non-managerial employees (1/0, Yes/No).
Pay	
% full time employees getting more than £22,000 p.a	% full time employees earning more than £22,000 p.a. to total full-time workforce currently in the establishment
Employment contract	
% of part time employees	% part-time workers to total workers to total workforce currently in the establishment.

Variable	*Appendix 7: Definition*
Gender	
% of female employees	% of part-time and full-time female employees to total workforce currently in the establishment.
Ethnicity	
% of non white employees	% of current workforce from non ethnic background to the total workforce currently in the establishment.
Age	
% of employees under 20years	% of current workforce aged under 20 years to the total workforce currently in the establishment.
Occupational distribution	
% of unskilled workforce	Same as Appendix 5
% sales	% of full-time and part-time sales staff to the total workforce currently in the establishment.
% technical and scientific	% of full-time and part-time technical staff to the total workforce currently in the establishment.
% Clerical	% of full-time and part-time clerical and secretarial staff to the total workforce currently in the establishment.
% craft and skilled	% of full-time and part-time craft and skilled services staff to the total workforce currently in the establishment.
% operative and assembly	% of full-time and part-time operative and assembly staff to the total workforce currently in the establishment.
% professional	% of full-time and part-time professional services staff to the total workforce currently in the establishment.

Note : Most of the questions from the WERS98 data set have been rephrased in the interest defining the variables used in this thesis.

Appendix 8: Definition of Variables Employee Turnover and Organisational Performance

Variable	*Appendix 8: Definition*
Independent and Dependent Variables	
share-ownership schemes (Empshare), Hicover and Hipart, Betterfp and Betterlp	Same as Appendix 5.
Fitted values of employee turnover	
Contextual Variables (Same as Appendix 5)	

Note: Most of the questions from the WERS98 data set have been rephrased in the interest defining the variables used in this thesis.

Appendix 9: Key Hypotheses

Employee Share-Ownership (ESO) schemes and organisational performance	
Hypothesis 1	The presence of an ESO scheme has a positive and significant association with organisational performance.
Hypothesis 2	ESO schemes will have a stronger positive association with labour productivity relative to financial performance
Hypothesis 3	Share-ownership schemes that are introduced in the non-manufacturing sector are associated with higher performance outcomes relative to those introduced in the manufacturing sector.
Hypothesis 4	Share-ownership schemes when introduced in unionised establishments will have a stronger positive impact upon labour productivity relative to share-ownership schemes in non-union establishments.
Hypothesis 5	The positive and significant association between presence of ESOS and performance will remain unchanged even when other participation in decision-making schemes are present.
Hypothesis 6	Employee Share-Ownership schemes will have a stronger positive association with financial performance whereas; participation in decision-making has a stronger positive association with labour productivity
Hypothesis 7	Different types of participation in decision-making schemes have a differential effect upon performance outcomes.
Hypothesis 8	When share-ownership schemes are introduced alongside certain types of formal participation in decision-making higher performance outcomes are expected relative to the presence of ESOS alone.
Hypothesis 9	The positive and significant association between presence of ESOS and performance will remain unchanged even when other financial participation schemes are present.
Hypothesis 10	ESO schemes have a weaker positive association with the performance outcomes in comparison to the cash-based profit sharing schemes.
Hypothesis 11	The presence of ESO schemes combined with other financial participation schemes will have a stronger effect upon performance outcomes as compared to the presence of ESOS alone.
Hypothesis 12	A majority participation in ESO schemes will have a stronger positive association with performance as compared to majority eligibility in the share-ownership schemes.
Hypothesis 13	When the majority employees participate in the share-ownership schemes , higher levels of performance are observed compared to the presence of share-ownership schemes.
Hypothesis 14	When a unionised share-ownership establishment has majority participation in share-ownership it is associated with stronger performance outcomes compared to unionised establishments with majority eligibility or where some form of ESOS is present.
Hypothesis 15	When majority participation in share-ownership schemes coexist with formal employee participation schemes the performance outcomes are higher than when majority eligibility or presence of ESOS co-exists with employee participation.
Hypothesis 16	Establishments in the non-manufacturing sector with a majority-participation in share-ownership have higher performance compared to those that have a majority-eligibility in share-ownership or have share-ownership presence irrespective of coverage.

ESO schemes and affective commitment	
Hypothesis 17	The presence of share-ownership schemes has a positive effect upon the feelings of affective commitment
Hypothesis 18	ESO schemes continue to have a positive and significant association with commitment even when employee participation schemes are present
Hypothesis 19	When employees in share-ownership firms have participation in decision-making, higher levels of commitment are observed relative to the presence of share-ownership alone.
Hypothesis 20	Commitment levels are higher when employee share-owners can contribute to decisions directly related to their jobs compared to decisions that concern the organisation as a whole.
Hypothesis 21	The positive relationship between ESO schemes and commitment levels will exist even if other financial participation schemes are present.
Hypothesis 22	When the majority of employees participate in share-ownership schemes, higher levels of commitment are observed compared to a situation when the majority of employees are eligible for the scheme
Hypothesis 23	When majority of the employees participate in the share-ownership schemes higher levels of commitment are observed compared to a situation when majority of the employees are eligible for the scheme.
Hypothesis 24	When a majority of employees participate in share-ownership schemes, higher levels of commitment are observed compared to a situation when employees belong to firms where Employee Share-Ownership schemes are present
Hypothesis 25	Employee Share-Ownership (ESO) establishments where a majority of employees own shares and have participatory rights have higher commitment levels than in those establishments where employees have similar participatory rights and a majority of the employees are eligible for share-ownership
Hypothesis 26	ESO establishments where a majority of employees own shares and have participatory rights have higher commitment levels relative to those share-ownership establishments where share-ownership schemes are present (irrespective of coverage) and the employees have participatory rights
Hypothesis 27	ESO schemes enhance organisational performance through higher commitment levels
ESO schemes and employee turnover	
Hypothesis 28	The presence of ESO schemes is strongly and negatively correlated with employee turnover.
Hypothesis 29	When a majority of employees participate in share-ownership schemes, levels of employee turnover are lower than in cases where the majority of employees are eligible for share-ownership.
Hypothesis 30	When a majority of employees participate in share-ownership schemes, the levels of employee turnover are lower than in cases where share-ownership schemes are present irrespective of coverage.
Hypothesis 31	ESO establishments are more likely to influence labour productivity rather than financial performance through lower levels of employee turnover

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