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Testing the inefficient management hypothesis: Are United Kingdom mergers and acquisitions disciplinary?

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ABSTRACT

A large body of research has examined the impact of takeovers on corporate performance. Although there has been a considerable volume of research on the wealth effects of takeovers to date, there has been very little evidence on the disciplinary role. The aim of this study is to contribute to the takeover debate by examining whether UK takeovers are disciplinary.

This study replicates previous findings on whether the market for corporate control benefits firm managers or whether it is an avenue to maximise shareholder wealth. This study examines 153 UK takeover bids in the period 1990 to 1997. This period was chosen because it coincides with the publication of the Cadbury Report in 1992 when issues of corporate governance were raised and prescriptive recommendations were made to safeguard shareholder investment.

In this study, results based on the evaluation of the share price suggest that targets of a takeover bid under-perform in the period prior to the bid. Accounting results also suggest that targets under-perform in the same period and this is consistent with the view that takeovers perform a disciplinary function when assets are reallocated to their most productive use. However, post bid share price performance shows modest improvement while accounting results suggest that managers of bidding firms fail to improve the operating performance of the combined firm. The findings of this study therefore dispel the notion that takeover bids are made in shareholders’ interests. The results suggest that UK takeovers are not disciplinary, but are undertaken to generate short-term economic benefits to managers at the expense of shareholders.
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CHAPTER 1
INTRODUCTION

1.1 STUDY OVERVIEW

News about mergers and acquisitions are dominating the financial press in market economies today. The announcement of a merger or an acquisition conveys certain information about the acquiring and target firms involved and their management. Mergers and acquisitions fall under the category of corporate structuring with the view to make the firms more efficient. Stakeholders in this area, including shareholders, corporate managers, the academia, the public at large and the financial press have examined the benefits of mergers and acquisitions and report that the merger phenomenon indeed is the alternative answer to quick corporate growth. In the same vein, some have questioned whether these business combinations benefit the ultimate owner, the ordinary shareholder or whether managers use mergers to advance their interests and marginalize shareholders (Williamson, 1964). As a result mergers and acquisitions have provoked debate in the academic sector on the justification of mergers and acquisitions in market economies. One body of research alleges that mergers and acquisitions are beneficial because they are used for quick corporate growth, which in turn generates bigger profits for shareholders in the future and favorable wealth effects for shareholders around the date of announcement of the acquisition (Jensen 1988). Market studies however suggest that higher gains accrue to target firm shareholders while bidding firm shareholders do not benefit from acquisitions. This hypothesis does not support the view that managers of acquiring firms act on behalf of shareholders when they take the acquisition decision purportedly to maximize shareholder wealth. Other studies suggest that mergers and

Mergers are defined as business combinations where both firms combine their financial and human resources to operate as one firm. Acquisitions are described as those that occur when one firm acquires more than 51% of the shares of another firm with a view to control its management and its assets. When viewed in the disciplinary light, mergers and acquisitions are defined as those that are preceded by poor performance for target firms and superior performance for bidding firms. The objective of this study therefore is to find further evidence, as to whether targets of a UK takeover bid under perform in the period prior to the bid.

A number of studies suggest that there is no difference in the prior performance of target and non target firms, and also that there is very little tangible evidence as to whether firms involved in takeover bids improve performance in the period following takeover bids. If this is true, then takeovers occur for other reasons other than performing a disciplinary function. Due to the apparent differences in the results in previous research on whether targets under perform bidders or other firms in similar economic environment, this study aims to contribute to the takeover debate by examining whether the UK takeover market is disciplinary, that is, whether the takeover mechanism is used to remove inefficient managers and replacing them with efficient managers. The disciplinary role is further enhanced if shareholders of target firms are unable to discipline a poor performing management team due to ineffective internal controls. The takeover market, in this situation, is viewed as a court of last resort (Jensen 1988).
Further, this study examines whether the disciplinary role of takeovers for UK firms is declining due to improvements in corporate governance compliance in the period around the publication of the Cadbury Report 1992.

Although mergers and acquisitions aim at increasing shareholders wealth, a number of studies suggest that corporate mergers fail because acquiring firm stock prices are likely to decrease when mergers are announced. Most acquired companies are sold off after the merger, as profits do not improve after the acquisition of poorly performing firms.

1.2 MOTIVATION

It is interesting to find that firms continue to seek corporate growth through mergers and acquisitions but fail to achieve that purpose and yet continue to use the firms’ financial resources on these transactions in unprofitable business combinations. The debate on the usefulness and effectiveness of takeovers as a disciplinary mechanism is ongoing. Evidence of whether targets of a takeover bid under perform prior to a takeover bid is still scanty in UK as most focus on the wealth effects of a takeover bid and very little focus on the disciplinary role (Franks, Harris and Titman, 1991; Franks and Harris, 1989; Kini, Kracaw and Mian, 1995). The aim of this study to fill this gap by examining, whether targets of a takeover bid perform poorly when compared to corresponding bidding firms in the period prior to the bid. In the spirit of Fama, Fisher, Jensen and Roll (1969), Barber and Lyon (1996), and Ghosh (2001) this study evaluates share price around the dates of announce of the bid and also examine the operating performance of both bidders and targets in the period prior to the bid year. Post bid operating performance is also compared to pre bid operating performance to determine
whether takeovers are profitable. This study also explores the effects of corporate control arising from the different roles management and shareholders play in making corporate decisions made in the best interest of the firm.

1.3 RESEARCH OBJECTIVES

The main objective of this study is to provide evidence as to whether takeovers are disciplinary. Specifically, the study provides evidence on whether the pre bid performance of bidders is superior to that of target firms and that firms become targets of a bid because of poor performance. Secondly, this study examines the performance of firms in bids that are perceived as disciplinary and compared with other firms operating in the same market but perceived not to receive a bid because of superior performance. These bids are those that report changes in top management following a successful bid and those bids that are hostile. Thirdly, this study provides evidence as to whether there are improvements in corporate performance for firms in both successful and lapsed bids. In order to achieve these objectives the study will test for evidence on the disciplinary role of take-over bids by analysis of financial characteristics of companies involved in friendly and hostile bids and by examination of the characteristics of target companies that survive unwelcome bids.

This study focuses on two broad hypotheses. The first hypothesis is that bidders are likely to be more profitable than targets in the period prior to the takeover bids. The second hypothesis is that targets surviving unwelcome bids will improve their financial performance following the abandonment of the bid.
1.4 SIGNIFICANCE OF THE STUDY

Takeovers should lead to gains in share price performance and improved profitability due to increased efficiency (Jensen, 1984). Although there has been considerable body of evidence on the wealth effects of take-over, to date there has been little evidence on the disciplinary role for UK takeovers except for Franks and Mayer (1996) and Kini et al. (1995). Kini et al., report that take-overs are a direct consequence of the breakdown of internal control mechanisms. Weak internal controls may be due to sub-optimal corporate governance characteristics such as duality, large shareholdings for top management, board composition having fewer outside directors and dispersed shareholders. Where such weak corporate governance characteristics dominate, it is most unlikely that management over ride of internal controls will be addressed. The motivation for this study is to find further evidence on the disciplinary role of takeovers by using a UK dataset in the period around the Cadbury Report 1992.

1.5 RESEARCH METHODOLOGY

The current study focuses on takeovers of UK companies that were announced in the period 1st January 1990 to 31 December 1997. The takeover sample excludes firms that are not listed on the London Stock Exchange, and foreign firms due to the view that accounting and share price data may be difficult to consolidate because of different reporting currencies. The initial sample of takeover bids is composed of 738 bids that were made in the period from 1 January 1990 to 31 December 1997. The sample period has been chosen to coincide with the period around the issue of the Cadbury Report of 1992. The Cadbury Report deals with issues of corporate governance that protect
shareholders investment from management misallocation of financial resources by strengthening internal controls (Cadbury, A., (1992)

There are two research approaches generally employed in addressing the impact of takeover bids on shareholders and the discussion of the superior measure is elucidated in the Linn and Switzer (2001) study. One approach is to use share price data to estimate the distribution of gains and losses to shareholders. Share price studies are based on event study methodologies that have focused on announcement period returns. The method for evaluating share price performance around the date of announcement is the event study approach of Fama, Fisher, Jensen and Roll (1969) which focuses on examining the cumulative abnormal return in different event periods around the takeover bid. The second approach for evaluating the performance of firms involved in this study is by using accounting data where the accounting measure of performance is operating performance focusing on profitability. Evaluation of mergers and acquisition based on the analyzing accounting data intended to assess the economic impact of acquisitions by testing for changes in the profitability of the combined firm. This study evaluates accounting performance using the industry and size adjusted operating performance return benchmark (Healy, Palepu and Ruback, 1992 and Ghosh, 2001).

1.6 CHAPTER ORGANISATION

This study is organized as follows. Motives of takeover bids, classification of takeover bids, and review of previous evidence are discussed in chapter 2. The research methodologies are discussed in chapter 3. Empirical results for share price performance are reported in chapter 4. Accounting results are reported in chapter 5. Chapter 6 is the summary and conclusion of the study.
CHAPTER 2
MOTIVES AND CLASSIFICATION OF TAKEOVER BIDS

2.1 CHAPTER OBJECTIVES

The main objective of this chapter is to examine reported motives for mergers and acquisitions in order to distinguish disciplinary from non-disciplinary bids. The second objective of this chapter is to review how takeover bids are classified in literature. The third objective is to review evidence for bids that are perceived to be disciplinary.

2.2 JUSTIFICATION FOR DISCIPLINARY BIDS

Modern corporations, by nature are run by managers with a view to make profit for shareholders (Berle and Means, 1936; Coarse, 1937; Hindley, 1969 and Donaldson, 1984). A takeover bid is an offer by a company to the shareholders of another company with a view to take over the control of that company. This is consistent with the shareholder wealth maximization theory whereby one firm bids for another with the view to maximize shareholder value and improve operating performance (Bhagat, Shleifer and Vishny (1990). Managers of the acquiring firms believe that if they takeover the control of target firm’s resources they will maximize shareholder value (Jensen and Ruback, 1983; Limmack 2000). The increase in value of shares for the combined company is usually expected to arise from synergy, replacement of the management of the target firm, and, disposals of sub optimal assets following successful takeover bids (Martin and McConnell 1991).

Financial literature posit that a takeover is a disciplinary device for identifying and disciplining managers who under perform, due to complacency, inefficiency, lack of tact, poor organizational skills as well as pursuing excessive corporate growth at the
expense of the owners of the firm (Baumol, 1959). In the market for corporate control, predators monitor the under performance of firms and launch takeover bids (Jarrell, Brickley and Netter (1988). Once successful the acquiring firm managers may remove the under performing managers and replace them with managers of their choice (Chatterjee, 1986). Grossman and Hart (1981), and Scharfstein (1988) view the takeover as a disciplinary device that motivates managers to perform better. Jensen and Meckling (1976) argue that a takeover plays a disciplinary role as an alternative device where internal disciplinary mechanisms fail or are ineffective. A disciplinary takeover is also the means to prune out dead wood (Walsh and Ellwood, 1991)

Acquisitions are viewed as a mechanism by which the market replaces incompetent management (Manne, 1965; and Solow, 1967). The market expects bidding firms to improve the management of target firms and thereby increase net cash flows. In this respect, the market enables investors to systematically identify and purchase undervalued stocks. Acquiring poorly managed firms and removing incumbent management, or at least changing existing management policy or practices, should make these firms more valuable, allowing the acquirer to claim the increase in value.

The announcement of a takeover bid therefore conveys certain information about the target firm. Capital market studies suggest that the market will impound anticipated performance gains in the share price of the target firm during the announcement period (Sharma and Ho, 2002). Managers of acquiring firms believe that some target firms are poorly managed and to improve those companies the firm should be acquired and dismiss the incumbent management team. The replacement of the incumbent management may then be a source of gains for the acquired entity (Mandelker, 1974). This assertion is
based on the assumption that the acquiring firm’s performance is superior to that of the acquired firm. In this scenario, the takeover becomes an avenue where managers of poorly performing firms are replaced by better performing managers. The poor performance of the target firm is attributable to the incumbent management of the firm, rather than to market or industry factors beyond management control. Change in top management or change in management practices should follow the takeover.

Manne (1965) suggests that the existence of the market for corporate control provides the opportunity for shareholders of the target firm to profit from a merger especially when they sell their shares to the acquiring firm at a premium. According to Manne’s theory of corporate control, takeovers are disciplinary in nature, and they are designed to remove under performing and ineffective management. Shleifer and Vishny (1997) argue that takeovers exist to ensure that under performing management is removed when target shareholders accept a tender offer from the acquiring company.

It is also a common occurrence that takeover bids fail. Some managers of target firms view the takeover as a threat to their job security and such it acts as a spur to improve the operating performance of the target firm. These managers feel threatened by takeovers as they impinge on their discretion to control the firm exposed to takeover bids. Some managers address this threat by making decisions that improve the performance of their firms as well as taking other counter measures such as exposing weaknesses in the performance of bidding firms.

The disciplinary theory of takeovers first came light after studies by Alchian (1950), and Marris (1963), among others, who suggest that there are three broad theories that explain the incidence of disciplinary takeovers. Firstly, takeovers are seen as a means
of identifying and eliminating managers, who are static, are inefficient, and display organizational slack. Secondly, disciplinary takeovers arise where managers of target firms sacrifice profit as they pursue corporate growth at the expense of shareholders (Baumol, 1959 and Marris, 1963). Chatterjee (1986) reported that managers who sacrifice shareholder interest in order to maximize their own interests find their companies taken over by a predator who can restore the company’s profitability and realize a substantial capital gain.

An inefficient management is defined as one that does not maximize shareholder value, or one that maximizes own interest at the expense of shareholders. At the same time the threat of a takeover constrains managerial behavior towards value maximization, assuming the dominant managerial objective is growth maximization, which is inconsistent with value maximization.

The disciplinary motive for takeover also stems from the assumption that poor performance of a firm is the caused by a management that is reckless, inefficient and self-centered (Agrawal, Jaffe and Mandelker, 1992). Since a takeover is a means by which managers may be disciplined or displaced, new owners can impose the much-needed discipline after the acquisition (Walsh, 1988, 1989). This is called the inefficient management hypothesis (Brearly and Myers 2000). In capitalist economies, corporate performance is the standard for assessing management efficiency and managerial efficiency is observed when shareholder wealth is maximized (Scherer, 1988). Disciplinary takeovers are common where corporate managers do not pursue value-maximizing behavior, which may lead to the inefficient use of the resources under their control.
In a disciplinary bid, target firms are associated with under performance in the period prior to a takeover bid. Target firms in a disciplinary bid are also associated with changes in the management of the firm following the bid. Improvements in the operating performance and economic gains following takeover bids also suggest poor managerial performance of target firms (Brown and da Silva Rosa, 1997).

Weston, Chung and Hoag (1990, p. 192) define inefficient management as failure by management to perform to its full potential or just an inept management. The inefficient management hypothesis also assumes, in the first instance, that shareholders of acquired firms are unable to discipline their own managers and thus it is necessary to invoke the costly mergers to replace inefficient managers. Fama (1980), however, argues that the discipline of managers comes through managerial labor markets. Manne (1965) argues that the acquiring firm’s managers must be familiar with the operations of the target if they believe they can improve its performance. Proponents of the theory may argue that mergers do not imply the inability of the owners to replace their inefficient managers, but the scarcity of able managers in the market (Weston et al, 1990). Secondly, the assumption is that if the replacement of the incompetent managers is the sole motive for the merger, then the target could be operated as a subsidiary. Replacement of managers via the takeover process is an indication that disciplining an inefficient management is a motive taken concurrently with other motives for takeover and thirdly, that the managers will be replaced post takeover if any improvement in the acquired firm could be made or observed.

The inefficient management hypothesis posits that the market for corporate control is the court of resort and it useful when internal control mechanisms do not work.
These mechanisms involve those that are internally initiated within the corporation and those that are available by the outside market for corporate control (Denis and Denis 1995; Warner, Watts, and Wruck 1988; and Wiesbach 1988). Internal control mechanisms include competition by managers within the firm the control function of the board of directors and the monitoring role of large shareholders (Weston et al., 1990, p.458). External mechanisms may be invoked when internal mechanisms fail to correct managerial failure.

The main internal control mechanism is the board of directors (Wiesbach 1988). Consistent with this view, Sudarsanam (1995) reiterated that the board structure has been identified as an important component of effective monitoring, especially where its composition consists of a sufficient proportion of independent or non-executive directors and the separation of the role of chairman of the board and the chief executive officer. Morck, Shleifer and Vishny (1988) provide evidence that the board of directors can effectively deal with the problems affecting the firm and that when a company under performs its relatively health industry, it is easier for the board to assess blame and fire top management.

The second internal control mechanism is the monitoring function by large shareholders (Shleifer and Vishny, 1986; Stulz, 1988). Shleifer and Vishny suggest that the increase of shareholding by large shareholders has implications on the probability of the large shareholder making a tender offer and taking over the firm eventually, and the large shareholder taking up control through the voting process. They also assert that the large shareholder monitors the firm’s management and engages itself in jawboning, proxy contests and takeovers as needed. Stulz (1988) also provides evidence that large
shareholders provide some monitoring process on managers. Monitoring by creditors, especially financial institutions also provide a way to control unacceptable managerial behavior (Brearly and Myers, 2000).

The third internal monitoring mechanism includes appropriate incentive structures to align managers’ interests with those of shareholders. Agreements are also made where compensation is tied to performance. Such compensation agreements include bonuses and executive stock options over and above a reasonable pay and other perquisites.

The disciplinary motive of takeover motive argues that takeovers are a mechanism by which managers of a firm who fail to maximize its market value are replaced by efficient managers. Since takeovers may result in the replacement of poorly performing managers, the threat of a takeover also provides a useful mechanism for encouraging managers to pursue shareholder wealth maximization strategies and this is more prominent in failed bids.

When internal mechanisms are not sufficient to control agency problems the market for corporate control provides an external control of last resort (Manne 1965, Jensen and Ruback 1983). Shareholders look to external control mechanisms especially when the board of directors becomes ineffective. Sudarsanam (1995) confirmed that the independence of non-executive directors might not always be assured. In fact, the external control mechanisms are invoked when all internal controls have failed to address managerial failure (Jensen and Meckling, 1976).

Denis and Serrano (1995) argue that corporate managers who depart from value maximizing policies can be replaced through either board dismissals or takeovers. A takeover through a tender offer or proxy fight enables outside management to gain
control of the decision processes while circumventing existing managers if a firm’s management lagged in performance either because of inefficiency or because of agency problems. The effectiveness of takeovers as a disciplinary mechanism is the replacement of the managers of the acquired firm.

Mayer (2000) identifies disciplinary takeovers as those with the following characteristics. Firstly, there must be evidence of poor relative performance of target firm prior to the takeover. Secondly, there must be evidence of the departure of the target firm’s inefficient managers following the takeover and thirdly, the acquired firm’s assets are used more efficiently following the takeover.

Martin and McConnell (1991) identify disciplinary takeovers as those where the top manager of the target firm leaves the firm for non-normal reasons soon after the takeover. Normal reasons include normal retirement such as having reached the retirement age, or, having been voted out of office in a normal annual general meeting, or, illness or death. They also identify disciplinary takeovers as those preceded by poor performance of the targets firms.

Franks and Mayer (1996) examine the disciplining function of hostile takeovers and look at the evidence of the dismissal of target firm managers, significant corporate restructuring following takeover and poor prior performance by firms subjected to hostile bids.

Dahya and Powell (1996) examined UK takeovers and found that takeovers are followed by target management dismissals and significant corporate restructuring. They also found that targets under perform in the period prior to takeover bid.
2.3 MOTIVES FOR DISCIPLINARY BIDS

2.3.1 SYNERGY AND TOP MANAGEMENT CHANGES

Financial literature distinguishes motives for takeover bids that maximize wealth and those that destroy wealth. Motives of takeover bids that are perceived to benefit shareholders include those that generate gains from synergy (Limmack, 1994). Takeover bids motivated by synergistic reasons contend that two firms combined operate more efficiently and are worth more together than separate (Bradley, Kim and Desai, 1988; Jensen and Ruback 1983; Morck, Shleifer and Vishny 1988).

Synergy is defined as the potential additional value from combining two firms. Synergy is the difference in value of the combined company as a single entity and the values of the individual companies. Synergy is sub-classified into operating synergy and financial synergy. Operating synergies enable companies to reduce unnecessary expenditure arising from complimentary activities thereby improve its efficiency (Penrose, 1959 and Porter, 1987). Sources of operating synergy include economies of scale, greater pricing power, combination of different functional strengths and higher growth in new or existing markets. Sharing fixed assets improves efficiency as it reduced costs by using the same infrastructure for an increased number of operations. Operating synergy, on the other hand, arises in vertical and horizontal acquisitions, and sometimes in conglomerates and in unrelated acquisitions (Mueller, 1977; and Hughes 1993). On the other hand, financial synergies arise inform of higher cash flows or a lower cost of capital. Financial synergies can lower the costs of internal financing as compared to external financing. Takeovers create an opportunity for combination of a firm with excess cash but with limited project opportunities with another firm with high return projects but
with limited cash. Financial synergies also arise from increase in debt capacity. The increase in debt capacity allows companies to improve their cash flows because the combined firm would borrow more as one firm than they would as individual entities. Financial synergies also arise in takeovers in form of tax relief when some profitable companies acquire loss-making firms to reduce the tax burden (Lewellan, 1971 and Choi and Phillipatos, 1983).

Managerial synergy also arises from combination of two or more firms. Managers of acquired firms may be replaced after the takeover bid. This may be due to overlapping responsibilities between acquiring firm management and acquired firm management. In most cases however, managers of the acquired firm are replaced if they do not possess firm specific technical skills that would be essential in the combined firm.

2.3.2 ACQUISITION OF UNDervalued FIRMS

Takeovers also benefit shareholders of the acquiring firm when their firm acquires undervalued firms. Mergers are a form of investment (Arnold, 2005) and should be evaluated on essentially the same criteria as other investment decisions. Some companies that are undervalued by financial markets can be targets for acquisition by those who recognize this mis-pricing. The acquirer purchases the undervalued firm at a price lower than it is actually worth. The acquired firm adds value to the acquirer by the difference in value between purchase price and actual value (Berger and Ofek, 1995; and, Comment and Jarrell, 1995). In order to realize this gain, the acquirer should be able to identify firms that trade at less than their true value. The managers of bidding firms may possess superior information about the target firm and acquire the assets of the firm at a discount (Myers and Majluf, 1984; Ravenscraft and Scherer, 1987). If managers of the bidding
firm have this superior information, they will bid for the target firm with a view to gain
from the acquisition (Pound, 1988). Bradley, Kim and Desai (1983) refers to possessing
asymmetric information about an undervalued firm as: ‘sitting on a golden mine
hypothesis’ Managers of bidding firms may have private information such as future
growth opportunities, strategic market position as well as sitting on land that may have
oil deposits which other market participants may not be aware of. The sitting on a gold
mine hypothesis however suggests that it is in conflict with the efficient market
hypothesis where the share price of an asset should reflect all available information. In
this case, the bidder may offer to acquire shares in such firms at below their true value.
An efficient market is defined as one where the share price of a firm fully incorporates all
available information on that security and that share price provides accurate signals for
resource allocation.

2.4 CLASSIFICATION OF TAKEOVER BIDS AND DEVELOPMENT OF
HYPOTHESES FOR THIS STUDY

Financial literature suggests that pre bid characteristics have an impact on post bid
returns (Agrawal and Jaffe, 1995, 2003, and, Gregory, 1997). Takeover bids are therefore
classified according to whether they are disciplinary or non-disciplinary, friendly or
hostile, and, successful or unsuccessful bids.

Literature suggests that disciplinary bids are more likely to be hostile while non-
disciplinary bids are likely to be friendly (Morck, Shleifer and Vishny 1990). Other
studies define disciplinary takeovers as those that are followed by top management
changes following successful bids (Martin and McConnell 1991). Sometimes managerial
replacements arise due to the retirement of the incumbent top executive of the firm or by
death. In such cases, a successful takeover bid speeds up the turnover. Disciplinary bids are also defined as those that target poorly performing firms. Non-disciplinary bids are those that may or may not be preceded by poor performance of target firms and those that may not be followed by replacement of top management other than due to routine retirement of incumbent.

In view of this classification, the first hypotheses for evaluating pre acquisition corporate performance is based on the premise that target firms under perform prior to a takeover bid:

\[ H1 \quad \text{Targets perform worse than bidders in the period prior to a take-over bid} \]

\[ H2 \quad \text{The pre bid performance of targets where there is management change following the bid is worse than the pre bid performance of targets where there is no top management change.} \]

The outcome of a successful takeover bid automatically transfers control of the acquired firm to the acquiring firm management. Following a successful bid, the acquired firm’s managers may be dismissed, demoted, or they may voluntarily resign. However, some managers of the acquired firm can be retained if they have requisite firm specific technical skills.

Not all take-over bids are successful (Limmack, 1991; Pickering, 1976; Dennis and McConnell, 1986 and Parkinson and Dobbins, 1993). Target firm management may successfully contest a takeover bid until it lapses. Some contests depend on whether the price offered for shares as sub-optimal, or the managers may desire to safeguard their jobs (Schwert, 2000). When the initial takeover bid is rejected for any other reason, a hostile bid is deemed to have occurred.
Some takeover bids that arise through the tender process. Such bids are more hostile in nature (Morck, Shleifer and Vishny 1988; Martin and McConnell 1991). Friendly bids are viewed as non-disciplinary and these are defined as those bids that target management recommend to shareholders to accept without any resistance (Bradley, Desai and Kim 1988, and Schwert 2000).

The second hypothesis is based on the view that hostile bids are more likely to generate more gains than friendly bids due to the disciplinary nature of hostile bids or due to overpayment for the target firm (Limmack 1993):

\[ H3 \quad \text{The pre bid performance of targets in hostile bids is worse than the pre bid performance of targets in friendly bids} \]

Takeover bids are also distinguished based on outcome of the bid (Bishop, Dodd and Officer 1987). Takeover bids involve behind the scenes negotiations between the managers of the bidding firm and that of the target firm. Bid outcome is defined as successful or lapsed bid. Successful bids are those bids that are concluded within the twelve-month period from the date of announcement. Lapsed bids are bids that are not concluded within twelve months from the date of announcement. At the same time, targets that survive takeover bids should exhibit improvements in corporate performance after the failure of the bid.

\[ H4 \quad \text{The pre bid performance of targets in completed bids is worse than the pre bid performance of targets in lapsed bids} \]

\[ H5 \quad \text{The post bid performance of bidders in failed bids is worse than the post bid performance of targets that survive takeover bids} \]
2.5 REVIEW OF MARKET BASED EVIDENCE

Stock market data has been used to evaluate the performance of mergers to assess the abnormal returns gained by the shareholders of the merging firms (Jensen and Ruback, 1983).

2.5.1 PRE BID SHARE PRICE PERFORMANCE

Jensen and Meckling (1976) reported that acquiring firms earn positive abnormal returns prior to a takeover bid and that acquired firms may suffer poor returns in this same period. They found that acquisitions are undertaken by the more efficient companies and those acquisitions involve redeployment of capital to the more profitable firms. US studies report losses in the period prior to acquisitions (Langetieg 1978; Dodd 1980; Hubbard and Palia 1995 and Harford 1999). In the UK, most studies report that acquiring firms earned negative returns in the period prior to takeover bids (Firth 1979, 1980; Dodd and Quek 1985; Limmack 1991; and Sudarsanam et al., 1996). These studies also reported that acquired firms earn positive returns in the same period when acquiring firms make losses.


Mandelker (1974) examined mergers between NYSE bidders and targets for the period 1941 to 1962 by measuring stock return performance relative to the security market line. He found a cumulative abnormal return of –3% for targets over months (-40, -9) relative to the month of the merger completion.
Ellert (1976) examined the performance of merging firms in the period 1950-1970. He calculated the cumulative average abnormal return, using the 2-factor market model, and found that the CAR -11.7% for target firms over months (–100, -8) around the merger completion.

Dodd and Ruback (1977) tested the inefficient management hypothesis by examining the effect of corporate acquisitions on stockholder returns. They examined 136 successful tender offers during the period 1958 to 1976 using the market model and they found out that in the months (-12, -3) abnormal returns are positive.

Langetieg (1978) examined return performance 72 months before the merger completion for the period 1929 to 1969 and found that the firm’s pre-merger performance was not significantly different from zero.

Asquith (1983) examined 211 firms acquired over the period from 1962 to 1976. After adjusting for beta using the daily CRSP excess return file, he found that the cumulative abnormal return of these firms was – 14.8% over days (-480, -60) around the announcement.

Malatesta (1983) examined 85 merger targets between 1969 and 1974 involving acquisitions of at least $10million. The cumulative abnormal return of the target firms, calculated using the market model, over months (-60, -25) relative to the announcement was a statistically significant at 12.6%. He also found that the cumulative abnormal return over months (-60, -3) was 4.9%. These returns are inconsistent with that predicted by the inefficient management hypothesis.

Martin and McConnell (1991) examined 253 tender offer targets over the period from 1958 to 1984. They used the market model to measure abnormal performance.
They found that over months (-48, -3) around the announcement, the cumulative abnormal return was insignificantly different from zero. They however found that pre-takeover returns are significantly lower for firms where managers are replaced following the tender offer than for firms where managers are not replaced. Martin and McConnell conclude that the data they examined supports the hypothesis that takeovers are a device for disciplining the top managers of poorly performing firms.

Agrawal and Jaffe (1995) examined 132 mergers between NYSE acquirers and NYSE targets over the period from 1941 to 1961. They found that the cumulative abnormal return of targets over months (-60, -13) relative to the month of merger announcement was insignificantly different from zero.

Kini, Kracaw and Mian (1995) examined 244 successful tender offers over the period from 1958 to 1984 based on the market model. They found that the cumulative abnormal return over months (-48, -3) around the announcement was 2.44%. These results are not consistent with those predicted by the inefficient management hypothesis.

Franks and Mayer (1996) examined 33 successful hostile takeovers in the UK that were first announced during 1985 and 1986. They found that the abnormal return for this sample in the five years before the announcement was insignificantly different from the abnormal performance of a non-merging control group matched on size and industry. In their view, they found that hostile takeovers performed a disciplinary role.

Mitchell and Lehn (1990) examined 1,158 public corporations and they found that firms making bad acquisitions, as measured by announcement period abnormal returns, were more likely to be subsequently acquired than firms making good acquisitions are.
The authors supported the inefficient management hypothesis confirming that firms making a bad corporate decision were targets for takeover bids.

Palepu (1986) developed a model for predicting acquisition targets. Using a sample of 163 firms that were acquired from 1971 to 1979, he found that the likelihood of takeover was negatively related to a firm’s abnormal stock return.

Asquith (1983) reported that target firm’s residuals declined, on average, while bidding firm’s residuals increase on average prior to the announcement date for the period (-48, -20) days. In his view this was consistent with the hypothesis that acquisitions transfer resources from inefficient to efficient firms.

Schipper and Thompson (1983) found that firms announcing acquisition programs experienced positive abnormal returns beginning about 30 months before the announcements of the program. The cumulative abnormal return from month (-24) through to the announcement of the acquisition was over 20%

Magenheim and Mueller (1988) examined a sample of 78 acquiring firms and found significant positive gains being earned in the two years prior to the announcement month. Over the time interval of (-24, -4) months preceding the event, acquiring firms earn significant positive returns of 18.4% in excess of the expected returns based on their performance over the period (-60, -25) months.

Kennedy and Limmack (1996) report that target companies earned significant negative returns in years two (-24, -13) and years five (-60, -49) prior to the bid. Acquiring firms obtained significant positive excess returns for the whole period commencing 60 months before the bid month, consistent with the hypothesis that
companies undertake acquisitions during period of relatively good performance and that the takeover acts as a disciplinary mechanism on inefficiently performing targets.

Firth (1979) found that 58% of acquired firms earn slightly negative returns of -1.5% in the 36 month period ending 12 months before the bid. Franks, Broyles and Hecht (1977) reported that targets earned negative returns of -10.0% relative to the industry index between months -40 and -15 from the announcement date. The results are consistent with the view that acquired firms had poor performance prior to acquisition.

Firth (1980) found no evidence that acquired firms exhibited poor performance four years prior to the bid. Franks and Harris (1989) investigated shareholder wealth effects of UK takeovers in the period 1955-1985. They reported that bidding firms exhibited good performance prior to the acquisition.

Limmack (1991) examined the distribution of returns to shareholders of UK companies during the period 1977-1986. He found significant positive returns to bidders in the months prior to the formal announcement of the bid. The positive pre bid abnormal return to bidders supported the hypothesis that companies undertake acquisitions during period of good performance.

Dodd (1997) reported that targets achieve a mean of 25% abnormal returns in the month of announcement. Anderson et al., (1994) report that smaller target firms achieve a higher abnormal return prior to a takeover bid.

Bishop (1991) and Aitken and Czernkowski (1992) reported that target firm’s shares are re-valued upwards on disclosure of a substantial shareholding by prospective bidders. The revaluation is the result of the market assessment due to the pending takeover offer rather than a re-assessment of the underlying value of the target firm.
These findings are consistent with the hypothesis that firms experience abnormally good performance and have excess funds, which enable those companies to invest in other companies through the takeover mechanism.

Bugeja and Walter (1995) examined the relationship between the abnormal returns accruing to target firm and pre bid performance. They reported that there is no relationship when share prices performance is used to measure corporate performance.

McDougall and Round (1986) examined the pre acquisition accounting performance of acquiring firms in 88 takeovers that occurred between 1970 and 1981 in the retail, transport and industrial sectors. They report that acquiring firms exhibit higher profit levels than their targets.

Avkiran (1999) found that acquiring banks in Australia were more efficient than their targets in the pre acquisition period. Eddey and Taylor (1999) report that targets under perform in the period prior to a takeover bid. They contend those targets in hostile bids use accrual accounting to increase current earnings with a view to support their claim that the bid, relative to earnings, is inadequate and that targets in friendly bids use accrual accounting to decrease current earnings.

2.5.2 POST BID SHARE PRICE PERFORMANCE

Magenheim and Mueller (1988) suggested that in assessing the consequences of acquisition for acquiring firms it would be appropriate to look at the longer-run perspective of the firms. Accordingly, the next focus is the literature review on the post acquisition performance of bidders and targets after failed bids.

Generally, studies of share price post acquisition performance in the US and UK appear to produce consistent results, which indicate that acquisitions are detrimental to
shareholders of bidding firms. In summarizing US studies prior to 1980, Jensen and Ruback (1983) indicates that post acquisition share-price performance of acquiring firms averages abnormal returns of -5.5% during the twelfth month after acquisition. Jensen and Ruback (1983, p.20) interpret these negative post acquisition returns as ‘unsettling because they are inconsistent with market efficiency and suggest that changes in share prices during acquisitions overestimate the future efficiency gains from acquisitions’.

Post acquisition share price performance in Australia also suggests that acquiring companies exhibit underperformance consistent with the hubris hypothesis of takeovers (Walter 1984; Casey, Dodd and Dolan 1987). Walter (1984) examined the weekly returns to Australian bidders in completed takeovers and found that bidders experienced a cumulative average abnormal return of 28% over the period (-100, 0) weeks relative to the week of announcement. However, he also found that in the period –1, + 1 weeks the average cumulative abnormal return declined by 1.3%

Casey, Dodd and Dolan (1987) examine takeovers, which occurred between 1981 and 1986, and they report that the cumulative abnormal return declines to –2.42% in the two-day announcement window and –5.99% in the 15-day window. Brown and da Silva Rosa (1998) examine 655 takeover bids and report that the mean abnormal return of acquiring companies of 55 is earned over a seven month period

Walter (1984) and Bishop, Dodd and Officer (1987) also report on the share price performance in failed bids. Walter (1984) examined 97 unsuccessful bids for the period 1966 to 1972 and found out that they earned a 3.2% abnormal return in the period –1 week prior to the announcement of the bid. Bishop et al., (1987) reported that unsuccessful bidders experienced large positive abnormal returns.
2.6 REVIEW OF ACCOUNTING EVIDENCE

2.6.1 OPERATING PERFORMANCE PRIOR TO TAKEOVER BIDS

Singh (1971) examined the pre-acquisition characteristics of acquired firms and compared them with those of the surviving firms. Using both single and multivariate statistical analysis, he found that acquired firms tended to have low profitability, low growth, and low valuation ratios when compared with non-acquired firms. Singh also reported that the acquiring firms were significantly more profitable than the acquired firms but with similar profitability to non-acquiring firms.

Singh (1975) reported that the unprofitable firms taken over were smaller. The takeover process was therefore seen to provide a measure of discipline for less profitable smaller firms but not for large firms. Singh argued that firms could reduce their probability of being taken over by increasing their relative size without increasing their rate of profit. His view was that the takeover mechanism encouraged large relatively unprofitable firms to increase their size by acquiring other companies.

Meeks (1977) carried a similar study that examined the pre-acquisition characteristics of 233 acquiring and acquired firms during the period 1964-1972. Meeks found that the acquiring firms are significantly bigger than the acquired firms and that the profitability of the acquiring firms are higher than their industry average for each of the three years prior to the acquisition. However, the profitability of acquired firms was no better when compared to their industry average over the same period.

Cosh, Hughes and Singh (1980) examined the financial characteristics of bidders and targets and found out that there was little difference in the average in the pre bid
profitability of acquiring and acquired firms. They authors concluded that takeovers may not be an effective mechanism for resource allocation.

Holl and Pickering (1988) analyzed the financial performance of 282 UK firms over the period 1965-76 and reported that target companies were less profitable than their bidders and less profitable than target companies in failed bids. Holl and Pickering findings are consistent with the hypothesis that firms that do not perform well will be taken over.

Taffler and Holl (1991) examined the financial performance of 55 cases of abandoned acquisitions in UK during the period 1977-81. They found that bidders were no more profitable than their targets either in successful or abandoned bids. Neither did the targets in abandoned bids exhibit superior pre bid profitability performance to targets in completed bids.

Mueller (1980) examined 287 companies that were acquired over the period 1962-72. He found that the acquired companies had slightly higher pre-acquisition returns on assets than non-merging control groups, and nearly a percentage point higher than the average return in their home industries. He also reported that there was no difference in profitability of acquiring firms and that of acquired companies in the year before acquisition.

Palepu (1986) examined a sample of 163 targets and 256 non-targets in US during the period 1971-1979. He argued that only average excess returns, growth-resource variables and size variables give significant results. The results indicate that poorer share market performance and smaller size are likely to increase a firm’s probability of becoming a target. Further, firms with mismatch between growth and resources, that is,
low-growth, resource-rich firms (high liquidity and low leverage) and high-growth, resource-poor firms (low liquidity and high leverage) are more likely acquisition candidates. Palepu also provide evidence that the prediction models are not superior to that of the stock market in predicting acquisition targets as claimed by earlier studies.

Powell (1997) document that the larger the firm’s size, the lower the firm’s liquidity, the lower the firm’s profitability and the higher the firm’s market-to-book ratios, the higher the likelihood of a hostile takeover of a firm for the period 1984-91. On the other hand, the likelihood of a friendly takeover is higher when the firm is smaller and leverage higher. Powell’s results indicate that inefficient management and target under valuation hypothesis are more likely to be prevalent in hostile takeovers.

Hay and Liu (1998) provide evidence that acquiring firms with high profit rate, generating increasing cash flow and enjoying rising valuation ratios are more likely to make acquisitions. These authors examined the behavior of 110 UK manufacturing firms during the period 1981 to 1989. They found a positive coefficient on profit rate (gross post tax operating rates excluding depreciation and interest payments) and negative coefficients on debt/asset ratio, of 0.499 and –1.04, respectively. The results indicate that a firm with high forecast of cash flow and low debt/asset ratio are more likely to make acquisitions, consistent with Jensen’s (1986) cash flow theory that excess cash flows in the hands of management which are not needed to pay debt interest or dividend to shareholders are used to make acquisitions. A positive coefficient on the valuation ratio (market value) also indicates that investors are confident in the acquiring firms’ management and likely to be favorable to the acquired firms’ shareholders when the bid is made.
Mikkelson and Partch (1997) examined the relation between managerial turnover and performance of 200 US companies during an active takeover market (1984-1988) and a less active takeover market (1989-1993). They found that there are significantly higher frequencies of turnover among the lowest quartile of performers (measured by operating income scaled by assets) in the more active takeover period. The rate of complete turnover of top management among the highest quartile of performers 33%, more than double the turnover rate among the lowest quartile of performers (16%) in the active takeover years. In the less active takeover period, the rate of complete turnover is 17% in the lowest quartile of performers and there is no significant association between the rates of senior management turnover activity facilitates the replacement of managers of poorly performing firms and that corporate manager’s face less pressure to maximize value when the takeover activity diminishes.

2.6.2 POST BID OPERATING PERFORMANCE

A number of studies have examined the post acquisition performance of the combined firm to identify whether or not corporate acquisitions provide long-run economic benefits (Meeks and Meeks, 1981; Loderer and Martin, 1992). An assessment of the company performance is possible either by comparing the post acquisition profits of the target and bidding companies over a pre acquisition period with consolidated profits over a post acquisition period, or by comparison between merged and non-merging companies over the same period, in order to eliminate economic factors which would affect general profitability.
Lorie and Halpern (1970) found that merger active firms perform significantly better than less merger active or non-merging firms. Healy et al., (1992) and Jarrell (1995) found significant increases in post acquisition performance of the merged firms.

Ghosh (1998) also reported an improvement in post acquisition for merging firms. UK studies suggest that on average accounting performance of the acquiring companies were disappointing (Singh, 1971, Utton, 1974, Meeks, 1977 and Dickerson, Gibson and Tsakalotos, 1997).

Other studies (Cosh et al., 1980; Holl and Pickering 1988; and Manson, Powell, Stark and Thomas, 2000) show that acquiring firm profitability either increased, or remained the same following acquisition.

Mueller (1980) reported that the pre-tax profit rates (either on assets, sales or equity) of the combined firms relative to their industries were found to be lower after acquisition than before for all three-profit measures, indicating deterioration in the operating performance of the combined firms. Mueller (1980) also found declines in the rates of return on the acquiring companies’ shares over the period of acquisition and three subsequent years, which further strengthen the conclusion that acquisitions are not beneficial to the acquiring firms.

Ravenscraft and Scherer (1987) found that target firms were statistically more profitable, 8.18% higher than the industry average over all three years prior to acquisition. They measured profitability as the ratio of annual operating income to total end-of-period assets. By contrast, the acquiring firms who had acquired profitable target firms did not fare very well after acquisition. Over the three years 1975-77, the acquiring firms post acquisition profits was barely above that of the control group, and even in the
best year 1977, it was much lower than the average target unit’s pre acquisition level. Their results provide evidence that merging firms are usually less profitable than their non-merging counterparts and produces evidence that contradicts the theory of takeovers as an efficiency-increasing mechanism.

Philippatos and Baird (1996) examined firms with high performance making value-increasing acquisitions found that the change in the combined firms’ excess value of sales is negatively correlated with the acquiring firm’s pre acquisition performance. They found that the mean and median in the combined firms’ change in value are insignificantly positive. They also reported that acquisitions by well performing acquirers that does not show any improvements in their post acquisition performance may be driven by hubris and acquisitions of poorly performing firms may be viewed as a means of mitigating the factors that relegate them to undesirable competitive positions. Ravenscraft and Scherer (1987) reported that firms involved in acquisitions on average do not exhibit improvement in their post acquisition performance.

Singh (1971) reported that acquiring firms had better performance records than target firms prior to the bid. In analysing the profitability of the acquiring firms after takeover Singh (1971) found that in a majority of cases the profitability of the acquiring firms decline in the year of takeover through 2 years after takeover. Their view was that the results from their study suggested that it was very unlikely that the takeover process would lead to a more profitable utilisation of the existing assets of the firms.

Utton (1974) compared the profitability of 39 companies that were classified as intensive acquirers with that of a group of companies that grew through internal expansion, using the reported pre-tax profit as a percentage of net assets as a measure of
profitability. Their results showed that over the periods 1961-65 and 1966-70, the average profitability of the takeover intensive sample was lower than that of the internal-growth group. The average profitability of the takeover intensive firms fell from 13.6% to 11.5% and the control group from 15.4% to 14.2%. Similarly there was no indication that the takeover intensive firms have performed significantly better than the industry average firms. However, Utton (1974) used an unadjusted pre-tax profit performance, which could contribute to the bias in these results.

Meeks, 1977 and Cosh et al., (1980, 1989) compared post acquisition profit of the combined firms with their weighted average pre acquisition profitability, either relative to their industry average or to size and industry-matched non takeover firms. Meeks compared profitability in the year of the takeover and the following seven years, with that of the weighted-average profitability of the firms in the three years prior to the takeover after adjusting the firm’s profit relative to its industry. He found that on average profitability showed a significant decline for the five years following the acquisition from the pre acquisition level, suggesting that acquisitions have a negative effect on profitability. Cosh et al. (1980) also found that the net income on net assets of the combined firms decline on average by a significant 0.25% three years after acquisition compared with five years before acquisition.

In a study which compared the performance of companies involved in successful and failed bids, Holl and Pickering (1988) showed that the target and bidding companies that did not merge have better profitability than those that did merge for 3 years following acquisition. Their results suggest that the target and bidding companies that did not merge had better profitability than those that did merge for 3 years following
acquisition. They reported that target and bidding companies in failed bids obtained a significantly higher return on capital employed (4.3%) and return on equity (2.7%) than the target and bidding companies in successful acquisitions. Holl and Pickering (1988) also find that target companies in failed acquisition have significant higher growth rate, higher return on capital employed, and higher return on equity and retention ratio over the 3 years following the acquisition bid compared to 3 years before the bid. While their results indicate that acquisition does not seem to have a favorable effect on relative performance of the merged firms, the results suggested that the threat of takeover might have been a spur to efficiency improvement on the part of a target company not taken over.

Dickerson et al., (1997) analyzed the impact of acquisition on profitability of 2,941 UK quoted companies during the period 1948-77 and found that the mean rate of return on assets (pre-tax profit as a proportion of average net assets) of acquirers was significantly negative and 2.4% below that of non-acquirers. They also found that on average profitability increased by almost 6.9% in the long run through internal growth relative to only 0.2% by acquisition growth. Thus, their results are consistent with previous studies above that suggest that acquisition has a negative long-term effect on company performance as measured by profitability.

McDougall et al., (1986) study reported that bidders achieve higher profits than targets in the period prior to a takeover bid. However, they also reported that the post acquisition operating performance of merging firms is lower than pre acquisition operating performance.
Sharma and Ho (2002) examined 36 acquisitions that took place between 1986 and 1991 and they found that corporations did not lead to significant post acquisition improvements in operating performance.

Hyde (2002) examined mergers in the petroleum industry and found out that combined firms exhibit decreases in profitability and increases in inefficiency in the period after takeovers in comparison to the pre acquisition period.

2.7 SUMMARY AND CONCLUSIONS

The objective of this chapter was to review literature on the impact of takeovers on corporate performance. The chapter discussed some of the reported motives and the classification of takeover bids in financial literature. Managers of target firms are faced with the takeover threat if they under perform. The threat of a takeover is termed as a kick in the pants that seeks to encourage managers of the target firm to revise their policies and improve performance. However, takeovers send mixed signals. An ideal takeover therefore is one that is undertaken for synergistic reasons and the disciplining of inept and inefficient management. According to the welfare theory, all parties to the takeover are bound to benefit from this transaction. Acquiring and target firm shareholders benefit from takeovers when they realize higher returns from their investment after a takeover bid. The management of the acquiring firms benefits from successful takeover bids as these results in exerting control over a larger asset base and continued employment. Target firm managers also benefit from takeovers in form of golden handshake. In the end an ideal takeovers is one that makes acquiring firm’s shareholders better off and one that ensures shareholders’ interests take precedence over those of management.
On the other hand, acquiring firm shareholders stand to lose from the takeover transaction if acquiring firm management is overly optimistic about the perceived benefits from the takeover. There are different motives for takeover activity and some of them are not be driven by the desire to maximize shareholder wealth. Such takeovers are meant to maximize acquiring firm management at the expense of shareholders.

The different motives of takeovers arise because of conflicting theories of the firm. The traditional theory of the firm demands that shareholder wealth should be maximized so that shareholders get value from their investment. However, due to the complexities that arise from the existence of large corporations, ownership is separate from control such that managers make decisions that will ensure the firm survives into the unforeseeable future. To achieve this objective managers pursue corporate growth, increased market share, maximize share value, extract higher fees, minimize costs, management replacement and other similar objectives.

Takeovers are a means that enables a firm to achieve growth rapidly, especially in new or difficult markets without having to compete with existing firms in those markets. Takeovers are also a means of improving the level of efficiency in the combined firm. Finally, this chapter defines the direction this study is taking, that is, to examine to whether takeovers in the UK are disciplinary. In this respect, this study seeks to examine to whether shareholder wealth is maximized following acquisition of poorly performing and inefficiently managed firms.

The review of evidence suggest that takeovers in general, are benefit target firm shareholders but, accounting evidence suggest that acquisitions are not profitable in the end. The review of evidence is inconsistent with the view that takeovers are a mechanism
for transferring assets to their most productive use (Jensen and Meckling, 1976). The
review of evidence is also inconsistent with the view that takeovers benefit shareholders
of the acquiring the firm in form of increased future profits, which arise from gains
arising from synergy and replacement of inefficient managers of target firms.
CHAPTER 3

SAMPLE DESCRIPTION AND METHODOLOGY

3.1 CHAPTER OBJECTIVE

The objective of this chapter is to describe data, sources of the data and the research methodologies adopted in this study to examine the hypothesis that takeovers perform a disciplinary function over poorly performing firms. Shareholder wealth is measured by share prices (Ibbotson, 1975). This study examines the abnormal share price return and the cumulative abnormal return in different event windows, and evaluates operating performance prior to and after the takeover bid.

3.2 DESCRIPTION OF DATA AND SAMPLE SELECTION

This section describes data sources and sample selection for companies involved in takeover bids in the United Kingdom in the period between 1 January 1990 and 31 December 1997. The initial sample of 738 acquisitions of UK public companies by other UK public companies drawn from the Thomson Financial publication Acquisition Monthly editions for all takeover bids announced from 1 January 1990 to 31 December 1997. The sample period is selected to focus on bids around the publication of the Cadbury Report 1992.

For a bid to be included in the final sample, both the bidding and the target firms should be listed on the London Stock Exchange and share price data for the target firms should be available on the London Share Price Database. Details of the takeover bid include date of announcement, whether the bid is friendly or hostile, whether the bid is completed or has lapsed and whether the top management of the target firms voluntarily resign or are dismissed following the takeover are cross checked with news articles in the
financial press. The sample excludes all takeover bids made by foreign companies that are not listed at the London Stock Exchange and those firms whose share price data is not available on the London Share Price database. If a security does not have a minimum of 60 months of return data surrounding its event date, it is excluded from the sample. Data for calculating operating performance should be available on data stream. Multi-bids for the same target by one bidder made in the same accounting period (one year) are excluded, only one bid is taken and should either be included in the list of completed or lapsed bids. However, where a target receives several bids from different companies, all bids will be included in the sample if they are lapsed bids.

In this study, changes in the identity of top manager one year following the completion (or the lapse) of the bid are defined as disciplinary bids. The change in the position of top manager is documented after identifying the top manager of the target firm in the various editions of the London Stock Exchange Year Book, Directors and their companies for the period 1988 through to 1999. Evidence of routine and non-routine management changes in target firms was cross checked with data in the financial press most notably, the Lexis-Nexus website.

The second sub-sample is concerned with friendly and hostile bids. Hostile takeovers are associated with disciplinary takeovers, because of the assumption that resistance to the bid might not be in the interest of shareholders if the incumbent managers are threatened with post bid managerial changes in the combined firm.

The third sub-sample examines the performance of targets in completed bids and targets in lapsed bids. Completed bids are those that are acquired within twelve months of the date of announcement. Takeover literature suggests that targets of a takeover bid
under perform prior to a takeover bid. Completed bids are perceived to be disciplinary if corporate control changes following the completion of a takeover bid. All bids not concluded within twelve months of the date of announcement are lapsed bids.

Table 3.1 is a list of take over bids that make the final data set for evaluating share price and operating performance. The total number of bids for the period 1990 to 1997 is 738. Some bids have been excluded from the final data set due to not meeting the conditions specified above. The final data set is composed of 153 take over bids, classified into completed, lapsed, friendly, hostile, disciplinary and non disciplinary bids. The amount involved in the 153 takeover bids is huge. The total value is £39.7 billion.
Table 3.1 Classification of takeover bids

<table>
<thead>
<tr>
<th>Period</th>
<th>All bids</th>
<th>Completed</th>
<th>Lapsed</th>
<th>Top Management Change</th>
<th>No Top Management Change</th>
<th>Friendly</th>
<th>Hostile</th>
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<td>4</td>
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<td>9</td>
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<td>63</td>
<td>14</td>
</tr>
<tr>
<td>1995</td>
<td>104</td>
<td>88</td>
<td>15</td>
<td>11</td>
<td>92</td>
<td>85</td>
<td>18</td>
</tr>
<tr>
<td>1996</td>
<td>95</td>
<td>81</td>
<td>14</td>
<td>9</td>
<td>86</td>
<td>74</td>
<td>21</td>
</tr>
<tr>
<td>1997</td>
<td>134</td>
<td>119</td>
<td>15</td>
<td>30</td>
<td>104</td>
<td>122</td>
<td>12</td>
</tr>
<tr>
<td>Total</td>
<td>738</td>
<td>650</td>
<td>88</td>
<td>98</td>
<td>640</td>
<td>617</td>
<td>121</td>
</tr>
<tr>
<td>Less other bids</td>
<td>585</td>
<td>516</td>
<td>69</td>
<td>54</td>
<td>531</td>
<td>496</td>
<td>89</td>
</tr>
<tr>
<td>Final data set</td>
<td>153</td>
<td>134</td>
<td>19</td>
<td>44</td>
<td>109</td>
<td>121</td>
<td>32</td>
</tr>
</tbody>
</table>

Since a takeover bid is perceived to be a court of last resort, that is an aid where internal controls are weak or are failing, the publication of the Cadbury Report in 1992 was seen as a move towards strengthening corporate governance for UK companies. Table 3.2 shows the frequency distribution of the 738 takeover bids in the pre Cadbury Report and post Cadbury Report periods. There were more takeover bids after the publication of the Cadbury Report (409 bids) than before (329), based on the cutoff period of 1993 when the Cadbury Report was prescriptive for all UK listed companies. The increase in number of bids can be attributed to more awareness to use the market for
corporate control by firms and may also suggest that weakness in internal control and indecisive board controls are still very weak.

Table 3.2 Frequency Distribution of Takeover Bids Relative to the Cadbury Report

<table>
<thead>
<tr>
<th>Period</th>
<th>All bids</th>
<th>Completed</th>
<th>Lapsed</th>
<th>Top Management Change</th>
<th>No Top Management Change</th>
<th>Friendly</th>
<th>Hostile</th>
</tr>
</thead>
<tbody>
<tr>
<td>1990</td>
<td>105</td>
<td>99</td>
<td>6</td>
<td>15</td>
<td>90</td>
<td>84</td>
<td>21</td>
</tr>
<tr>
<td>1991</td>
<td>104</td>
<td>89</td>
<td>15</td>
<td>9</td>
<td>95</td>
<td>87</td>
<td>17</td>
</tr>
<tr>
<td>1992</td>
<td>58</td>
<td>52</td>
<td>6</td>
<td>4</td>
<td>54</td>
<td>51</td>
<td>7</td>
</tr>
<tr>
<td>1993</td>
<td>62</td>
<td>51</td>
<td>11</td>
<td>11</td>
<td>51</td>
<td>51</td>
<td>11</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Pre Cadbury Report</th>
<th>All bids</th>
<th>Completed</th>
<th>Lapsed</th>
<th>Top Management Change</th>
<th>No Top Management Change</th>
<th>Friendly</th>
<th>Hostile</th>
</tr>
</thead>
<tbody>
<tr>
<td>1994</td>
<td>77</td>
<td>71</td>
<td>6</td>
<td>9</td>
<td>68</td>
<td>63</td>
<td>14</td>
</tr>
<tr>
<td>1995</td>
<td>103</td>
<td>88</td>
<td>15</td>
<td>11</td>
<td>92</td>
<td>85</td>
<td>18</td>
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<tr>
<td>1996</td>
<td>95</td>
<td>81</td>
<td>14</td>
<td>9</td>
<td>86</td>
<td>74</td>
<td>21</td>
</tr>
<tr>
<td>1997</td>
<td>134</td>
<td>119</td>
<td>15</td>
<td>30</td>
<td>104</td>
<td>122</td>
<td>12</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Post Cadbury Report</th>
<th>All bids</th>
<th>Completed</th>
<th>Lapsed</th>
<th>Top Management Change</th>
<th>No Top Management Change</th>
<th>Friendly</th>
<th>Hostile</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>409</td>
<td>359</td>
<td>50</td>
<td>59</td>
<td>350</td>
<td>344</td>
<td>65</td>
</tr>
</tbody>
</table>
3.3 EVENT STUDY METHODOLOGY

Share price performance examined using the event study approach in takeovers (Halpern, 1983). The stock price reaction to the announcement of takeovers is examined using the standard event study methodology of Brown and Warner (1980) to compute monthly excess returns. Average monthly returns are computed using a two-step procedure and stock price data from London Business School Database (LBSD). The market portfolio proxy is the Financial Times All share Index.

The parameters of a single factor market model for each firm are estimated using the returns for the months –72 to –13 to estimate each firm’s alpha and beta coefficient. The monthly returns are computed for the period –1 month to + 1 month where month 0 is the announcement month of the takeover. The Secondly, the excess return are computed by subtracting a firm’s expected monthly return from its actual return. Cumulative abnormal returns are calculated by summing the abnormal returns over the period – 1 month to + 1 month.

Thirdly, the relationship between the stock price reaction and firm variables is examined using cross sectional regressions. Cumulative abnormal returns are regressed against the method of payment, firm size and free cash flow. The method of payment variable is a dummy variable that equals 1 if the bidder offers cash to acquire stock or 0 otherwise. Travlos (1987) finds stock price reactions of bidding firms to the announcement of a takeover related to the method of payment. The reaction is more for an acquisition paid with stock as it signals that the bidder is over valued. Loughran and Vijh (1997) finds that firms that pay for a merger with stock have significantly poor returns during the five years following the acquisition, while firms that make purchases
with cash have positive excess returns. It is expected that a positive coefficient should be found for this variable.

This study adopts the Fama, et al., (1969) event study methodology to calculate cumulative abnormal returns for the 24-month period around the date of announcement. The abnormal returns are estimated using the market model, and market-adjusted model, where the benchmark return is the return on the Financial Times All Share Index. The t-statistics are estimated using the cross-sectional variation of abnormal returns.

The procedure starts with estimating the parameters of a single factor market model for each firm. The returns used to estimate each firm’s alpha and beta coefficient are from month –72 to month –13. The monthly returns are computed for the period –12 to +12, where month 0 is the announcement of the takeover. Secondly, the abnormal return is computed by subtracting the firm’s expected monthly return from its actual return. Cumulative abnormal returns are calculated by summing the abnormal returns over the period month –12 through months +12.

The relationship between the stock price reaction and firm variables is then examined using cross sectional regressions. Cumulative abnormal returns are observed in each of the following pre bid firm characteristics, mood of bid, bid outcome and top management change. A hostile bid is represented by a dummy variable of 1 and 0 otherwise. The change in the position of CEO represented by a dummy variable of 1 and 0 if there is no change in the position of CEO. A dummy variable 1 represents a completed bid while 0 represents a failed bid.
The abnormal return, AR\text{it}, for firm \text{i}, and in the period, \text{t}, is the actual ex-post return of the security over the event window minus the expected return of the firm over the event window. For the firm, \text{i}, and the event period, \text{t} the abnormal return is:

\[ AR\text{it} = Rit - E (Rit) \]  

(3.1)

Where,

\[ AR\text{it} = \text{abnormal return} \]

\[ Rit = \text{actual return} \]

\[ E (Rit) = \text{expected return respectively for time period} \ t. \]

Actual return = \( (Pt + Dt-Pt-1/Pt-1) \times 100\% \)

Where

\[ Pt = \text{security price in month} \ t \]

\[ Dt = \text{dividends in month} \ t \]

\( Rit \) is the actual return measured during the event period and \( E (Rit) \) is the benchmark return expected in the absence of that event. In order to measure \( R \) share prices changes and dividends paid are calculated in the event period. Due to the influence of market wide events on the returns of securities, various models may predict the normal return. These models are assumed to provide unbiased predictor of the expected return. The expected return is adjusted by using the market return, which, for UK firms, is calculated from the Financial Times All Share Index (Dimson and Marsh, 1986) The Financial Times All Share index is a value weighted index. The model for generating expected returns therefore follows the equation:

\[ E (Rit) = \alpha \text{i} + \beta^{*rmi} \]  

(3.2)
Where

\[ \alpha_i \] = constant of security, \( i \) estimated from the pre-event measurement period

\[ \beta_i \] = beta of security, \( i \) estimated from the pre-event measurement period

\[ Rmt \] = total return of market from the Financial Times All Share Index, in period \( t \)

3.4 MODELS FOR GENERATING NORMAL RETURNS

A security’s price performance can only be considered abnormal when it is compared with a particular benchmark. The normal return on a share is that expected return on that share, which we would derive if the economic event under study did not take place. After comparing the actual return during the event period with the expected ‘normal’ return, there will abnormal performance if the actual share price is greater or smaller than the expected return. There are various models for generating normal returns. For each model, the abnormal return for a given security in any time period \( t \) is defined as the difference between its actual ex post return and that which is predicted under the assumed return-generating process (Brown and Warner, 1980).

3.4.1 THE MARKET MODEL

The most widely used methodology to generate normal returns is the market model. The market model is a statistical model, which relates the return of any given security to the return of the market portfolio. The market model measures the relationship between a security’s return and the return on the market. This model estimates the
relationship between a share’s returns and the returns on the market by ordinary least squares (OLS) regression and use this relationship to estimate expected returns, given returns on the market (Armitage, 1995; MacKinlay, 1997). Fama, Fisher, Jensen and Roll (1969) introduced this model and the equation for the market model is:

\[
R_{it} = \alpha_i + \beta_i * R_{mt} + \varepsilon_{it} \tag{3.3}
\]

Where

- \( R_{it} \) = total return of security \( i \) in period \( t \)
- \( \alpha_i \) = constant of security, \( i \) estimated from the pre-event measurement period
- \( \beta_i \) = beta of security \( i \), estimated from the pre-event measurement period
- \( R_{mt} \) = total return of market in period \( t \)
- \( \varepsilon_{it} \) = the error term with the expected mean of zero.

\( R_{it} \) is the actual return during \( t \) (a day or month) on company \( i \)'s share and \( R_{mt} \) is the share market index such as the UK’s Financial Times All-share Index, the American S & P Index as a proxy for the market. (Rahman, 2000) reports that the model argues that the return on a firm is linearly related to the returns on the market portfolio, where \( \alpha \) and \( \beta \) are assumed constant over time.

After calculating the estimates of \( \alpha \) and \( \beta \), with data from the appropriate estimation period (Kothari and Warner, 1997) the expected return is given by inserting the estimated values of \( \alpha_i \) and \( \beta_i \), together with the actual return on the market. The abnormal return is derived from the following equation:

\[
AR_{it} = R_{it} - (\alpha_i + \beta_i * R_{mt}) \tag{3.4}
\]
The abnormal return will be positive if the takeover event is expected to create additional value for the shareholders. The abnormal return will be zero if the acquisition in neutral. Where the abnormal return is negative, it implies that the takeover does not create additional value for shareholders. If the takeover does not achieve the desired effect, to improve corporate performance, acquiring firm shareholders do not benefit from the takeover. The money paid to another firm could as well have been distributed to shareholders of the acquiring firm. Such takeovers that do not realize positive abnormal returns are carried out to benefit acquiring managers. The following logarithm transformation model was used by Fama et al., (1969) to determine when new information is anticipated by the share market and reflected on average in the prices of shares:

\[
\text{Loge} \, \text{Rit} = \alpha_i + \beta_i \text{loge} \, \text{Rmt} + \varepsilon_{it} \tag{3.5}
\]

The log of the market index relative (loge Rmt) is the rate of return on a portfolio of all securities in the market, and the log of the security price relative (Loge Rit) is the rate of return on an individual security.

3.4.2 THE MARKET ADJUSTED RETURN MODEL (INDEX MODEL)

The market adjusted return model is a variation of the market model whereby \( \alpha = 0 \) and \( \beta = 1 \). Under the market adjusted return model the expected return for firm j is not adjusted for risk. The market adjusted return model, also known as the zero-one model, assumes that over any period \( t \), the asset, will earn the market rate of return, \( Rmt \) (Armitage 1995). The equation for the market adjusted return model is:

\[
\text{Rit} = \text{Rmt} \tag{3.6}
\]
Following equation (5) the abnormal return $AR_{it}$, is the actual return, $R_{it}$ less $R_{mt}$.

$$AR_{it} = R_{it} - (0 + 1 \times (R_{mt})$$  \hspace{1cm} (3.7)

3.4.3 THE CONSTANT MEAN RETURN MODEL

The constant mean return model, assumes that the ex ante expected return for a given security, $i$, is equal to a constant $R_i$ which can differ across securities (Brown and Warner, 1980). In this case, the predicted ex post return on security, $i$, in time period $t$ is equal to $R_i$.

$$R_{it} = R_i$$  \hspace{1cm} (3.8)

The abnormal return $\varepsilon_{it}$ is equal to the difference between the observed return, $R_{it}$, and the expected predicted return $R_i$:

$$\varepsilon_{it} = R_{it} - R_i$$  \hspace{1cm} (3.9)

Where

$R_{it}$ is the return in period $t$ return on security $i$

$\varepsilon_{it}$ is the error term or abnormal return.

3.4.4 CAPITAL ASSET PRICING MODEL AND THE ARBITRAGE PRICING MODEL

Event studies have also used economic models to compute the abnormal return. Two common economic models used in finance are the Capital Asset Pricing Model (Sharpe, 1964) and the Arbitrage pricing Theory (Ross, 1976)

The capital asset pricing model predicts the relationship between risk and returns and therefore provides a benchmark rate of return for evaluating investments. Financial theory posit that investors will hold risky assets if the rate of return of those assets is
greater than the return on the market portfolio. The market portfolio is the value of all the risky assets of an economy.

The capital asset pricing model is an equilibrium theory where the expected return of a given asset is determined by its covariance with the market portfolio. The capital asset pricing model provides a measure of the risk of an individual security. The emphasis of the capital asset pricing model is that the intercept is the risk free rate, or the rate of return on the minimum variance zero-beta portfolio, which changes over time. This model is stated as:

\[ R_i = R_f + \beta_i (R_m - R_f) \] (3.10)

Where
\[ R_i \] is the expected or ex ante return on the risky asset
\[ R_f \] is the rate of return on a risk-free asset
\[ R_m \] is the expected return on the market portfolio
\[ \beta \] is the systematic risk of the individual asset

The use of the capital asset pricing model has produced some deviations due to the restrictions it places on the market model and this has introduced the possibility that the results of these studies may be sensitive to the specific capital asset pricing model restrictions (Fama and French, 1995). The use of CAPM in measuring the normal returns in the 1970s is deemed to produce largely biased results and as such, it has ceased to be used as a measure determining normal returns.

Another economic theory similar to CAPM is the arbitrage pricing theory. The arbitrage pricing theory holds that the expected return of a financial asset can be modeled as a linear function of various macroeconomic factors, where sensitivity to changes in
each factor is represented by a factor specific beta coefficient (Ross, 1976). The rate derived from the model is then used to price the asset correctly such that the asset price should equal the expected price discounted at the rate implied by the model. If the price diverges, arbitrage should bring it back into line. The arbitrage-pricing model is stated as follows:

\[
E (r_i) = r_f + \beta_i \ 1 \ RP_1 + \beta_i \ 2 \ RP_2 + ... + \beta_i \ n \ RP_n
\]  

(3.11)

\[
R_i = E (r_i) + \beta_i \ 1 \ F_1 + \beta_i \ 2 \ F_2 + ... + \beta_i \ n \ F_n + \epsilon_i
\]  

(3.12)

Where

- \(E (r_i)\) is the expected or ex ante return on the risky asset
- \(RP_k\) is the risk premium of the factor
- \(F_k\) is the macroeconomic factor
- \(R_f\) is the rate of return on a risk-free asset
- \(\epsilon_i\) is the abnormal return with mean zero
- \(\beta_{ik}\) is the sensitivity of the asset to factor \(k\)

There are other models used to measure share price performance that include adjustments for specific characteristics such as industry and size variables (Franks, et. al., 1977, 1991, Agrawal et al., 1992, Kennedy and Limmack, 1996 and Gregory, 1997). Franks et al., (1977) included and industry variable to the right side of the market model in their study of firms in the breweries and distilleries sector in order to control for specific industry effect. The model is written as follows:

\[
\log_e R_{it} = \alpha_i + \beta_i \log_e R_{mt} + \gamma \log_e R_{it} \epsilon_{it}
\]  

(3.13)
3.5 ABNORMAL PERFORMANCE

For each security, the event month, \( t = 0 \), is the month in which the takeover announcement was made public. The estimation period for generating normal returns is from \(-72\) months, to, \(-13\) months. The event period is from \(-12\) months through to \(+12\) months. Abnormal returns are computed using equation 4.1 and the average abnormal returns for each firm for each month are aggregated during the test period as follows:

\[
AR_{it} = \frac{1}{n} \sum AR_{it} \quad (3.14)
\]

Where,

\( n \) is the number of firms reporting returns

Firms trading in the same period form an equally weighted portfolio, and this portfolio is treated as a single observation. The average abnormal returns accumulate over time to yield a cumulative average abnormal return over the test period:

\[
CAAR = \sum AR_{t} \quad (3.15)
\]

Where \( CAAR \) is the summation of average abnormal returns in the period \(-12\) to \(+12\) months around the takeover bid

3.6 STATISTICAL TESTING

Abnormal returns are initially calculated on a security-by-security basis and then aggregated. The announcement dates for the various firms differ in calendar time but they all occur at event time \( t, = 0, \) in this study. The abnormal returns for all securities for the time period \( t \) are aggregated, and the calculation of the average abnormal returns over all securities for that one period during the control period is as follows:
The average abnormal return over all N securities for the control period is computed as follows:

$$AAR = \frac{1}{N} \sum_{i=1}^{N} A_i$$  \hspace{1cm} (3.16)

The average abnormal return over all N securities during the control period provides us with the benchmark of the average abnormal return over all N securities for the whole period and the test period in particular. This benchmark forms our estimate of what is expected, on average, if no new information is forthcoming to cause stock prices, and stock returns, to increase or decrease materially from their normal level. We compare this benchmark with the actual returns in the test period from –12, through to +12 months to determine if the takeover announcement is associated with higher or lower returns than expected.

The abnormal returns are significant if they differ from what would be expected by chance and to see if they are, we must determine the standard deviation about the abnormal returns in the control period:

$$\text{(AARt)} = \sqrt{\frac{1}{n-s-1} \sum_{t-n}^{t-s} (AAR_t - \overline{AAR})^2}$$  \hspace{1cm} (3.18)

Where the abnormal return for the control period is determined using equation 4.10 and the average abnormal returns over the control period are given by equation 3.11. Testing
for significance for each average abnormal return in the test period we take the average
abnormal return and divide it by the standard deviation determined in equation 3.13:

Test statistic in the event period (using the Student’s t statistic):

\[
t-\text{stat} = \frac{t}{S(AAR_t)}
\]  
(3.19)

The average test statistic for the cumulative abnormal returns in the event period is given
by:

\[
t-\text{stat} = \frac{AR}{S(AAR_t)\sqrt{n}}
\]  
(3.20)

Where \( n \) is the number of months in the test period

3.7 PITFALLS OF CUMULATIVE ABNORMAL RETURN METHOD

When evaluating share price performance for mergers and acquisitions, it is
important to distinguish the performance of companies involved in takeover activity and
those that are not. This is done to capture the effects of the takeover. In order to isolate
the effect of the takeover on the performance of all companies, there is need to identify a
suitable control. There are two notable methods to address this predicament. One method
is to adopt a control firm so that every firm that has undergone a takeover, either as a
target of acquirer, we would have assigned to it a similar firm that has not undergone a
takeover (Dodd and Officer, 1980). However, finding a firm of similar size and similar
other characteristics, is an un-surmountable problem. Dodd and Officer (1980, p. 361)
suggest that

‘A matching control is hazardous because of the difficulty in finding a correct matching
firm, viz., the firm that could and should have grown by takeover but did not, but was
identical to the firm involved in the takeover in all other respects’.
As a result, they recommend an alternative approach, which is, to form separate portfolios of bidding firms and target firms and then the performance of the portfolio that incorporates the market for all equities. In this study, the performance of firms involved in takeovers compared to the return on the market portfolio.

Share price performance studies suffer from the lack of consensus on the most appropriate benchmark control and this makes it difficult to compare results across studies. Other problems arise from bias in what makes up the appropriate sample, and the aggregation of non-normal returns (Barber and Lyon, 1997 and Kothari and Warner, 1997).

Another problem with market studies is the lack of consistency as to how wide the event window should be. The date from which to measure the effect of the acquisition on shareholder returns varies from study to study. Jensen and Ruback (1983), report that measurement should relate to the timing of the acquisition news. The relevant information about an acquisition takes time to become public information, thereby making it difficult to measure the full impact of the acquisition. An efficient market is assumed to adjust fully to the new information when an event occurs such as date of announcement. Unfortunately, news about acquisitions does not take the market by surprise because of its propensity to leaking before the official date of announcement. As a result, the wealth effects of the acquisition will be reflected in the share prices of the bidding and target firms around the announcement if the investors do not anticipate the event prior to the announcement date. Different studies therefore measure share price performance on different dates, some measure the effect of takeovers from the date of announcement (Dodd and Ruback, 1977, Schipper and Thompson, 1983, Malatesta, 1983.
and Malatesta et al., 1988) while other studies measure the effect from the date of completion (Langetieg (1978). Other studies (Asquith, 1983) examine wealth changes from the date of announcement to the date the bid is concluded. On the other hand, Ruback (1988) argues that the analysis of security returns over longer periods after completion is indicative of a lack of confidence in the efficiency of the market reaction around the time of a takeover bid.

3.8 OPERATING PERFORMANCE

Prior to the advent of market-based studies of evaluating corporate performance, the stewardship of managers was evaluated by examining accounting results, notably the operating performance of companies prior to and post takeover (Chatterjee and Meeks, 1996). This study evaluates the impact of takeovers by examining the profitability of bidders and targets in the period prior to and after the takeover bid.

Barber and Lyon (1996) suggests that the study design for operating performance should follow an event study approach and follow methods similar to Brown and Warner (1985). This design involves three steps. Firstly, an appropriate measure of operating performance should be adopted. Secondly, an expected operating performance model should be developed. The expected operating performance might be matching performance against control firms based on industry or size and industry, or based on the firms’ unadjusted past performance (Morck, Shleifer and Vishny 1988). Thirdly, the analysis is finalized by evaluating abnormal performance using parametric and non-parametric test statistics.
3.8.1 PROFITABILITY

Accounting performance measures the effect of mergers and acquisitions by examining the operating performance of combined firms before and after the takeover bid. Operating performance focuses profitability (See Meeks, 1977; Ravenscraft and Scherer, 1987; Singh, 1971, 1975; and Chatterjee, 1994). Profitability is defined as operating cash flow or, net income before interest and tax (EBIT). This net income profit is scaled by scaled by sales, or by market value or by total assets (Healy et al., 1992; Clark and Ofek, 1994).

In order to examine whether there are improvements in the operating performance of companies involved in takeovers, in this study net income is scaled by the book value of total assets. Total assets are defined as the book value of shareholders funds and total debt less cash and marketable securities. Operating performance measures how well managers have used the assets of a business in order to create more wealth reflected by improvement in profitability. Managers exert control over operating and non-operating assets but excluding non-operating assets raises the question as to whether non-operating assets have no use in the operations of a firm. If they do not contribute anything, the question would be why they are maintained by the firm and not disposed of. While the classification of operating from non-operating assets may give different ratios of operating performance, the book value of shareholders funds and total debt, which represents fixed and current assets used in the creation of more wealth does not distinguish between operating and non-operating assets.

Accounting performance for mergers and acquisitions in this study is determined by the following equation:
\[ E \text{ OP (post)} = OP \text{ (B pre)} + OP \text{ (T pre)} \] 

(3.21)

Where,

- \( E \text{ OP (post)} \) is the expected post bid performance of the combined firms
- \( OP \text{ (B pre)} \) is the pre acquisition performance of the bidder
- \( OP \text{ (T pre)} \) is the pre acquisition performance of the target

3.8.2 ALTERNATIVE DEFLATORS FOR MEASURING PROFITABILITY (TOTAL REVENUE AND MARKET VALUE OF ASSETS)

Previous studies have been critical of deflating operating performance with the book value of total assets because of number reasons such as questioning the use of depreciation in arriving at accounting profit and the weakness of the historical cost convention (Appleyard, 1980). Depreciation is viewed by others as an arbitrary figure, which is computed at different rates by different firms. Some compute depreciation using different rates as well as straight-line method or reducing balance method. The objective of using transactions recorded at historical costs may suggest that accounting information is stale. In order to address these and other similar questions, Ghosh (2001) uses sales as an alternative deflator. The advantage of using sales is that it is a current measure where both the numerator and denominator of the return metric come from the same profit and loss account (Barber and Lyon, 1996; Powell and Stark, 2005). This study therefore measures operating performance by deflating earnings by revenue as an alternative to the total assets evaluation above.

In order to address measurement problems associated with the book value of total assets since they are recorded at historical cost, the market value of the firms’ assets is
used as an alternative deflator such that operating performance is defined as earnings before interest scaled by the market value of total assets. Proponents of this measure suggest that book values should not be used as a deflator to earnings because earnings reflect current values whereas total assets reflect book values. Powell and Stark (2005) measure operating performance as earnings before interest and tax scaled by market value of total assets as another alternative to scaling by book value of assets. Critics of this measure suggest that market values are arbitrary, are subject to speculation, prone to error because they depend on whether the market is efficient.

The main measure of operating performance used in this study is earnings before interest and tax scaled by the book value of total assets. Earnings before interest and tax is defined as gross profit less selling and administration expenses but before deducting interest, depreciation and tax. This measure is similar to operating income before depreciation variable, which is used in the operating cash flow computation. The book value of total assets is the total value of assets derived from the company’s balance sheet. Interest, taxes and special items are excluded from the operating income because they can obscure operating performance. Secondly, operating income that excludes non-operating expenses represent economic benefits generated by the firm and as a pre-tax measure it is unaffected by changes in capital structure.

Operating performance can be determined by industry or firm specific factors such as size and past profitability (Barber and Lyon, 1996). Most studies measure the effect of takeovers on performance by comparing the performance of bidding and target firms with control firms which neither made, nor received, a takeover offer for a public company during the three years before and after the acquisition and that had accounting data on
DataStream over this period. In this study we focus on the disciplinary effect of takeovers and hence, we compare the performance of sub-samples of firms involved in takeover bids but having a disciplinary effect with those firms that are not subject to a disciplinary bid. To be precise we compare pre and post takeover performance of firms in hostile and friendly bids, completed and lapsed bids, and, bids where there are or no top management changes after a takeover bid.

3.9 DISTINGUISHING OPERATING CASH FLOW FROM EARNINGS

A number of studies that evaluate corporate performance in mergers and acquisitions using accounting data choose operating cash flow over earnings as a measure of profitability. There are a number of reasons whereby operating cash flows are perceived to supersede earnings as a measure of profitability (Lawson, 1985). Barber and Lyon (1996) report that operating cash flow is a cleaner measure because while earnings include interest expenses, special items and taxes which can obscure operating performance, operating cash flow represent economic benefits generated by the firm’s assets. The distinction between earnings and operating cash flow is that operating cash flow excludes non-cash transactions such as depreciation in the profit measure. Proponents of operating cash flows as a measure of profitability suggest that cash accounting provide reliable accounting information because profit is the net of actual inflows and outflows of cash. On the other hand, proponents of earnings as a measure of profitability argue that accounting information is derived from using accounting conventions, which assist in reporting the performance of firms. Profitability, defined as earnings before interest and tax is the measure used in this study to examine the impact of takeover bids.
Healy et al (1992) and Ghosh (2001) deflate operating profit by total market value, which is calculated as the sum of the market value of equity plus the book value of debt plus the book value of the preferred stock prior to and after the takeover. Total market value is used to take into account that it accurately reflects the productivity of the firm’s assets in generating economic benefits. While a market-based value is not affected by accounting policies market value is forward looking measure and as such, reflects not only the assets in place but also all assets the firm is expected to acquire (Healy, et. al., 1992; Barber and Lyon, 1996; Powell and Stark, 2005). In efficient markets, abnormal returns represent the capitalized value of any post takeover performance improvements. This relies on the assumption of efficient markets to properly assess the gains arising from the takeover. The use of book value of assets is one way to overcome the above problem. Since the matter of interest in the pre-takeover operating performance of targets in disciplinary bids, in this study, operating profit is deflated by book value of assets and by total sales (Ghosh, 2001). The operating income deflated by total assets helps to control for differences in size across firms and for changes in asset base within the firms across the years.

There are several other ways of measuring operating performance in accounting studies (Higson, 1990; Higson and Elliot, 1998). Some of the measures include deflating debt by total assets, total sales scaled by total assets as well comparing the book value of assets and its market value. Other studies deflate operating profit by operating assets or by equity (return on assets, return on equity). Another measure of analyzing operating performance is comparing the current ratio, defined as current assets scaled by current liabilities of one firm and that of another firm, or comparison for the same firm but in
different accounting periods. This ratio measures how well a firm is able to meet its current obligations. While these ratios may explain more about the characteristics of the firm, profitability ratio is undoubtedly the most common measure that is used by most firms to report accounting performance and upon which various stakeholders place reliance.

3.10 ALTERNATIVE BENCHMARK RETURNS

3.10.1 INDUSTRY ADJUSTED OPERATING PERFORMANCE MODEL

The pre bid operating performance benchmark is described in literature as unsatisfactory for a number or reasons. First, it fails to control for intervening macroeconomic developments and introduces potentially significant measurement error (Jarrell 1995; Barber and Lyon 1996). Secondly, the level of pre acquisition operating performance might be higher and company performance might be a function of firm size.

The second approach employs the post acquisition performance of the combined firm’s industry as the performance benchmark, which provides that if the acquisition has no effect; the combined would perform as the non-combined firms in the same industry (Healy et al., 1992). The industry-adjusted benchmark is the mean (or median) operating performance of all firms with the same data stream industry code, which is then subtracted from the sample firm’s operating performance to obtain the abnormal performance. The model is stated as follows:

\[ E \ OP \ (post) = OP \ (I) \ post \]  \hspace{1cm} (3.22)

Where

\( EOP \ (Post) \) post is the expected performance of combined firms after the takeover bid, 

\( OP \ (I) \ post \) is the mean (median) operating performance of the industry portfolio.
The industry adjusted operating performance median of other firms is the benchmark used for matching with the operating performance of firm involved in takeovers. Barber and Lyon (1996, p. 366) recommends that the comparison between changes in performance should provide that a firm’s expected performance is equal to its past performance plus the change in the industry’s performance. Barber and Lyon (1996) argue that the industry adjusted operating performance measure is a weak measure for comparison because it ignores the history of the firm relative to the benchmark and suggests that the pre acquisition characteristics of the firms ought to be factored in the equation as follows:

\[ E(P_{it}) = P_{i, t - 1} + (P_{it} - P_{i, t - 1}) \]  (3.23)

Where

\( (P_{it} - P_{i, t - 1}) \) is the pre event industry benchmark.

\( E(P_{it}) \) is the expected operating performance

3.10.2 INDUSTRY AND SIZE ADJUSTED OPERATING PERFORMANCE MODEL

The industry adjusted operating performance fails to control for size of firms prior to and after the takeover bid. The third approach recommends that operating performance should be adjusted by the performance of a control portfolio of non-acquiring firms matched by size and industry (Barber and Lyon 1996; Ghosh 1998). Ghosh (1998) suggests that larger firms are more profitable than smaller firms are such that comparison based on industry alone would not be correct. Size has an impact on corporate performance (Meeks 1977; Ravenscraft and Scherer 1987 and Jarrell 1995). Jarrell measured size as the market value of the firm’s debt plus equity as reported by the value line investment report during the quarter before the takeover bid. Meeks (1977) and
Ravenscraft and Scherer (1987), both report that acquisitions involving companies of similar size have a larger impact on the operating performance of combined firms than acquisitions involving companies of different size. Control firms used in this study are those that have neither made nor received a takeover bid matched by industry and size. In this study, size is based on the book value of assets rather than market values or sales because market values may fluctuate as a result of changes in the market sector as well as macroeconomic conditions while sales may be affected by the state of the economy or company performance at a particular point in time. The industry and size adjusted operating performance model is stated as follows:

\[
ISAOP_{post} = ISAOP_{Pre (B)} + ISAOP_{Pre (T)}
\]

Where

ISAOP post is the mean (median) industry and size adjusted operating performance 3 years after the bid,

ISAOP Pre (B) and ISAOP (T) represent pre acquisition pre bid operating performance.

Size is the book value of total assets, defined as the book value of equity plus reserves plus long term debt and short term less cash and market securities measured one year prior to a takeover bid. Asset size of the bidder and target firms is computed as follows:

\[
Pre \ EBIT/Total \ Assets = (EBIT \ (B)/Total \ Assets \ (B)) + (EBIT \ (T) \ /Total \ Assets \ (T))
\]

Where,

\( Pre \ EBIT/Total \ Assets \) it is the operating performance in the pre acquisition period

\( EBIT \) is operating profit

\( Total \ Assets \) refer to shareholders funds plus debt less cash and marketable securities
The pre-acquisition measure of performance, earnings before interest and tax is deflated by total assets, is computed for the period 3 years prior to the takeover bid and the operating performance in year 0 is omitted to control for any one-time costs incurred during the acquisition.

There are two reasons advanced in takeover literature for matching operating performance. The first reason is that matching the firms’ controls for potential mean reversion in earnings, and other operating ratios (Fama and French 1995). Secondly, tests using control firms that are not matched on operating performance are mis-specified if the event firms have either especially good or especially poor prior operating performance (Barber and Lyon 1996). To test for statistical significance of the levels and changes in operating performance, Wilcoxon signed-rank tests and parametric t-tests are conducted. Barber and Lyon (1996) infer that due to extreme observations in the distribution of operating performance, non-parametric Wilcoxon signed rank tests are uniformly more powerful than parametric t-tests. In this study, both tests are conducted for completeness.

3.11 ABNORMAL PERFORMANCE

The abnormal return (profitability) is the difference between the pre-acquisition combined operating performance of the bidder and target firm and the post-acquisition performance of the bidding firm for all sub-samples described above. We examine the pre-takeover operating performance of targets in the sub-samples according to the classification made in chapter 2 to test whether there is a difference in the performance of firms in involved in disciplinary and non-disciplinary bids.
This study also employs the regression-based approach to estimate for any improvements in post-takeover performance to be consistent with previous studies (Manson, et. al., 2000; and Powell and Stark, 2005). The post-takeover abnormal profit for each acquisition is regressed on an equivalent pre-takeover abnormal profit as follows:

\[
ROA_{post} = \alpha + \beta ROA_{pre} + \varepsilon
\]

(3.26)

Where

\(ROA_{pre}\) is the mean (or median) operating performance rate for 3 years prior to a takeover bid and \(ROA_{post}\) is the mean (or median) operating performance rate for 3 years after the takeover bid.

The coefficient \(\beta\) allows for mean reversion in profitability and the intercept \(\alpha\) is an estimate of the average improvements in performance. The mean amount of pre-takeover performance left unexplained must be attributable to the takeover.

3.12 STATISTICAL TEST.

The abnormal performance AOP derived in the equation (3.26) has a mean of zero for a sample of size \(n\) is the null hypothesis and is tested for statistical significance following the test statistic:

\[
\frac{AOP}{S(AOP) \sqrt{n}}
\]

Where

AOP is the mean abnormal operating performance

\(N\) is the number of years.
3.13 MULTIVARIATE ANALYSIS

In order to examine the relation between changes in performance and pre takeover firm characteristics, a multi-regression analysis is conducted to measure changes in operating performance due to method of payment, bid type, bid outcome and top management change. Dummy variables are included in the equations (hostile bids, lapsed bids and top management change). The pre takeover characteristics and classification which are assumed to have an impact on post acquisition operating performance are assigned a 0 or 1 and multiplied by the independent variable included in the equation above. These variables take the value of zero if the method of payment is cash and one otherwise; friendly bid are assigned the variable of zero or otherwise. The bid outcome is assigned the variable zero if completed and zero otherwise and, top management change following a takeover bid is assigned zero and one otherwise. The equation for computing the abnormal return where specific pre bid characteristics explain the impact of takeovers on post acquisition performance is stated as follows:

\[
IAOP (post i) = \alpha + \beta_1 IAOP \text{pre } i + \beta_2 (\text{bid characteristic}) + \epsilon_i
\]  

(3.27)

Where,

- \(IAOP (post i)\) is the mean (median) annual \(IAOP\) for firm \(i\) from post merger years, and
- \(IAOP (pre i)\) is the mean (median) annual \(IAOP\) for firm \(i\) from pre merger years
- \(\epsilon_i\) is the change in performance after takeover bid
- \(IAOP\) is industry adjusted operating performance

The intercept \(\alpha\) represents the effect of takeovers on operating performance. The slope coefficient \(\beta_1\) captures any correlation in the industry-adjusted operating
performance between pre and post acquisition years while $\beta_2$ captures any correlation between operating performance and pre bid characteristics.

### 3.14 SUMMARY AND CONCLUSIONS

The objective of this chapter was to describe the data, the sources and methodology for analyzing the data. In this study, the effect of takeovers is evaluated using the event study methodology, which examines the share price reaction to the takeover bid based on monthly returns (Casey, Dodd and Dolan, 1987). Monthly returns data are used in this study in order examine the performance of firms prior to the date of announcement of the takeover bids. The ripple effects of a takeover bid are assumed to occur over a wide area and over a long period. The assumption is that daily or weekly returns may not sufficiently measure the impact of takeovers due to the semi efficient state of the UK stock market upon which share prices rely. Due to the stock market semi efficiency short falls, this study also evaluates the long-term effect of takeovers by examining the operating performance of firms involved in takeovers. The shortfalls of market and accounting methodologies are examined with particular emphasis that the Financial Times All Share index provides the best estimate of the market return and that accounting methodology relies on accounting data from financial statements prepared according to accounting standards and verifiable by the auditing profession.

The benchmark for share price study is the market model (Fama et al., 1969) while the benchmark for accounting studies is the industry and size adjusted model (Barber and Lyon 1996). Due to data sources and data constraints actual returns were obtained from the London Stock Exchange Data base, and accounting data was sourced from DataStream. The data for firms involved in takeovers was obtained from various
editions of the Acquisitions Monthly for the period 1990 to 1997 published by the Thomson’s Financial and evidence of management changes was obtained from various editions of London Stock Exchange Year books for the period 1988 though to 1999. Evidence of routine and non-routine management changes in target firms was cross checked with data in the financial press most notably, the Lexis-Nexus website.
CHAPTER 4
ANALYSIS OF CUMULATIVE ABNORMAL RETURNS

4.1 CHAPTER OBJECTIVE

The main objective of this chapter is to report on the performance of companies involved in takeover bids in the period prior to the date of announcement. This chapter presents the results of the pre bid share price of companies involved in takeover bids for the period 1990 to 1997. The second objective of this chapter is to examine several specific pre bid firm characteristics to establish whether they explain improvements to share price performance after the takeover bid.

4.2 INTRODUCTION

Share prices of companies in well-established markets convey information about the market value of a firm. In an efficient stock market investors and financial analysts monitor share prices of listed companies and major decisions are made as to which companies should investments or divestitures made. In mergers and acquisitions falling share prices convey certain information about firms and targets of a takeover bid exhibit falling share prices on the stock market. On the other hand rising share prices convey information about the expected increases in profitability of firms exhibiting rising share prices. Stagnant share price levels convey certain information about firms that have less growth potential.

In this chapter I measure the share price performance of bidders and targets of a takeover bid in the effect of takeovers on the share price of acquiring firms 12 months prior to the takeover announcement and the effect 12 months after the date of announcement. I also report on the effect of disciplinary takeovers on the share price of
target firms prior to the takeover announcement in completed bids and the share price performance in unsuccessful bids. For targets in lapsed bids I examine the effect of disciplinary bids around the date of announcement. I expect to find that the performance of acquiring firms in completed bids to be significantly greater after the takeover announcement than prior to the takeover bid. This improvement is attributed to the expected efficient use of the assets of the acquired firm by the acquiring firm management. I also expect to find significant decline in the performance of firms in lapsed bids due to the failure of a takeover bid. I also examine share price performance in other categories namely, friendly and hostile bids, and changes in top management post takeover.

4.3 PRE BID SHARE PRICE PERFORMANCE

The first test in this study concerns pre acquisition performance. Takeover literature suggests that targets in a takeover bid under perform prior to a takeover bid. This hypothesis therefore implies that bidders exhibit superior pre bid performance when compared to their targets (Jensen 1984). The results of this study are derived from computing the abnormal return where actual return is adjusted based on the market model (Fama et al., 1969). The results are presented in table 4.1 through to 4.14

Table 4.1 shows the pre acquisition share price performance of bidders and targets where the abnormal and the cumulative abnormal returns are computed based on the market model. The abnormal return and the cumulative abnormal return in the event window where t = -13 is -0.62% and 4.98% for bidding firms and -1.75% and -54.35% for target firms. The cumulative average abnormal return around the date of announcement is 2.08% for bidding and 0.16% for target firms. These results suggest that
both bidding and target firms gain at the date of announcement. These gains also suggest both bidders and targets perform poorly in the period prior to a takeover bid. However based on the cumulative abnormal return target firms perform poorly whereas bidding firms’ performance is better than the market anticipates. The magnitude of these gains suggests that target firms perform poorly while bidding firms exhibit superior performance in the same period. These results are consistent with the view that targets of a takeover bid under perform in the period prior to the date of announcement of the bid (Limmack 1991).

Announce period results from further tests on share price performance based on classification of takeover bids are shown in tables 4.2 to 4.7. Bidding firms, on average, earn significant negative abnormal returns around the date of announcement. However bidders earn insignificant positive cumulative abnormal returns around the date of announcement. During the same period target firms earn significant positive abnormal returns but cumulative abnormal returns for bids in failed, top management change, friendly and hostile classification show insignificant negative cumulative abnormal returns. These results are consistent with the findings reported by Jensen (1976) that bidders do not gain from a takeover bid but earn insignificant positive abnormal returns around the date of announcement. The results shown in tables 4.8 to 4.12 are computed using the Market Adjusted Return Model and they indicate similar trend as reported under the Market Model in tables 4.1 to 4.7 that bidders do not generate significant positive abnormal returns while targets earn significant positive abnormal returns and poor cumulative abnormal returns. The share price performance for bids viewed as disciplinary show that targets earn significant positive abnormal returns. Abnormal
returns for bids, which report management change and those, which are hostile show significant positive abnormal returns but insignificant cumulative abnormal returns. This is consistent with the view that disciplinary bids are associated with top management change and hostility (Morck, Shleifer and Vishny, 1990).

4.4 POST BID SHARE PRICE PERFORMANCE

Results in table 4.1 show that bidders perform poorly in the period after the bid. The cumulative abnormal return, -4.54% at t, = 12 worsens to –14.79% 24 months after the date of announcement. However, after classification of takeover bids, bidders exhibit good performance in failed bids where the cumulative abnormal return is 19.54% and 12.43% 12 months and 24 months respectively after the date of announcement. Based on these results, takeovers are value-decreasing events for shareholders of bidding firms. These results are consistent with the view that hostile bids do not imply pre bid poor performance but bidding firm managers recognize potential gains that might be achieved after the takeover Schwert (2000). These results are similar to the findings of Franks and Mayer (1996) who report that some firms are subject to hostile bid for other reasons other than poor pre bid performance.

The share price performance of bidders is also illustrated in figures 4.1 to 4.7. The results suggest that in the period prior to the date of announcement, bidders generate positive gains based on the market adjusted returns. The performance of bidders in completed bids declines from around five months after the date of announcement. However, the gains in takeover that lapse those that are hostile continue to rise after the date of announcement as reflected in figures 4.3 and 4.7 respectively. The trend is similar to the performance for bidders where there is top management change in target after the
bid. These results suggest that bidding firm shareholders benefit from mergers and acquisitions, and this is consistent with the view that bidders do not lose in takeover bids (Baker and Limmack, 1999). Declining share price performance as reflected figures 4.1, 4.2, 4.5 and 4.6 are consistent with the view that gains disappear over time when the operations of the firms revert to normal (Barber and Lyon, 1997). Overall, the performance of bidders in hostile bids is inconsistent with the view that share price performance in hostile bids is not significantly different from share price performance in friendly bids (Cosh and Guest, 2001)
Table 4.1  Share Price Performance: Market Model (MM) Bidders and Targets Prior to classification of takeover bids:

<table>
<thead>
<tr>
<th></th>
<th>Abnormal Return</th>
<th>Cumulative Abnormal Return</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Bidders (n, = 153) t = 0</strong></td>
<td>-0.52 % (0.515)</td>
<td>2.08% (0.572)</td>
</tr>
<tr>
<td><strong>Targets (n, = 153) t = 0</strong></td>
<td>16.12% (0.002)</td>
<td>0.16% (0.000)</td>
</tr>
<tr>
<td><strong>Targets (n, = 153) t = 12</strong></td>
<td>-4.54%</td>
<td>-14.79 %</td>
</tr>
<tr>
<td><strong>Targets (n, = 153) t = 24</strong></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 4.2  Share Price Performance: Market Model (MM) Bidders and Targets: Completed bids

<table>
<thead>
<tr>
<th></th>
<th>Abnormal Return at t, = 0</th>
<th>Cumulative Abnormal Return at t, = 0</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Bidders (n, = 134)</strong></td>
<td>-0.87 % (-0.789)</td>
<td>1.53% (0.3832)</td>
</tr>
<tr>
<td><strong>Targets (n, = 134)</strong></td>
<td>17% (0.002)</td>
<td>3.50% (0.000)</td>
</tr>
</tbody>
</table>
Table 4.3  Share Price Performance: Market Model (MM) Bidders and Targets: Lapsed bids

<table>
<thead>
<tr>
<th></th>
<th>Abnormal Return at t, = 0</th>
<th>Cumulative Abnormal Return at t, = 0</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bidders (n, = 19) t, = 0</td>
<td>2.32 %</td>
<td>7.85%</td>
</tr>
<tr>
<td></td>
<td>(0.775)</td>
<td>(0.728)</td>
</tr>
<tr>
<td>Targets (n, = 19) t, = 0</td>
<td>9.86%</td>
<td>-23.38%</td>
</tr>
<tr>
<td></td>
<td>(0.001)</td>
<td>(-0.001)</td>
</tr>
<tr>
<td>Targets (n =19) t = 12</td>
<td>19.54%</td>
<td>12.43%</td>
</tr>
</tbody>
</table>

Table 4.4  Share Price Performance: Market Model (MM) Bidders and Targets: Top Management Change

<table>
<thead>
<tr>
<th></th>
<th>Abnormal Return at t, = 0</th>
<th>Cumulative Abnormal Return at t, = 0</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bidders (n, = 44)</td>
<td>-0.89%</td>
<td>2.0%</td>
</tr>
<tr>
<td></td>
<td>(-0.570)</td>
<td>(0.343)</td>
</tr>
<tr>
<td>Targets (n, = 44)</td>
<td>19.67 % *</td>
<td>-7.61%</td>
</tr>
<tr>
<td></td>
<td>(7.834)</td>
<td>(-0.8408)</td>
</tr>
</tbody>
</table>
Table 4.5  Share Price Performance: Market Model (MM) Bidders and Targets: No Top Management Change

<table>
<thead>
<tr>
<th></th>
<th>Abnormal Return at $t, = 0$</th>
<th>Cumulative Abnormal Return at $t, = 0$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bidders (n, = 109)</td>
<td>-153.82% (-1.109)</td>
<td>61.60% (0.123)</td>
</tr>
<tr>
<td>Targets (n, = 44)</td>
<td>14.68% * (8.076)</td>
<td>3.29% (0.503)</td>
</tr>
</tbody>
</table>

Table 4.6  Share Price Performance: Market Model (MM) Bidders and Targets: Friendly Bids

<table>
<thead>
<tr>
<th></th>
<th>Abnormal Return at $t, = 0$</th>
<th>Cumulative Abnormal Return at $t, = 0$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bidders (n, = 121)</td>
<td>-0.78% (0.775)</td>
<td>1.15%</td>
</tr>
<tr>
<td>Targets (n, = 121)</td>
<td>14.49% * (11.46)</td>
<td>-2.51% (-0.551)</td>
</tr>
</tbody>
</table>
Table 4.7 Share Price Performance: Market Model (MM) Bidders and Targets: Hostile Bids

<table>
<thead>
<tr>
<th></th>
<th>Abnormal Return at $t, = 0$</th>
<th>Cumulative Abnormal Return at $t, = 0$</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Bidders</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(n, = 32)</td>
<td>0.57%</td>
<td>1.90%</td>
</tr>
<tr>
<td></td>
<td>(0.260)</td>
<td>(0.240)</td>
</tr>
<tr>
<td><strong>Targets</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(n, = 32)</td>
<td>22.29% *</td>
<td>-10.34%</td>
</tr>
<tr>
<td></td>
<td>(7.36)</td>
<td>(-0.937)</td>
</tr>
</tbody>
</table>

Table 4.8 Share Price Performance: Market Adjusted Return Model (MAR) Bidders and Targets Prior to classification of takeover bids:

<table>
<thead>
<tr>
<th></th>
<th>Abnormal Return at $t, = 0$</th>
<th>Cumulative Abnormal Return at $t, = 0$</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Bidders</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(n, = 153)</td>
<td>0.18%</td>
<td>53%</td>
</tr>
<tr>
<td></td>
<td>(-0.1579)</td>
<td>(0.1296)</td>
</tr>
<tr>
<td><strong>Targets</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(n, = 153)</td>
<td>6.78% *</td>
<td>2.88%</td>
</tr>
<tr>
<td></td>
<td>(4.576)</td>
<td>(0.539)</td>
</tr>
</tbody>
</table>
### Table 4.9 Share Price Performance: Market Adjusted Return Model (MAR) Bidders and Targets: Completed bids

<table>
<thead>
<tr>
<th></th>
<th>Abnormal Return at t, = 0</th>
<th>Cumulative Abnormal Return at t, = 0</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Bidders (n, = 134)</strong></td>
<td>-0.02 %</td>
<td>13%</td>
</tr>
<tr>
<td></td>
<td>(-0.016)</td>
<td>(0.278)</td>
</tr>
<tr>
<td><strong>Targets (n, = 134)</strong></td>
<td>6.27%</td>
<td>3.77%</td>
</tr>
<tr>
<td></td>
<td>(0.001)</td>
<td>(0.000)</td>
</tr>
</tbody>
</table>

### Table 4.10 Share Price Performance: Market Adjusted Return Model (MAR) Bidders and Targets: Lapsed bids

<table>
<thead>
<tr>
<th></th>
<th>Abnormal Return at t, = 0</th>
<th>Cumulative Abnormal Return at t, = 0</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Bidders (n, = 19)</strong></td>
<td>2.52 %</td>
<td>7.23%</td>
</tr>
<tr>
<td></td>
<td>(0.808)</td>
<td>(0.665)</td>
</tr>
<tr>
<td><strong>Targets (n, = 19)</strong></td>
<td>10.31%</td>
<td>-3.38%</td>
</tr>
<tr>
<td></td>
<td>(0.001)</td>
<td>(0.000)</td>
</tr>
</tbody>
</table>
### Table 4.11  Share Price Performance: Market Adjusted Model (MAR) Bidders and Targets: Top Management Change

<table>
<thead>
<tr>
<th></th>
<th>Abnormal Return at $t = 0$</th>
<th>Cumulative Abnormal Return at $t = 0$</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Bidders</strong> ($n = 44$)</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Abnormal Return</td>
<td>Cumulative Abnormal Return</td>
</tr>
<tr>
<td></td>
<td>1.56%</td>
<td>5.53%</td>
</tr>
<tr>
<td></td>
<td>(1.108)</td>
<td>(0.998)</td>
</tr>
<tr>
<td><strong>Targets</strong> ($n = 44$)</td>
<td>15.95% *</td>
<td>22.85% *</td>
</tr>
<tr>
<td></td>
<td>(5.978)</td>
<td>(2.375)</td>
</tr>
</tbody>
</table>

### Table 4.12  Share Price Performance: Market Adjusted Model (MAR) Bidders and Targets: No Top Management Change

<table>
<thead>
<tr>
<th></th>
<th>Abnormal Return at $t = 0$</th>
<th>Cumulative Abnormal Return at $t = 0$</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Bidders</strong> ($n = 109$)</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Abnormal Return</td>
<td>Cumulative Abnormal Return</td>
</tr>
<tr>
<td></td>
<td>-0.42%</td>
<td>-1.55%</td>
</tr>
<tr>
<td></td>
<td>(-0.211)</td>
<td>(-0.217)</td>
</tr>
<tr>
<td><strong>Targets</strong> ($n = 109$)</td>
<td>3.07% **</td>
<td>-5.18%</td>
</tr>
<tr>
<td></td>
<td>(1.770)</td>
<td>(-0.829)</td>
</tr>
</tbody>
</table>
Table 4.13  Share Price Performance: Market Adjusted Model (MAR) Bidders and Targets: Friendly Bids

<table>
<thead>
<tr>
<th></th>
<th>Abnormal Return at $t=0$</th>
<th>Cumulative Abnormal Return at $t=0$</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Bidders (n = 121)</strong></td>
<td>0.03% ( (0.0217) )</td>
<td>-0.64% ( (-0.640) )</td>
</tr>
<tr>
<td><strong>Targets (n = 121)</strong></td>
<td>9.53% * ( (5.145) )</td>
<td>10.12%** ( (1.514) )</td>
</tr>
</tbody>
</table>

Table 4.14  Share Price Performance: Market Adjusted Model (MAR) Bidders and Targets: Hostile Bids

<table>
<thead>
<tr>
<th></th>
<th>Abnormal Return at $t=0$</th>
<th>Cumulative Abnormal Return at $t=0$</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Bidders (n = 32)</strong></td>
<td>0.1% ( (0.0404) )</td>
<td>5.99% ( (0.6975) )</td>
</tr>
<tr>
<td><strong>Targets (n = 32)</strong></td>
<td>-3.65% ( (-0.904) )</td>
<td>-24.49%** ( (-1.685) )</td>
</tr>
</tbody>
</table>
Figure 4.1 Share Price Performance of Bidders (Market Adjusted Model)

Figure 4.2 Share Price Performance of Bidders in Completed Bids
Figure 4.3 Share Price Performance of Bidders in Failed Bids

![Share Price Performance of Bidders in Failed (Lapsed) Bids](image)

Figure 4.4 Top Management Change Share Price Performance of Bidders

![Top Management Change Share Price Performance](image)
Figure 4.5 No Top Management Change Share Price Performance of Bidders

Figure 4.6 Share Price Performance of Bidders in Friendly Bids
Figure 4.7 Share Price Performance of Bidders in Hostile Bids

![Bidders in Hostile Bids](image)
4.6 SUMMARY AND CONCLUSIONS

The objective of this study was to examine whether takeovers perform a disciplinary function on poorly performing firms. Evidence in this study suggests that their targets of a takeover bid underperform prior to the bid due to the significant positive abnormal returns earned around the date of announcement. Evidence in this study also suggests that takeovers are disciplinary they lead to improvements in share price performance after the takeover bid. The evidence arising from this study however suggests that post bid share price performance cumulative abnormal are not significantly greater or worse than zero. Management change results in improvement of performance for the reporting firm but the gains are significantly greater than zero. However, top management change results in greater gains than no top management change takeovers. This is consistent with the view that the disciplinary effect of takeovers implies that management of target firms are replaced by a superior management order to create greater value for the firm (Martin and McConnell, 1991). Evidence from these results also suggest that the threat of a takeover encourages managers of target firms to act in shareholders interests by taking actions that maximize value, hence insignificant cumulative abnormal returns.

This study examined the share price performance of firms involved in takeover activity to detect any abnormal returns around the takeover bid. The main findings of this study suggest that takeovers are value-decreasing events. Evidence in this study suggests that bidders exhibit superior performance when compared with the market and when compared with target firms. Targets of a takeover bid underperform in the period prior to
a takeover bid. Basing on the cumulative abnormal return as a measure of corporate performance, takeovers are value-reducing events.

Management changes following takeovers lead to improvement in the performance of the combined firm. Management retention redeployed in the combined firm leads to decline in share price performance. This is consistent with the inefficient management hypothesis that target firms under perform in the period prior to a takeover bid due to having inefficient managers.

The third observation regarding friendly and hostile bids suggests that there is no significant difference in the performance of firms in the two groups. The disciplinary effect of takeovers does not depend on whether the bid is hostile or friendly and is perceived more as an act of extracting a higher price by target firm management. Hostility is in the eye of the beholder (Schwert, 2000)

The fourth observation in the study is concerned with whether the threat of a takeover bid is disciplinary. Completed bids exhibit decline in post bid performance while lapsed bids exhibit improvements in share price performance. These results are consistent with the findings of Dodd and Ruback (1977), Firth (1980, Asquith (1983, Limmack (1991) who find negative post bid performance of firms involved in completed bids and that the gains/losses reported are not statistically significant.
CHAPTER 5
ANALYSIS OF OPERATING PERFORMANCE

5.1 CHAPTER OBJECTIVE

The objective of this chapter is to analyse and report on the operating performance of UK firms involved in takeover activity in the period 1990 - 1997.

5.2 INTRODUCTION

According to economic theory takeover activity is viewed as a disciplinary device for poorly performing firms and as such they suggest that targets in takeover bids are those that exhibit poor performance. The empirical evidence in this study is consistent with the view of the corporate takeover market as a court of last resort, that is, it is an external source of discipline when internal control mechanisms are relatively weak or are ineffective.

5.3 OPERATING PERFORMANCE

This study primarily examines the operating performance of companies involved in bids that are perceived to be disciplinary. If takeovers are viewed as disciplinary events, the operating performance of target firms should be poorer than that of bidders and control firms. The summary statistics reported in Table 1 show that targets of a takeover bid for the period and sample under review are larger than bidding firms in terms of total assets, sales volume and capital employed. However the operating performance shows that on average, bidding firms are more efficient that target firms. This is inconsistent with the view that bidders are larger than target firms in takeover bids (Singh, 1971, 1975) Table 5.2 shows the pre acquisition of targets compared to bidders and control firms. Table 5.3 shows the effect of takeovers on the operating performance
of combined firms. Table 5.4 shows the effect of takeovers over the years relative to one year prior to the takeover bid. Table 5.5 illustrates the impact of the takeover bid in subsamples using the industry adjusted and industry and size adjusted operating performance. These results are presented and discussed in turn as follows.

5.3.1 PRE BID OPERATING PERFORMANCE

Results in Table 5.2 Panel A and C, suggest that bidding firms outperformed both control firms and target firms for bids that occurred in the period 1990 to 1997. However, the difference between bidders and target operating performance is significantly different from zero in each of the years –3, -2 and –1 relative to the year of bid. Results in Table 5.1 Panel C show that target firms outperform control firms in the period –5, -4 and –3 relative to the year takeover bid. In the period –2 and – 1 years relative to the takeover bid the results suggest that target perform worse than target firms do although the difference is not significantly different from zero. These results are consistent with other studies that reported that targets of a takeover bid perform poorly in the period prior to a takeover bid. This finding is consistent therefore, with the view that bidding firms’ operating performance is more superior than the operating performance of target firms and that bidding do target poorly performing firms for acquisition.
Table 5.1 Summary Statistics

<table>
<thead>
<tr>
<th></th>
<th>Bidders</th>
<th>Targets</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of bids</td>
<td>153</td>
<td>153</td>
</tr>
<tr>
<td>Book value of assets (median)</td>
<td>20197</td>
<td>25554</td>
</tr>
<tr>
<td>Sales (median)</td>
<td>13686</td>
<td>14275</td>
</tr>
<tr>
<td>Capital</td>
<td>17251</td>
<td>18256</td>
</tr>
<tr>
<td>EBIT</td>
<td>2189</td>
<td>2110</td>
</tr>
<tr>
<td>EBIT/TA</td>
<td>10.84%</td>
<td>8.57%</td>
</tr>
<tr>
<td>EBIT/SALES</td>
<td>15.99%</td>
<td>15.33%</td>
</tr>
<tr>
<td>EBIT/CAPITAL</td>
<td>12.69%</td>
<td>11.99%</td>
</tr>
</tbody>
</table>
5.2 Pre Bid Operating Performance

<table>
<thead>
<tr>
<th>Panel A</th>
<th>Period</th>
<th>Bidders</th>
<th>Targets</th>
<th>Z statistic</th>
</tr>
</thead>
<tbody>
<tr>
<td>-5</td>
<td>13%</td>
<td>12%</td>
<td>0.753</td>
<td></td>
</tr>
<tr>
<td>-4</td>
<td>13%</td>
<td>10%</td>
<td>2.423</td>
<td></td>
</tr>
<tr>
<td>-3</td>
<td>12%</td>
<td>9%</td>
<td>2.652</td>
<td></td>
</tr>
<tr>
<td>-2</td>
<td>10%</td>
<td>7%</td>
<td>3.465</td>
<td></td>
</tr>
<tr>
<td>-1</td>
<td>9%</td>
<td>7%</td>
<td>3.137</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Panel B</th>
<th>Targets</th>
<th>Controls</th>
</tr>
</thead>
<tbody>
<tr>
<td>-5</td>
<td>12%</td>
<td>8%</td>
</tr>
<tr>
<td>-4</td>
<td>12%</td>
<td>10%</td>
</tr>
<tr>
<td>-3</td>
<td>9%</td>
<td>7%</td>
</tr>
<tr>
<td>-2</td>
<td>4%</td>
<td>7%</td>
</tr>
<tr>
<td>-1</td>
<td>0</td>
<td>8%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Panel C</th>
<th>Bidders</th>
<th>Targets</th>
</tr>
</thead>
<tbody>
<tr>
<td>-5</td>
<td>13%</td>
<td>12%</td>
</tr>
<tr>
<td>-4</td>
<td>13%</td>
<td>12%</td>
</tr>
<tr>
<td>-3</td>
<td>12%</td>
<td>9%</td>
</tr>
<tr>
<td>-2</td>
<td>10%</td>
<td>4%</td>
</tr>
<tr>
<td>-1</td>
<td>9%</td>
<td>0</td>
</tr>
</tbody>
</table>
Table 5.3 Pre and Post bid Operating Performance Relative to 1 Year Prior to Year of Bid

Panel A Parametric Test

<table>
<thead>
<tr>
<th>Period</th>
<th>-5</th>
<th>-4</th>
<th>-3</th>
<th>-2</th>
<th>1</th>
<th>2</th>
<th>3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mean</td>
<td>13.76%</td>
<td>11.51%</td>
<td>6.76%</td>
<td>1.62%</td>
<td>-.5.76%</td>
<td>-.5.7%</td>
<td>-.6.7%</td>
</tr>
<tr>
<td>T Statistic</td>
<td>6.252</td>
<td>6.781</td>
<td>4.893</td>
<td>1.063</td>
<td>2.514</td>
<td>2.576</td>
<td>2.997</td>
</tr>
<tr>
<td>N</td>
<td>153</td>
<td>153</td>
<td>153</td>
<td>153</td>
<td>153</td>
<td>153</td>
<td>153</td>
</tr>
</tbody>
</table>

Panel B Wilcoxon Signed Ranked Test

| Median | 11.21% | 10.98% | 7.04% | 1.65% | -2.1% | -3.17% | -5.11% |
| Sum of Ranks | 9151 | 8653 | 8243 | 4648 | 4918 | 5484 | 6011 |
| N      | 153 | 153 | 153 | 153 | 153 | 153 | 153 |
5.3.2 POST BID OPERATING PERFORMANCE

Table 5.3 shows the results of comparing the pre bid operating performance of combined firms and the post bid operating performance of the bidding firm relative to the combined operating performance of bidding and target firms in the year – 1 relative to the takeover bid. These results indicate that the effect of the takeover bid, on average, leads to poor post bid operating performance in respect to the combined pre bid operating performance in the year – 1 relative to the bid. The results suggest that the takeover has a negative effect on the operating performance of combined firms. The post bid operating performance declines and a waste of shareholders resources. If these firms go on to merge, the poor post bid operating performance suggest the bid is not made in the interests of bidding firm shareholders. The firms would be better off not merging, and the bidding firms’ financial resources would better be used on other things, such as increasing dividends to shareholders.

5.4 EFFECT OF BID CLASSIFICATION ON POST BID OPERATING PERFORMANCE

The second tests of the effect of takeovers on operating performance focus on pre bid classification of takeover bids. Table 5.4; show results in takeover bids that involve changes in the position of top management of target firms one year after the bids. The test here is whether changes in the position of top management immediately after a takeover lead to improvement in the operating performance of the combined firm. In this table, parametric tests indicate that changes in the position of top management in the target firms leads to poor performance. However, this poor performance is not significantly different from zero. In the situation where there are no changes in the position of target
firms after the takeover bid, the change in the operating performance is positive and significantly different from zero. Table 5.4 also suggests that the change in operating performance is positive both where there is top management change. These results suggest that top management changes have a bearing on post bid operating performance for firms involved in takeover bids.

Table 5.4 also shows results of the effect of takeover bids on operating performance in successful bids and failed bids. The results indicate positive changes in operating performance in both instances, suggesting that in both instances takeovers lead to post bid improvement in operating performance. However, the post bid performance in failed bids is positive but not significantly different from zero. The results in successful and failed bids are inconsistent with literature, which suggest that post bid operating performance is worse for combined firms compared to their pre bid operating performance.

Table 5.4 also shows results for takeover bids in friendly bids and hostile bids. These results suggest that uncontested bids lead to significant improvement in operation performance whereas the contested bids do not lead to significant improvements in post bid operating performance. These results are consistent with the view that hostility is in the eye of the beholder, that is, it is no different from friendly bids (Schwert, 2000).

Results in Table 5.5 attempt to show the difference in operating performance of sub samples evaluating the industry adjusted operating performance (Healy et. al., 1992). The results based on the industry adjusted return model show positive changes but insignificant improvements in operating performance. This suggests that takeovers are profitable over time. \( \beta \) is greater than zero in the three sub samples of takeover bids. The
results suggest that takeovers, based on pre bid operating performance, have a significant positive effect on post bid operating performance between sub-samples based on pre bid classification.
Table 5.4   Effect of Bid Classification on Operating Performance

<table>
<thead>
<tr>
<th></th>
<th>Management Change</th>
<th>No Management Change</th>
<th>Completed Bids</th>
<th>Failed Bids</th>
<th>Friendly Bids</th>
<th>Hostile Bids</th>
</tr>
</thead>
<tbody>
<tr>
<td>$\alpha$</td>
<td>0.087*</td>
<td>0.072*</td>
<td>0.076*</td>
<td>0.029</td>
<td>0.076*</td>
<td>0.029</td>
</tr>
<tr>
<td>$\beta$</td>
<td>0.006</td>
<td>0.083*</td>
<td>0.06*</td>
<td>0.312</td>
<td>0.06*</td>
<td>0.312</td>
</tr>
<tr>
<td>R Square</td>
<td>0</td>
<td>0.073</td>
<td>0.047</td>
<td>0.217</td>
<td>0.047</td>
<td>0.217</td>
</tr>
<tr>
<td>F Statistic</td>
<td>0.005</td>
<td>9.285</td>
<td>6.567</td>
<td>4.709</td>
<td>6.567</td>
<td>4.709</td>
</tr>
<tr>
<td>N</td>
<td>33</td>
<td>120</td>
<td>134</td>
<td>19</td>
<td>131</td>
<td>32</td>
</tr>
</tbody>
</table>
Table 5.5 Evaluating the Difference between Sub-Samples (Industry Adjusted Operating Performance)

<table>
<thead>
<tr>
<th></th>
<th>Effect of takeover bid on operating performance</th>
<th>Effect of management change on operating performance</th>
<th>Effect of Hostile and Friendly bids on operating performance</th>
<th>Effect of successful and failed bids on operating performance</th>
</tr>
</thead>
<tbody>
<tr>
<td>( \alpha )</td>
<td>0.10</td>
<td>0.008</td>
<td>-0.001</td>
<td>0.057</td>
</tr>
<tr>
<td>( \beta )</td>
<td>1.022*</td>
<td>1.026*</td>
<td>1.023*</td>
<td>1.031*</td>
</tr>
<tr>
<td>R Square</td>
<td>89.772</td>
<td>44.65</td>
<td>44.712</td>
<td>46.856</td>
</tr>
<tr>
<td>F Statistic</td>
<td>0.000</td>
<td>0.000</td>
<td>0.000</td>
<td>0.000</td>
</tr>
<tr>
<td>N</td>
<td>0.373</td>
<td>0.373</td>
<td>0.373</td>
<td>0.385</td>
</tr>
</tbody>
</table>
5.5 SUMMARY AND CONCLUSIONS

The main objective of this chapter was to present and discuss results of this study based on the question whether targets under perform in the period prior to a takeover bid. The measure used to analyze performance is earnings scaled by total assets. This measure of operating performance was chosen over other measures of accounting performance because common sense and the majority of shareholders perceive profitability as a better yardstick to measure efficiency over an accounting period. Other statistics such as gearing, operating cash flows are indicators of performance but they are mainly used for making managerial decisions. Accounting results, focusing on profitability as a measure of operating performance suggest that, in the period prior to a takeover bid, target under perform from year −3 to year −1. Based on accounting results, takeovers are disciplinary if target firms under perform in the period prior to the takeover bid. This is consistent with a number of studies that suggest that targets of a disciplinary bid are those that perform poorly in the period prior to the takeover bid.

This study also examined whether there is significant improvements in the operating performance of combined firms after the completion or lapse of takeover bid. The findings of the study suggest that takeovers do not lead to improvements in operating performance of combined firms. These results would lead one to conclude that takeovers are not beneficial in the end (Mueller, 1986) and consistent with the view that managers of bidding firms do not act in the interest of shareholders when they embark on acquisitions.

The post bid operating performance of combined firms was further examined based on classification of the bids into sub samples perceived to be disciplinary. The
results of this study, based on classification of takeover bids suggest that failed bids and hostile bids have no significant impact on post bid operating performance. Post bid management change however has a bearing on post bid operating performance.

These findings in this study suggest that though target under perform in comparison to bidders; they do not perform poorly as they do operate at a loss prior to the date of announcement. These findings are consistent with earlier studies (Powell and Stark, 2005; Ghosh, 2001; Dahya, 2002; Conyon, 1998; and Conyon and Nicholas, 1998), which report that takeover activity is not directly motivated by the inefficient management hypothesis.
CHAPTER 6
TAKEOVERS AND CORPORATE PERFORMANCE

6.1 CHAPTER DESCRIPTION

The main objective of this chapter is to present the overall view of the thesis, the summary and implications and limitations of the main empirical findings in this study.

6.2 STUDY OVERVIEW

Takeovers are viewed as performing a disciplinary function if they are directed at poorly performing firms prior to the launch of the bid. The performance of firms in takeover bids can be assessed by measuring their economic performance (Cowling, 1980). Previous research has focused on the wealth effects of takeover bids and very few focusing on the disciplinary impact. It was the objective of this study to bridge the gap in knowledge by providing evidence as to whether takeovers provide a disciplinary mechanism using a UK database of companies involved in takeovers in the period 1990 to 1997. The period was chosen due to the proposition that takeovers as a disciplinary device are no longer necessary since the publication of the Cadbury Report in 1992, which advocated strengthening internal controls to safeguard shareholders’ investment.

Chapter 2 was a review of literature on mergers and acquisitions that are perceived to be disciplinary. In the review, it was suggested that, basing on share price evaluation and profitability, takeovers are not disciplinary. The chapter also discussed the reported motives of mergers and acquisitions that have a disciplinary bearing on target firms. In order to ascertain and measure the disciplinary effect, takeover bids were classified into sub-samples perceived to be disciplinary.
Chapter 3 defined the criteria for classifying takeover bids that were included in the sample, and sources of data and the methodology for evaluating corporate performance of companies involved in acquisitions. The sample used in this study was derived from various publications of the Acquisition Monthly whereas classification of bids in terms of hostility, successfulness and top management changes was arrived at by checking relevant information in the financial press. Share price and accounting data was collected from different sources in order to get the balance. Share price data was collected from the London Business School Database while accounting data was extracted from Data Stream. Share price performance was analyzed by evaluating cumulative abnormal return with the market return as the benchmark (Fama et al 1969). Accounting performance focused on profitability, with the industry and size adjusted operating performance model (Barber and Lyon 1996, Healy et. al., 1992 and Ghosh, 2001). This study evaluated performance to produce information that is relevant to shareholders who have no inside information. Other accounting data was not examined because the results derived from analyzing this data produces information more for the benefit of insiders such as managers and outsiders such as shareholders. This view is taken because decisions on takeovers, especially disciplinary takeovers as a court of last resort, are taken with a view to benefit shareholders, and not insiders.

6.3 FINDINGS

This examined the incidence of takeover bids around the publication of the Cadbury Report in 1992. The recommendations made in the Cadbury Report published in 1992 are prescriptive for all UK listed companies, but the increase in the frequency of takeover bids after the publication suggests that UK takeover bids are not disciplinary but
are made due to other motives such as risk spreading through diversification, synergy or hubris.

The main findings of this study are reported in chapters 4 (Analysis of Cumulative Abnormal Returns) and chapter 5 (Analysis of Operating Performance). This section is a summary of the major findings of the research based on the specific objectives outlined in Chapter 1. Both uni-variate and multivariate analyses were undertaken to test the developed null hypotheses of zero abnormal returns and zero mean differences between sub samples of takeover bids. T-tests were used to test for difference of means and changes in corporate performance. Medians were used in evaluating accounting performance.

6.4 PRE BID PERFORMANCE

The main objective of this study thesis was to analyze the level of pre acquisition operating performance of bidders, targets and their respective controls and the results are discussed in this chapter. The empirical evidence in the UK during the period 1990-1997 indicates that target companies performance is not significantly different from their respective bidding firms over the 5-year period prior to acquisition. The results for tests of hypothesis 1 in terms of share price performance and operating performance provide evidence to support hypothesis 1. The results of the share price performance are consistent with the view that in a disciplinary takeover, targets under perform in the period prior to acquisition (Manne 1965, Fama and Jensen 1983 and Jensen, 1988). The results for tests of hypothesis 2 provide evidence to support hypothesis 2. These results are consistent with the view that targets of a takeover bid under perform prior to bid. The results for tests of hypothesis 3 and 4 provide insufficient evidence to support hypotheses

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3 and 4. These results therefore, although they suggest underperformance for bids perceived disciplinary, they are inconsistent with the view that hostile bids and lapsed bids perform significantly worse than friendly and completed bids respectively. The difference of the performance in these sub samples is not significantly different from zero. Accounting performance, however, showed that targets under performed in comparison to bidders and control firms but in most cases, the difference is not significantly different from zero. The result is consistent with Manne’s concept of market for corporate control, which suggests that more capable and competent executive teams tend to replace those that are less capable and competent. Based on the results in the current study, acquisitions in UK appear to be non-disciplinary in nature.

6.5. POST BID CORPORATE PERFORMANCE

The second objective of this study was to find out whether there was any improvement in post acquisition operating performance of UK firms. The results for tests of hypothesis 5 do not provide sufficient evidence to support hypothesis 5. Post bid share price and operating performance is worse than pre bid corporate performance although the same results indicate insignificant improvements in lapsed bids. The results are consistent with management entrenchment hypothesis where takeover bids are made with a view to maximize managerial utility common with managers who are too optimistic (Roll 1986). Despite the non-disciplinary motives, the results in chapter 4 provide evidence that acquisitions in the UK during the period 1990-1997 lead to improvements in the operating performance in the end and these results are consistent with Ravenscraft and Scherer (1987). The post acquisition median control adjusted operating performance for the combined firms is significantly higher than their performance during the 5-year
period prior to acquisition. Post acquisition median control adjusted operating performance is then regressed on the pre acquisition operating performance and the intercept indicates that the combined firms obtain an insignificant decrease of 4.0% per year in post acquisition period. The improvement in post acquisition operating performance is inconsistent with the results reported by Healy et al. (1992) and Ghosh (2001) for US acquisitions, and by Manson et al., (2005)

The reasons for no improvements in corporate performance have been attributed to over expectations by managers of bidding firms. Managers of the acquiring firm do experience control problems especially where they do not have the specialist knowledge and skill to integrate the new firm. When a combined firm becomes more complex, the acquiring firm management may lose control and inefficiency becomes the order of the day. This inefficiency increases operating costs and reduces subsequent profitability.

Secondly, profitability declines due to overpayment of premium on acquisition of target firm. Contested bids, prolonged negotiations and competition among bidders have an impact of the post acquisition profitability of the combined firm. Profitable returns on significant investments such as acquisitions take time to be realized. Unfortunately, management performance is assessed within a specific period; an accounting period is usually a year in Anglo-Saxon models of accounting periods.

The results in this study seem to suggest that takeover bids in the UK do aim to reap benefits from synergy, however, management fail to reap these synergies. Change in the position of top management for target firms does not generate significant gains. This can be explained by the agency hypothesis and the hubris hypothesis. The agency hypothesis posits that takeover bids are motivated by the self-interest of bidding firm

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management rather than maximizing shareholder wealth. Successful bids allow managers to diversify their personal portfolio and increase the size of the firm (Firth, 1979; Amihud and Lev, 1981 and Amihud and Travlos, 1990). Poor post bid operating performance is a direct consequence of management making takeover decisions for personal gratification. Personal gratification normally arises from empire building related financial benefits. Berkovich and Narayan (1993) attribute reductions in post bid performance to the agency hypothesis. The results of this study therefore are consistent with the agency hypothesis since the successful bids generated poor operating results.

The hubris hypothesis posits that managers of bidding firm exhibit traits of character filled with self-assuring confidence in their behavior towards acquisitions (Roll, 1986). Managers over estimate the benefits from takeover bids because they believe they can generate higher profits from a hopeless transaction. Since target firms are viewed as those poorly managed, bidding firm managers believe they would manage the target firm to make more profits. The results from this study show that bidding firm managers exhibited elements hubris attitude in pursuing disciplinary bids. This is consistent with Gregory (1997) who concluded that bidding firm managers display hubris when pursuing takeovers.

6.6 EFFECT OF BID CHARACTERISTICS ON POST BID PERFORMANCE

The study examined the impact of bid characteristics on post acquisition performance. Findings suggest that pre bid characteristics of the bid have an effect post bid performance. However, other explanatory variables such as friendly or hostile, and top management changes post bid have insignificant impact on post acquisition performance. However, share price studies indicate that over all targets under perform
bidders prior to a takeover bid while accounting studies report that there is no serious significant under performance. Evidence in this study suggest that targets that survive a takeover bid continue to decline in performance suggesting that gains made prior to a takeover bid disappear when a bid lapses.

Takeover motives vary, but the main reason is that they are investment decisions, which should be consistent with the maximization of shareholder wealth theory of the firm (Shleifer and Vishny, 1989; Matsusaka, 1993). Specifically management turnover has not been examined in answering the takeover question because managers leave the firm for various reasons and very few companies report the real reason for managers leaving the firm. This study however indicates that there is no significant differences between those firms that are replace departing managers by insider promotions and outside appointments. This calls for a finer distinction between disciplinary and non-disciplinary takeovers (Denis and Denis, 1995, Martin and McConnell 1991; Kennedy and Limmack, 1996). Evidence in this study is consistent with the view that the retention of existing management is meant to ensure continuity rather than aimed at performance improvement. This is consistent with Walsh (1988) who suggest that superior post acquisition performance is likely to result when top management are replaced in related acquisitions. Therefore, management retention is evidence that some takeovers are not wholly intended to remove existing management.

6.7 CONCLUSIONS

Finally, this study focused on examining whether targets of a takeover bid perform poorly in the period prior to a takeover bid and that gains from takeover bids arise from synergy and the replacement of managers of poorly performing. The results of
this study are inconsistent with this view because pre acquisition share price and profitability shows that targets under perform when compared with bidders but the difference is not significant in the period 1990 to 1997. The results of this study also indicate that takeovers do not lead to improvements in the operating performance of combined firms. These results therefore suggest takeovers are disciplinary only as far as replacing managers of poorly performing firms by bidding firms who exhibit superior performance in the period prior to the bid. Takeovers, based on results in this study, do not lead to improved operating performance.

The results and implications of this study should be considered in light of the following limitations. First, the dataset was limited to firms that are listed on the London Stock Exchange. This criterion reduced the size of the database and this could have had an impact of the results. In any statistical analysis, results that are more reliable arise from a larger sample than from a smaller sample. However, this sample is sufficiently large to draw reasonable conclusions of whether takeovers are disciplinary. Secondly, this study was affected by data availability and sample size problems. This study however, excluded all takeover bids where the bidder or target in the same bid had insufficient data. The sources of share price and accounting data were from the London Business School Database and Data Stream respectively. Finally, the takeover bids examined in this study include a mixture of tender offers, friendly and hostile bids (Cosh and Guest (2001). Multiple bids were excluded from the sample to reduce contaminating effects arising from different motives for takeover bids (Berkovich and Narayan, 1993; Bruner, 1988; Cosh et. Al., 1990; Caves, 1989)
The main objective of the study was to examine whether takeovers are disciplinary by examining both share price performance and operating performance. Evaluation of performance focused on cumulative abnormal returns and profitability because of the considered view that these measures that are of real significance that enable shareholders to make decisions that affect the acquisition or failure of the bid. The results also suggest that there is marginal increase of takeover bids from the period prior to the publication of the Cadbury Report in 1992 to the period after the publication of this report. The marginal increase in the number of takeover bids suggests that the Cadbury Report has no significant effect on the incidence of takeover bids. This therefore suggests that takeovers in the UK are not motivated by the inefficient management hypothesis (Mueller, 1977; Mikkelson, Wayne and Parch, 1997). UK mergers and acquisitions are motivated by a whole range of considerations, which include marginalizing shareholders and consolidating corporate control by incumbent managers of bidding firms.

Are UK takeovers disciplinary? Although the results in this and earlier studies suggest that targets of a takeover bid under perform in the period prior to the bid, bidding firms do not significantly outperform targets. Are UK hostile bids disciplinary? Hostility in the market for corporate control, by definition, is based on the reaction of target firm management in response to bid offer, and not based on prior performance. Are UK takeovers in lapsed bids disciplinary? While there are greater gains in lapsed bids as compared to completed bids, these bids are not disciplinary. Does top management change reflect disciplinary takeover bids? Top management change after a success takeover bid may be perceived to be disciplinary because it aids speedy firm reorganization when target firm management is out of the way. The market corporate
control is the epitome of capital markets and this market depends on existing corporate
governance structures to work. As the court of last resort, takeovers help shareholders
shop around for new management where internal controls are weak
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