

Broad Lane, Sheffield, S3 7HQ
Telephone: 0114 289 2000
Facsimile: 0114 289 2500



**Literature Review on the
Value of Target Setting**

HSL/2005/40

Project Leader: **Peter Marlow**

Peter Marlow

Human Factors Group

EXECUTIVE SUMMARY

OBJECTIVES

To conduct a review of literature designed to address:

- The effects of target setting on performance within applied and real-world contexts
- The characteristics of targets that affect their value
- The influences on target commitment
- The use of incentives to achieve targets

MAIN FINDINGS

The principal insight from the applied cognitive psychology literature is that under favourable conditions, specific; challenging; accepted (by the target population); well defined goals, referenced to an appropriate time frame, can lead to higher levels of task performance than vague or easily realised goals, or when goals are effectively absent. With a number of important caveats, this finding has potential to generalise to both individuals and groups. The research evidence also underscores the vital role of acceptability of goals, specifically ‘goal commitment’, as a goal can possess no motivational effect if there is no commitment to it. A number of antecedents to goal commitment have also been identified. Of greatest significance are aspects relating to attractiveness of realising defined objectives; perceived potential for goal attainment; sources of defined objectives and perceived legitimacy of that source. Despite a notable variability in research findings, it is apparent that the potentially useful role of incentives to augment commitment levels and improve performance is subject to a range of mediating influences, relating to issues of self-efficacy and incentive valence. However, when dealing with real-world applications, given the highly experimental nature of the majority of psychological insights, the temptation to overly generalise from these findings should be resisted, as a number of important limitations remain.

Although the empirical research evidence on the effectiveness of target setting in real world organisational contexts is somewhat limited, significant consensus exists with respect to the view that targets are best conceptualised as constituting one element embedded within a comprehensive performance management framework, which essentially aim to continuously improve organisational performance, through a process of evaluation and review. Continual and proactive performance review is necessary to provide a feedback mechanism by which to judge the success of a target setting initiative, whilst highlighting scope for improvement and presenting opportunities for target modification, to reflect new insights.

For performance evaluation to be relevant and informative, all commentators agree that selection of appropriate and well-defined performance indicators is critical. However, as many authors point out, it is in this fundamental respect that many schemes are to be found lacking. While there is transparently universal consensus regarding the need for performance indicators to directly support their related targets and provide valid data from which to infer whether targets are having the intended effect, there is relatively little constructive guidance on how this should be achieved.

A significant proportion of authors highlight the potential for performance indicator systems to lead to unintended consequences and ‘*perverse motivations*’, such as ‘*coping strategies*’ on the part of target populations, which frequently serve to undermine the effectiveness of target setting schemes. Some authors go as far as to suggest that such effects are more frequently encountered in public sector organisations, where the multidimensional nature of performance is

said to render outcome indicators less easily measurable. This assumption is however, largely theoretical, and risks underplaying the complexity of work organisations in both the public and private sector. It is equally evident that the effectiveness of targets to motivate performance improvement can only be successfully assessed if an appropriate performance evaluation framework exists.

It is apparent that the range of factors considered to be important in engendering target commitment is broad, however, a degree of consensus exists with regard to the most salient influences. As is demonstrably the case with all organisational initiatives, the success of any target setting or incentive scheme, in no small part, rests upon the tangible commitment of senior management. Secondly, almost all authors advocate a participative approach to target setting, involving representatives of all relevant stratum and groups of personnel. This conclusion is based upon the premise that involvement has potential to increase levels of acceptance and ownership, and hence commitment. However, to be effective such involvement needs to be more than mere consultation, rather it needs to reflect the product of active engagement and dialogue. While further research into the relative merits of top-down or bottom-up models of target setting is needed, it may reasonably be concluded that a combination of both models is perhaps most apposite within the majority of contexts.

Perhaps, somewhat surprisingly, with the exception of the influential role of target legitimacy, the issue of target characteristics that have potential to affect commitment has received comparatively little attention, making it difficult to draw any firm conclusions, other than that of need for further empirical research. A notable consensus does, however, exist, with respect to the finding that the impact of targets tends to be greater when they are ascribed to the activity of small rather than large groups, particularly where target achievement relies upon co-operation between members of the target population. Such effects are generally attributed to group process effects, in particular social conformity influences, and the greater transparency and strength of relationships between the actions of the individual and the realisation of group objectives.

Issues surrounding the provision of incentives, aimed at motivating, or in recognition of target achievement, have been widely debated. When ascribed to safety performance, the debate over the merits of such schemes is somewhat entrenched. Proponents of such approaches (principally health and safety practitioners) cite rewards and incentive payments as an effective means of enhancing safety performance and compliance. Others however, cite the potential for such incentives to mask poor performance, and engender perverse motivations such as a disincentive to report accidents. It is the latter position that tends to be supported by academic findings, although the literature in this area remains limited. This satiation is also potentially clouded by the fact that the transparent variability in findings potentially reflects qualitative differences in quality, nature and scope of interventions between one organisational context to the next. In summary, it is widely held that incentives have significant potential to impact upon performance, although their formulation, method of implementation and the approach to assessment need to be carefully considered, if unintended, dysfunctional, effects are to be avoided.

Critiques of target setting are in the main restricted to issues of procedure rather than at the level of principle. Unfortunately, there remains a dearth of guidance with regard to criteria relevant to the design of effective programmes. It is, however, generally accepted that the potential for target setting leading to 'perverse motivations' is greatest when incentives are of a financial nature; possess a high exchange value, or where their achievement is of an 'all or nothing' variety, or where significant sanctions are imposed for failure to achieve defined objectives.

The majority of the literature concentrates upon the effects of rewards, of various types (intrinsic or extrinsic), associated with the realisation of performance objectives. The literature on the effects of penalties remains scant, other than the basal premise that reward constitutes a more effective motivational influence than punishment. The situation, in the majority of real world organisational contexts, however, reflects a level of complexity that frequently makes it difficult to conceive of influences on human behaviour in such pure terms.

MAIN RECOMMENDATIONS

- On the basis of the available evidence, it appears that, if implemented in an appropriate manner and context, target setting *can* motivate performance improvement. However, it is important to pay due cognisance to the fact that targets alone are unlikely to be effective in enhancing performance, and as such, should not be viewed as a panacea. Targets should be, more appropriately, regarded as an integral component, or tool, that can be applied to support the management process.
- When considering the introduction of target setting initiatives, it is essential to ensure that these objectives are compatible, well integrated and do not conflict with, or otherwise undermine, other organisational initiatives or objectives.
- Organisations should avoid assessing target achievement using single performance indicator. Rather, they should be encouraged to adopt a more holistic approach, using a balanced selection of indicators. This is likely to increase the validity of inferences drawn from performance data and reduce the potential for ‘coping strategies’ / ‘perverse motivations’ amongst those being assessed.
- Careful planning is essential to produce a stepwise progression, particularly in the case of long term objectives, such that the realisation of targets does not become an ‘all or nothing’ exercise. This will help to reduce the potential for de-motivating influences should ultimate objectives not be realised.
- The need for a clear pathway of objectives, to provide intended populations with appropriate feedback on progress towards longer term targets, is particularly important where targets are more distal, for example over a number of years. Such objectives do, however, need to be carefully considered in order to ensure that they maintain focus and provide a clear pathway towards achieving the overall objective. Potential pitfalls here include ill-defined pathway objectives and a loss of direction and focus.
- It is not always easy to accurately predict the effects of interim targets with regard to their contribution towards achieving longer term / overall objectives. The need for careful planning however, including consideration of the scope for target conflict and engendering perverse motivations, cannot be overstressed.
- The provision of employee performance feedback against targets constitutes an important mechanism in promoting commitment. Feedback must be of an appropriate nature and of good fit with the target population’s frame(s) of reference. Effective feedback should also highlight the scope for improvement, and present opportunities for target modification to reflect new insights, or other changes that may threaten the realisation of organisational targets.

- Tangible and visible senior management commitment to any target setting initiative constitutes a prerequisite for commitment at intermediate levels. As in other contexts, the role of front line supervisors and line management is pivotal in defining and impacting upon behaviour on the ‘shop floor’.
- To enhance ownership and motivation of staff, target-setting schemes should, as far as possible, reflect the product of a participative approach. This should, ideally involve representatives from a cross section of the population. Such an approach should reduce the potential for setting unrealistic, possibly, counterproductive objectives, by providing an insight into the scope for target conflict.
- Account should be taken of the size of the population to which targets and subsidiary objectives are ascribed. Of particular salience here are issues of ‘diffusion of responsibility’, and ‘free-rider’ effects, in instances where individuals perceive little or no direct relationship between their own performance and the realization of targets. This issue is of particular salience when dealing with non-cohesive and / or large groups.

In addition to the somewhat partisan nature in certain areas, insights from the literature are limited, or effectively absent, with regard to a number of potentially salient issues. These include issues of target duration; scope; numbers of parallel objectives that can be assimilated at any one time; and the effects of attaching penalties for failing to realise objectives.

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1. GENERAL INTRODUCTION

1.1 OBJECTIVES

The following review is designed to summarise published findings on:

- The effects of target setting on performance within applied and real-world contexts
- The characteristics of targets that affect their value
- The influences on target commitment
- The use of incentives to achieve targets

1.2 SCOPE

Due to the breadth and complexity of literature in this area, findings from this review are presented in a number of discrete sections, although inevitably a degree of overlap will be observed on certain issues. The literature reviewed has been drawn from a wide range of sources and includes contributions from peer-reviewed academic research, policy documents as well as safety, management, and public administration periodicals.

Throughout the review, references and evidence sourced from non-peer reviewed sources are referred to as 'grey literature', as a means of distinguishing them from published academic articles in refereed journals. The distinction is potentially important, in so far as it has implications for the relative degree of confidence in the reliability and validity of reported findings. While articles sourced from within the 'grey literature' have not been subjected to peer review and this does not, by definition, invalidate reported findings, it has implications for the degree of confidence that can be placed in these sources. At worst, *'findings'* reported in the grey literature may contain unsubstantiated claims and some degree of comment at the level of rhetoric and opinion. However, failure to include findings from the grey literature would risk the omission of potentially important insights and, in the case of the current review, would appreciably reduce the size of the available literature base. In order to place the findings presented within an appropriate context, at points where it is appropriate, the reader's attention is drawn to the status of evidence cited, with regards to its credentials referred to the above criteria.

Although the use of 'targets' is widespread throughout all spheres, within both the public and private sectors, it should be highlighted that there is a surprising paucity of scientific literature providing evidence of the effectiveness of their use in enhancing performance in real-world settings. By contrast however, a large amount of literature is to be found in management periodicals and government policy documents, concerning the rationale underlying the use of targets; the optimum methods to use when setting them; and the techniques that should be applied when evaluating performance against targets. These issues will be considered in the review, as they are important factors that determine the value of target use. However, in many cases, the official advice provided constitutes a normative judgement implying the utility of a target setting strategy without obvious basis, and thus may be largely unhelpful and ideological. Much of the literature reviewed often expresses the desirable rather than the actual situation with respect to target setting, suggesting the consensus regarding the merit of target setting initiatives as a means of instigating improvement may perhaps have taken the place of reasoned investigation into the practice of target setting.

1.3 DEFINITIONS

In the literature reviewed, the term ‘target’ appears to be broadly synonymous with the terms ‘goal’ and ‘objective’. Other related concepts, although arguably distinct, such as ‘mission’, ‘vision’, ‘aspiration’ and ‘aim’ are also often found in conjunction with the term ‘target’. The terminology used in this review reflects the term generally used in the literature relevant to each section. For example, applied research commonly uses the term ‘goal’, whereas real-world research tends to use the term ‘target’. At points where it is pertinent, the reader’s attention will be drawn to changes in terminology to reduce confusion.

Some variability is also apparent with regard to the meaning of the term ‘target’, this being dependent upon the context within which it is set. Generally defined, targets *‘are a statement of a particular level to be reached by a given time’* (Lawson, 1987). Hale & Whitlam (1998) simply conceptualise targets as *‘a point to be hit or a desired result’*, a definition that emphasises output rather than input. More specific to organisational contexts, the Central Computer & Telecommunications Agency (1999) suggests that targets are *‘quantified objectives, often set by the management of an organisation, to be attained at a future date’*. Similarly, the UK Government adopts the view that targets describe *‘the level of performance that an organisation aims to achieve for a particular activity’* (National Audit Office, 2001). If taken in summation, these definitions encapsulate the top-down approach to target setting that predominates in real-world target setting initiatives. Implicit in all definitions is the belief that targets promote performance improvement. In some respects, this review examines the validity of this assumption.

1.4 RANGE OF TARGET SETTING TYPES, SCHEMES AND INITIATIVES

It is important to underscore the point that the use of targets and their effects on performance does not easily lend itself to classification. Targets are frequently multidimensional entities that may impact upon multiple dimensions of performance. There is considerable scope for variability regarding the type and duration of target set, and the criteria that have to be realised to attain these objectives. Additional variability exists with regard to the range of individuals and groups who are tasked with meeting defined targets. Further scope for variability is present with regard to the way in which targets are applied or enforced, and the nature of rewards or penalties that may be attached to their attainment. Still further scope for variability is apparent regarding the methods by which the success of target schemes is evaluated. Therefore, the extent to which targets are likely to affect performance will vary as a function of the multiple criteria that influence target commitment. Targets that motivate individuals in one context may have different effects for other individuals in other contexts. Due to the breadth of this topic, it is necessary to adopt a broad-brush approach commenting upon the value of target setting, and focus on the effectiveness of target setting schemes that have already been applied, as these are arguably of most relevance for informing future schemes and initiatives.

1.5 TARGET SETTING BEST PRACTICE

A notably broad literature exists concerning the most valuable and effectual methods to utilise when setting targets [or ‘best practice’], to reap the greatest benefits in terms of performance improvements. Although not the primary focus of the review, it is useful to briefly consider this general advice, as this will inform the reader of currently advocated views, and give insight into the grounds on which many of the present target setting initiatives have been established. A more formal review of the evidence for the basis and actual efficacy of these techniques in gaining commitment and motivating improvement is presented in the main body of the review.

Significant consensus exists within the literature, regarding the salience of a number of ground rules that need to be applied to ensure that targets are set sensibly, and that they prove to have a positive motivating influence on the intended population. An acronym that is widely cited within contemporary management parlance and the target setting literature is 'SMART', i.e. targets should be Specific, Measurable, Achievable, Realistic, and Time-related in order to be effective in improving performance. Numerous authors within government policy documents (see for example Chief Secretary to the Treasury, 1998), management periodicals and other 'grey literature' routinely cite this acronym, and although its use has received little coverage in peer-reviewed journals, it is perhaps worthwhile to briefly explore the ethos of the SMART methodology.

With regard to specific, it is widely accepted that targets should be clear and unambiguous to avoid misinterpretation. Targets must also be measurable, to allow monitoring of progress towards their attainment. It is also the case that there is little utility in setting targets without also constructing effective monitoring systems to assess whether they are being met. Targets should also be reviewed to ensure they are stretching the individual and/or organisation, and encouraging improvements in performance. Targets should be set at a level that is both challenging, yet realistic and achievable. There is a risk that if a target is viewed as unrealistic, it will have a demoralising influence, hence initial commitment and subsequent performance improvements are less likely. Conversely, little motivation to improve is provided if targets are too easy to achieve. If pitched at the appropriate level for the individual/group, targets will provide 'stretch', which should motivate people and organisations to achieve their full potential. This brief description summarises the general consensus concerning the necessary characteristics that effective targets should possess.

2 PART 1 – THE EFFECTIVENESS OF TARGET SETTING ON PERFORMANCE WITHIN APPLIED CONTEXTS

2.1 INTRODUCTION

An examination of the peer-reviewed applied cognitive psychology literature provides some useful insights into the effectiveness of target setting, and is perhaps a sensible place to begin. A number of significant experimental studies have been conducted to further our understanding of the motivational effects of targets, at both individual and group levels. These studies have also sought to explore which factors contribute to committing people to achieve targets. In this literature, targets are more commonly classified as ‘goals’, hence for this section of the review the term goal will be used.

2.2 GOALS TO IMPROVE PERFORMANCE

Goals have emerged as a pivotal, pervasive construct in the motivation literature (Austin & Vancouver, 1996), and are central to current treatments of work motivation and *task* performance (Klein et al. 2001). The bulk of the research examining goals as predictors of performance has been conducted within ‘task-goal theory’ paradigm (see for example Locke & Latham, 1990). The primary finding from the ‘goal-setting’ literature, which is supported by substantial research evidence, is that under certain conditions, specific, challenging, accepted [by the target population] goals can lead to higher levels of performance than vague or easily realised goals, or when goals are absent (e.g. Lee et al. 1989; Mento et al. 1987; Tubbs, 1986). Goals must be sufficiently challenging to motivate, but not so difficult as to de-motivate, or alienate the target population. In this applied context, goal setting is hypothesised to influence performance by increasing effort and persistence, directing attention and actions of target individuals or groups, and increasing motivation. Robust support has been demonstrated for the efficacy of goal setting as an intrinsically motivating tool to enhance task performance at both individual and group level (Wright, 1991).

It should, however, be noted that according to goal-setting theory, goals are far from the sole regulators of human action. Research evidence has shown that goal attainment is also affected by a number of other moderators¹ such as goal conflict (e.g. Early & Northcraft, 1989), presence of and quality of feedback (e.g. Reber & Wallin, 1984), and task complexity (Wood & Locke, 1990), as well as mediators² such as direction of attention, effort, persistence, task specific strategies (Wood & Locke, 1990) and self-efficacy³ (Bandura, 1986). Although a comprehensive discussion of these factors is far beyond the scope of this review, it is however, important to underscore the particular importance of feedback provision. The provision of appropriately framed feedback to the target population details progress in relation to the goal, and is believed to offer a means of enhancing performance levels, possibly through a motivational mechanism of escalated self-efficacy. Some researchers go so far as to suggest that goal setting in the absence of feedback is ineffective (e.g. Locke et al. 1981). The role of feedback in real-world contexts is addressed in section 4.2.4.

¹ Moderator: A variable that may or may not have any direct causal effect but affects the relationship between two other variables (Locke & Latham, 1990).

² Mediator: A causal variable that accounts, in whole, or in part, for the effects of another variable (Locke & Latham, 1990).

³ Self-efficacy: An individual’s belief that he or she can attain specific performance outcomes; task-specific confidence (Bandura, 1986).

2.3 GOAL COMMITMENT

'Goal commitment' has been a central concept in goal-setting theory since its inception and is an essential moderator of the linkage between goals and behaviour (Klein et al. 2001). Hollenbeck & Klein (1987) define goal commitment as '*the intention to extend effort toward goal attainment, persistence in pursuing that goal over time, and an unwillingness to lower or abandon that goal*'. Goal commitment has been identified as an essential condition within task-goal theory, since a goal can have no motivational effect if there is no commitment to it (Locke et al. 1988; Locke & Latham, 1990; Tubbs, 1993). As Locke et al. (1988) state, '*It is virtually axiomatic that if there is no commitment to goals, then goal setting does not work*'.

The primary consequence of goal commitment is to moderate the relationship between goal difficulty and performance. Performance in this sense is taken to represent task performance, commonly an objective measure of quantity or quality of work. High performance occurs only when goal difficulty and goal commitment are both high. Therefore, a high level of goal commitment is a necessary condition for the use of difficult goals to result in a higher task performance (Klein et al. 1999; Locke et al. 1988). In situations where the range of goals is restricted, i.e. only challenging goals are present; goal commitment has been found to have a main effect on performance (Locke & Latham, 1990). For example, when everyone in a defined population shares the same challenging goal, individuals who are committed to that goal will perform at a higher level than those who are not (Hollenbeck & Klein, 1987). However, this positive effect is not observed if goals are set at too difficult a level. Erez & Zidon (1984) for example, report a significant drop-off in performance as goal commitment declined in response to increasingly difficult goals, presumably as the perceived chance of reaching the goal declined.

2.4 ANTECEDENTS OF GOAL COMMITMENT

An examination of the antecedents of goal commitment is also worthwhile, to further understanding of how commitment may be gained. According to Hollenbeck & Klein (1987), the attractiveness of goal attainment and the expectancy of goal attainment are the primary determinants of goal commitment. Thus, individuals are more likely to remain committed to a goal when they feel there is a high probability of reaching that goal, and when they perceive the value of goal attainment to be high. Large gaps between the present situation and future actions can make goals appear unrealistic and fanciful, thus diminishing motivation (Senge, 1990). Considerable empirical support has been provided for this intuitive model (see, for example, Klein & Wright, 1994; Locke & Latham, 1990). Goal commitment is also partially dependent on the origin of the goal, e.g. whether a goal is assigned externally, self-set or participatively produced. Most applied goal-setting studies have focused on the effects of assigned goals, whereby experimental subjects are asked to try to reach a specific level of performance on a task. However, little consensus exists amongst cognitive researchers, as to whether participative or assigned goal setting is most effective in improving task performance, although there appears to be greater weight of literature supporting a participative approach (Locke et al. 1988; Duff et al. 1995). This debate is in stark contrast to views expounded in real-world literature, where a participative approach to goal setting is widely advocated, suggesting clear limits on the external validity of experimental studies (see section 2.8 for a more detailed discussion). Klein et al. (1999) postulates that for assigned goals, there is likely to be much more variability in both expectancy and attractiveness of goal attainment because of other individual and situational factors, which may consequently lower levels of commitment. External influences such as legitimacy of the source of assigned goals have, for example, been shown to consistently affect goal commitment. Locke & Latham (1990) report that goals set by sources viewed by the target population as non-legitimate, tend to gain lower levels of acceptance and commitment (see

section 4.3.5 for further discussion). Klein & Wright (1994) propose further internal antecedents, such as self-esteem and personality type, which will ultimately influence goal commitment and performance, although empirical confirmation of their role is scarce.

2.5 USE OF INCENTIVES

Commitment to goals can also be affected by attaching incentives (or rewards) to the achievement of the goal. Wright (1991), Locke et al. (1988) and Hollenbeck & Klein (1987) hypothesise that incentives increase the attractiveness and value of goal attainment, consequentially increasing commitment to that goal. The considerable applied research investigating the relationship between goals and incentives has focused principally on the effects of immediate rewards attached to successful task performance. Although the results produced have often been contradictory (Pritchard et al. 1988; Locke et al. 1988; Lee et al. 1997), some broad conclusions can perhaps be drawn. On the basis of an extensive review of the applied literature, Locke & Latham (1990) suggest that those studies offering large financial incentives are more likely to obtain performance improvement results than those offering smaller incentives. It is notable however, that significant counter-evidence exists of negative and undesirable effects of ascribing financial incentives to performance (see section 5.6).

One explanation for the general lack of consistent research findings concerns the way in which incentives are tied to performance. Incentives will have undoubtedly been utilised in a variety of ways throughout different experimental contexts, thus differing levels of goal commitment are likely to be produced (Wright, 1991). The valence⁴ of the incentive to the recipient is another characteristic that may explain variable research findings. Valence is determined subjectively and depends upon both the level of the recipient's value for that incentive outcome and the nature and amount of incentive. In social-cognitive theory, Bandura (1986) hypothesises that the effects of incentives depend upon cognitive processes that accompany the incentives, particularly the potential recipient's self-efficacy⁵. According to Bandura (1986), self-efficacy is a powerful and consistent determinant of task performance. He argues that external incentives, or 'reinforcers', will not affect performance unless individuals believe they can perform sufficiently well to attain the incentives offered for performance. There is some, albeit limited, empirical support for this thesis (Wright & Kacmar, 1994; Lee et al. 1997).

Numerous references support the realisation that when individuals are offered external incentives for an activity, the activity almost immediately comes to be viewed as something to engage in for instrumental, or extrinsic, rather than for intrinsic reasons (Bandura, 1986). An individual may also self-administer intrinsic rewards following high performance, such as a sense of achievement or pride (Locke & Latham, 1990). It is suggested that the promotion of intrinsic motivation is more desirable than extrinsic, as this type of orientation will probably produce much higher levels of achievement and commitment related to targets than an extrinsic motivational orientation. Kane & Freeman (1987) hypothesise that an instrumental orientation will tend to evoke a satisficing approach to the activity, whereby only enough effort will be invested in the activity to yield a satisfactory amount of incentive contingent upon the activity.

⁴ Valence: The degree of attraction or aversion that an individual feels toward a specific object or event.

⁵ Self-efficacy: An individual's belief that he or she can attain specific performance outcomes; task-specific confidence (Bandura, 1986).

2.6 DURATION OF GOALS

Surprisingly little attention has been paid to the relative advantages of short term (proximal) and long-term (distal) goals in terms of their motivational value. On the basis of limited experimental studies, Locke & Latham (1990) speculate that short-term goals provide more frequent and immediate opportunities for development of self-efficacy and self-reward based on regular feedback. Kanfer (1990) postulates that long-term goals may potentially be ineffective because they provide few guidelines for strategy development or interim opportunities to develop self-efficacy and self-administered rewards based on performance feedback. However, long-term goals have the potential advantage of allowing flexibility and adjustment in response to ongoing circumstances and contingencies. It is generally recognised that there must be congruence between the periodicity of the goals set and the periodicity of the feedback provided concerning performance level. There is little hard insight from applied research, with reference to the 'ideal' duration over which short and long-term goals should be set. Locke & Latham (1990) observe that goals that are too short-term or frequent may be viewed as intrusive and annoying, whereas goals that are too long in duration may be seen as remote and low priority. The ideal time span, of course, may vary with context, i.e. different tasks and situations and with different types of people. Locke & Latham (1990) are forced to conclude, '*No definite conclusions can be drawn from the studies of proximal and distal goals*'.

2.7 GROUP GOAL SETTING

Although most of the applied research has investigated the effects of goal setting on individuals, a small number of studies have been conducted within group contexts. Weldon & Weingart (1993) reviewed group goal-setting studies and report that, similar to individual-based studies, higher levels of group performance result when specific, difficult group goals are present than when no goals or easier goals are present. Similarly, when a common, difficult goal is assigned to a number of groups, those groups that are strongly committed to that goal will perform to a higher standard than less committed groups. An additional finding is that assigning both individual and group goals for a group task can produce higher commitment amongst group members than assigning individual goals alone (Matsui et al. 1987).

Weldon & Weingart (1988) postulate that group goals may operate via different motivational mechanisms than at an individual level, in that they motivate performance improvements through promoting co-operation among group members and collaborative development of more efficient performance strategies. In support of the necessity of within-group co-operation, Klein & Mulvey (1995) report empirical evidence that cohesive groups generally possess a higher degree of goal commitment and inclination to pursue more difficult goals; tend to perform better; and, are more effective in achieving their group objectives (see section 4.3.4 for further discussion of commitment within team contexts).

2.8 CONCLUSIONS & LIMITATIONS OF APPLIED RESEARCH

It is probable that the SMART methodology advocated throughout contemporary target setting literature has its roots in the experimental literature reviewed above. The above research evidence is generally supportive of the SMART premise, although there are a number of important caveats that may limit the applicability of the applied research findings.

The external validity of findings gained in a research laboratory, in terms of real-world applications is in some respects questionable; at the very least the temptation to overly generalise from these findings should be resisted. Using goals to motivate performance

improvements, in what may often be considered arbitrary tasks in a laboratory setting, may in fact be far removed from situations encountered in the real world, and work organisations in particular. However, some applied researchers contend that findings from this literature can be successfully extrapolated to wider settings (e.g. Locke, 1986). Another criticism that has been levelled at research in this area relates to the fact that goal setting in experimental contexts refers to goals set on an individual or small group basis, rather than being referred to larger samples (e.g. at the level of the organisation or employment sector). Therefore, extending the validity of these findings to targets set at an organisational, industry sector or national level may be, in some degree, open to question. Finally, Scott & Tiessen (1999) highlight further validity issues specific to the use of incentives in laboratory settings, suggesting that such incentives may lack the salience to provoke alterations in recipient's behaviour similar to the 'perverse motivations' commonly witnessed in real-world scenarios. Nonetheless, although readers should be aware of these important limitations that temper conclusions drawn from applied psychological findings, dissemination of the research undeniably reveals *some* applicable underlying motivational principles, as summarised below.

- Under certain conditions, specific, difficult, accepted goals can lead to higher levels of task performance than vague or easy goals, or when goals are absent. Thus, within the contextual limitations highlighted above, goals can be viewed as potentially possessing an intrinsically motivating effect, both at individual and group level.
- Although inherent within the above assertion, the essential role of goal commitment should not be underplayed, as substantial research evidence contends that a goal can hold no motivational effect if there is no commitment to it. Consequently, improvements in performance are witnessed only when goal difficulty and goal commitment are both high.
- A number of probable antecedents of goal commitment have been identified within the applied literature. Those of main consequence are considered to be attractiveness and expectancy of goal attainment, source of the goal, and legitimacy of that source. Notably, there exists much debate as to whether externally assigned, self-set or participatively produced goals encourage the greatest performance improvements.
- Despite variable research findings, the potentially useful role of incentives to augment commitment levels and improve performance is indicated, possibly through the mediating influences of self-efficacy and incentive valence.
- Little has been concluded from applied research with reference to both the relative advantages of short and long-term goals in terms of motivational value, and the 'ideal' duration over which goals should be set. A clear need for further empirical research exists.

3 PART 2 THE EFFECTS OF TARGET SETTING ON PERFORMANCE WITHIN REAL-WORLD CONTEXTS

3.1 INTRODUCTION

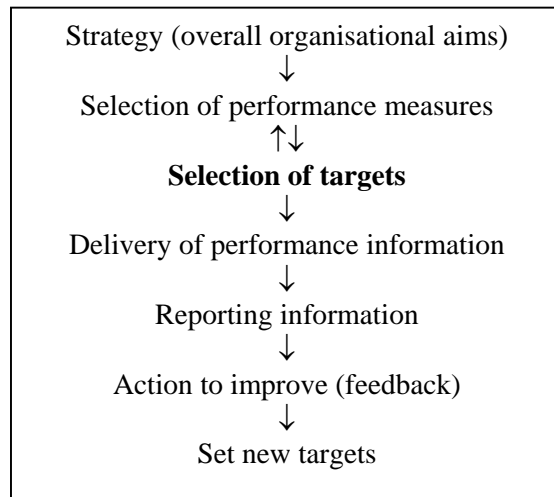
Taken at face value, the applied literature clearly promotes target setting (or goal setting) as an effective performance-enhancing tool. However, the lack of contextual consideration in these studies means it is important to give due consideration to how effectively target setting procedures are operated within real world contexts, and how this may vary with context. The degree of effectiveness is likely to be dependent not only on the achievement of overall objectives, but also on the effectiveness with which supporting targets are applied throughout the organisation. It is important to remember that people in work organisations are subject to a vast array of motivational influences, some of which may compete with each other. When setting targets, it is essential to take account of the potential for target conflict. It is also important that the social complexity of organisations is not underplayed, in assuming single causal relationships with regard to motivating influences. Similarly, the manner in which leadership objectives percolate through organisational structures is such that unforeseen, unintended, consequences may ensue, possibly reflected in the ‘coping strategies’ which people may adopt in relation to poorly defined objectives, or in the presence of competing, contradictory targets. The term ‘target setting’ will be used from this point onwards, to reflect the terminology used within the literature cited.

3.2 MANAGEMENT THEORY/ORGANISATIONAL VIEW OF TARGET SETTING

The majority of literature concerning the real-world application of target setting is management based, where targets are viewed as a managerial tool, to assist in performance management at an organisational level. It is important to remember that in organisations, target-setting initiatives rarely exist in isolation. The target setting approach is more typically integrated with, or at least linked to, wider organisational systems. Targets should more accurately be considered as just one element within a comprehensive and [ideally] complementary performance management framework (Financial Services Authority, 2002; National Audit Office, 2001; Audit Commission, 1999).

Effective performance management should take a holistic and cyclical perspective, which aims to continuously improve organisational performance, by proactively monitoring performance and applying continuous learning principles. There are a number of approaches to performance measurement that adhere to the management philosophy of continuous improvement, the most commonly used of which are ‘benchmarking’ and the ‘balanced scorecard’. A complete discussion of these approaches lies beyond the scope of this review, however Figure 1 overleaf describes a generic organisational performance management framework, based on government recommendations (Central Computer & Telecommunications Agency, 1999).

Figure 1.



3.3 PERFORMANCE MEASUREMENT AND PERFORMANCE INDICATORS

A vital part of performance management relates to evaluation and appraisal. This measurement process lies at the heart of effective performance management systems and defines performance levels with respect to a particular target setting initiative, providing criteria for target attainment and the success and effectiveness of the scheme (McDonald et al. 1995). The knowledge of whether targets have been achieved is crucial to the success of any target setting initiative. The process of continual review provides a feedback mechanism that allows evaluation to lead to improved performance. Feedback gained from review can also help to present the opportunity to modify targets to reflect new insights, and may highlight issues for improvement (Hale & Whitlam, 1998; Portelli et al. 1997). Providing the option to refine targets can help to encourage target ownership and subsequent commitment. Many organisations that set performance targets fail to effectively monitor whether they are achieved, thus may risk defeating the object of setting them. Setting unmonitored or un-measurable targets is likely to be counterproductive, as the lack of available information obtained through the review process will limit the ability to plan improvements. Furthermore, there is a risk that organisations will incorrectly assume that targets are being met, while actual stakeholders experience rather different circumstances. A real threat of disenchantment and failure exists for all managers who are not immersed within the target review process.

For performance evaluation to be relevant and informative, appropriate measures or indicators are required to provide data to assess whether targets are being achieved, and if they are having the intended positive effect on individual and organisational performance. As stated earlier, one of the key features of an effective target is that its effects are measurable in a meaningful way. Therefore, the selection of performance indicators that allow progress against a particular performance target to be monitored is a critical, and often overlooked activity in performance management. Although performance indicators are widely used throughout all employment sectors, important differences are said, by some, to exist between those used by public and private sector organisations. Most commentators consider that it is the multidimensional nature of organisational targets that most obviously distinguishes public sector enterprises from their private sector counterparts (Smith, 1995). Financial output indicators (such as return on capital, cash flow or project profitability) have dominated target setting in the private sector, because the unifying common profit/output objective makes such measures into widely applicable and comparable lowest common denominators. As such, profit-making private sector companies have targets that tend to be more easily tested in terms of output. Wealth creation is a less significant concern in the public sector where greater attention is instead placed on *outcomes*,

which are the impact, or consequence of the organisation's activities (Financial Services Authority, 2002). Outcome indicators, such as measures of service efficiency, tend to be less easily measured; therefore monitoring public sector performance is often far more challenging and complex, as performance indicators have to service a considerably more intricate pattern of accountability than the corporate financial statement (Smith, 1990).

Performance indicators must be chosen carefully to directly support their related targets. There must however, be a high degree of confidence that the performance data obtained gives a true indication of performance against targets, to allow success to be accurately measured. A delicate balance needs to be struck between coverage and practicality; too few indicators and important aspects of performance will be missed; too many and the instrument will be impractical and costly to maintain (Freeman, 2002). Leggat et al. (1998) state that the need for multiple measures should be balanced against the selection of only those indicators critical to agreed targets. An increase in the number of measures may reduce the focus of managers, and lead to demoralisation and a reduction in managerial effort (Smith, 1995).

3.4 PROBLEMS OF PERFORMANCE INDICATOR USE (COPING STRATEGIES AND PERVERSE MOTIVATIONS)

Some authors highlight the potential for performance indicator systems to lead to 'perverse motivations' and unintended consequences, which may undermine the potential effectiveness of target setting schemes (see for example; Goddard et al. 2000; Thompson & Lally, 2000; Roberts, 1994; Smith, 1995; Merchant, 1990). Smith (1995) outlines a number of potential distortions and dysfunctional consequences induced by an over-reliance on performance indicators, principally within the public sector. He claims that excessive use of outcome-related performance indicators can provide implicit incentives that influence managerial behaviour in order to reduce 'workload'. Such undesirable effects are hypothesised to stem from difficulty in securing a consensus as to what public sector performance outcomes and related targets should be, combined with the problems in measuring and interpreting these outcomes. The reader should be aware that the perverse motivations discussed below are only those of greatest immediate relevance. A more complete discussion can be found in Smith (1995).

One of the main issues Smith (1995) draws attention to is 'tunnel vision', which he defines as an excessive emphasis, by management and the workforce, on targets that are quantified in the performance measurement scheme, at the expense of non-quantified/non-quantifiable aspects of performance. There is a danger that by tightly focusing on certain targets (commonly those with easily measurable outcomes, such as quantity rather than quality), other unmeasured aspects are neglected, and performance in these areas may suffer. This distorting effect may be heightened in situations in which certain target achievements are rewarded, at the cost of those that are not (see Weyman, 1999). Managerial tunnel vision is perhaps exemplified by maternity service managers in the NHS who are often held to account by a single performance indicator: the perinatal mortality rate (Committee of Public Accounts, 1990). Although this quantifiable indicator, arguably, reflects a very important aspect of the effectiveness of maternity services, most commentators agree that emphasis on this indicator was distorting the nature of maternity services, to the detriment of non-quantifiable objectives (Health Committee, 1992). Such findings can be interpreted as underscoring the need to avoid concentrating on narrow aspects of performance; by ensuring that performance indicators are as comprehensive and balanced as is possible. For example, if one target has more measures associated with it than another, it may, incorrectly, be regarded automatically as more important. An excessive focus on particular targets may also be self-defeating, if it results in performance data being manipulated or unreasonably interpreted. Failure to capture important non-targeted dimensions of performance

in a qualitative measurement scheme risks distorting behaviour away from broader objectives and may cause the organisation to lose sight of and fail to realise their overall, long-term, goals.

According to Smith (1995), another key managerial coping strategy is misrepresentation, which is the deliberate manipulation of data so that reported behaviour differs from actual behaviour, or is at least selective with respect to what is reported. There is often a clear incentive for managers to alter data under their control to portray their own and/or their organisation's performance in the most advantageous light. Misrepresentation may take two forms: 'creative' reporting and fraud. Creative reporting is possible when there is some discretion about how an event can be recorded, and can take many forms. Creative reporting is especially likely if some professional judgement is needed to describe an event. The possibility for fraud is also always present, particularly when the scope for external audit is limited. The potential for misrepresentation is, arguably, more extensive in the public sector, because of the frequently ambiguous link between inputs and outputs, and because of the considerable scope for identifying plausible reasons beyond the control of management for poor performance. This might be dysfunctional for a number of reasons; most notably that stakeholders might be misled about the level and efficiency of public sector activity. An example to illustrate the potential for misrepresentation is the use of lost-time accident (LTA) statistics as a measure of safety. As is discussed further in section 5.6, a perverse motivation to under-report accidents can be inadvertently promoted by relying on this indicator, particularly if incentives are contingent on target achievement (Weyman, 1999). Smith (1995) suggests that promoting 'ownership' of targets and data may encourage staff to ensure that data are recorded consistently and truthfully.

Within many public sector organisations, performance appraisal is highly complex, and it is often difficult to establish any benchmark for performance that is independent of past performance. Organisations are likely to set implicit or explicit targets based on outcome-related targets achieved in previous years. In this respect, the target setting process based around regular continuous improvement can often suffer from a lack of flexibility, as there is commonly an assumption that target values always have to represent an increase on previous values. An increase in target values over the previous year may lead to staff disenchantment, as the perceived compensation for having met earlier targets is to deliver still more (Strategic Management of Agencies, 1995). Managers, therefore, have an incentive to minimise the apparent scope for performance improvements, as any reported improvement in one year will result in increased expectations and targets for future years. Such behaviour is known as gaming, defined fully as '*altering behaviour so as to achieve a strategic advantage*' (Smith, 1993). Organisations operating under a continuous feedback process have a strong incentive to maintain managerial slack in performance levels. Continued moderate performance enables the organisation to sustain modest targets, with the excuse that external factors were inhibiting improvement. Similarly, on an individual basis, Kane & Freeman (1986) suggest that targets that are also used as appraisal standards tend to pressure individuals to maintain artificially low performance ceilings. These perverse motivations are perhaps exemplified by a now withdrawn scheme in which targets were set by government for acute hospitals within the UK to reduce their costs. In this scheme, hospitals were expected to reduce their costs relative to their costs in the previous accounting year. If effort were spent on reducing costs in one year, there would be no 'reward' in the form of a less stringent target the following year. Thus, where the following year's target was dependent on the current year's cost base, a strong incentive to minimise current cost reductions was provoked, in order to face a less onerous program of cost reduction subsequently (Appleby, 1996; Dawson et al. 2001). Jaworski & Young (1992) claim that there is every opportunity and incentive for public sector organisations to strategically manipulate their performance indicators, particularly if these indicators are to be used as benchmarks for future targets.

In summary, it is evident that the effectiveness of setting targets to motivate performance improvements can only be successfully assessed if an appropriate performance evaluation framework exists. Although many commentators advocate careful choice in selecting performance indicators to increase the validity of inferences drawn from the data (Freeman, 2002), relatively little constructive guidance is provided in this respect. That said, some authors (e.g. Kaplan & Norton, 1992; Feltham & Xie, 1994; Kaplan & Norton, 1996) advocate use of the 'balanced scorecard' approach as a tool to develop a more balanced set of indicators, suggesting it can help to appropriately configure competing objectives. The balanced scorecard is a framework for providing a comprehensive view of an organisation's performance by considering a 'balance' of critical perspectives. The rationale behind this approach is that multiple types of performance measures are necessary to adequately capture all the relevant performance information required to succeed in managing complex environments. For a more detailed discussion of the balanced scorecard approach see Kaplan & Norton (1996).

3.5 CONCLUSIONS

Although the use of targets is widespread throughout all sectors, there is a real lack of rigorous scientific research investigating their effectiveness in enhancing performance in real-world settings. It is plausible that the widespread consensus regarding the merit of target setting initiatives as a means of instigating improvement has taken the place of reasoned investigation into the practice of target setting. For example, many authors typically claim that careful design of target setting schemes overcomes the potential for perverse motivations to occur, although there exists a pervasive lack of any detailed guidance as to how this objective might be realised. Nonetheless, some broad conclusions can be drawn from the existing research, as summarised below.

- The majority of the articles identified conceptualise real-world target setting schemes as one component within a performance management framework, which essentially aims to continuously improve organisational performance, through a process of evaluation and review. Continually and proactively reviewing performance is widely agreed upon as beneficial, as it provides a feedback mechanism that promotes improvement and highlights areas for further development.
- For performance evaluation to be relevant and informative, most commentators concur that appropriate indicators are required, to provide data to assess whether targets are being achieved, and if they are having the intended positive effect on individual and organisational performance. It is widely agreed that performance indicators must be chosen carefully to directly support their related target to increase the validity of inferences drawn from the data, although relatively little constructive guidance is provided as to how this objective should be realised. Use of the 'balanced scorecard' approach is often promoted as a tool to develop a more balanced set of indicators to assist in appropriately configuring competing objectives.
- Some authors highlight the potential for performance indicator systems to lead to 'perverse motivations' which may undermine the potential effectiveness of target setting schemes. These unintended consequences are claimed to be particularly prevalent in public sector organisations, where the multidimensional nature of performance means outcome indicators tend to be less easily measurable.

4 PART 3 - INFLUENCES ON TARGET COMMITMENT

4.1 INTRODUCTION AND SCOPE

As reported elsewhere, based upon substantial applied research evidence, Locke & Latham (1990) conclude that commitment to a target is imperative for it to possess a motivational effect. These studies also highlighted the role of attractiveness and expectancy of target achievement as important antecedents of commitment. However, the effectiveness of any real-world target setting initiative is likely to depend heavily upon a range of factors, few of which are conducive to laboratory testing. A review of these factors is highly salient, and will provide the reader with a more comprehensive understanding of issues to consider when implementing a real initiative.

Theories of motivation stress the presence of a variety of factors that potentially affect target commitment, which operate at three levels: individual, group or work organisation (Hale & Glendon, 1987). In many organisational contexts, it is likely that levels of target commitment will not be static, but dynamic and changeable, to reflect the varying influences of these factors. Drawing from a wide ranging literature base, evidence is presented that within work organisations, levels of target commitment are typically shaped by a multitude of factors, which can be broadly separated into three categories: aspects of the target setting process; characteristics of the targets themselves; and individual differences⁶.

4.2 FACTORS IMPACTING UPON COMMITMENT IN THE TARGET SETTING PROCESS

4.2.1 Employee involvement

A recurring feature of target setting 'best practice' guidance is the emphasis on the need for employee participation at all organisational levels, throughout the target setting process, as a means of enhancing commitment to targets. Such commitment is generally believed to be the result of stimulating intrinsic motivation to achieving stated objectives (Erez et al. 1985; Kane & Freeman, 1987). It is assumed that levels of motivation are enhanced by internalisation of objectives, or acceptance via involvement. As participatively set targets are self-determined and freely accepted, their achievement becomes a measure of one's self worth and competence, validation of which being the essence of intrinsic motivation. Kane & Freeman (1987) suggest it is highly desirable to get people to strive for targets for intrinsic rather than extrinsic motives, because these motives will inspire them to maximise their efforts rather than satisfice, or exert only enough effort as needed to 'get by'. Thus, by way of general consensus, most authors' advocate the inclusion of subordinates in deciding upon subject matter and success criteria of targets they will be working towards. Participation in decision-making should ideally take place both vertically and horizontally, between stakeholders at different levels (Borrini-Feyerabend et al. 2000; see also, Smith, 1995).

Employee participation serves a number of purposes. Firstly, participation can promote and strengthen a sense of target ownership. This can also enhance the credibility of the target setting process and heighten workforce commitment (Rogers & Hunter, 1991; Sloan, 2001). Effective communication and collaborative working are widely cited as constituting key elements in securing ownership of targets. For targets to be realised, all employees need to be encouraged to

⁶ Individual differences: Characteristics or traits along which individual organisms may be shown to differ.

accept them and to see potential benefits in terms of personal development, rather than viewing targets as an insidious process externally imposed from above. Hale & Whitlam (1998) suggest that those who feel they have had a target forced upon them without consideration of their input may prove less committed than those who had an element of free choice are.

In addition, as employees are usually aware of their capabilities, a participative approach to target setting also decreases the likelihood that unrealistic and consequently de-motivating and demoralising targets will be set. If targets are unrealistically high, they set the stage for failure (Deming, 1986). Failure to achieve targets that are too ambitious can disappoint and undermine improvement initiatives. Furthermore, if target figures are plucked from thin air, there is a very real risk that they will lack transparency and meaning; will not be credible; and, will not secure workforce 'buy-in' (Bibbings, 1999). A further adverse consequence is that targets considered appropriate by management may not always match the perception of the workforce (Santos et al. 2000). Management often assume that their employees share a common vision, and intuitively 'understand' their role in achieving organisational targets. Unfortunately, this assumption has routinely been found wanting. The degree of congruence, between management and workforce perceptions of target suitability, has potential to be enhanced through a participative approach. However one caveat should be noted; in situations where individuals set personal targets, there is always a danger they may be motivated to set lower, unchallenging targets that are well within their capabilities (Locke & Latham, 1984a). This dysfunctional effect may be particularly apparent when rewards are attached to target attainment.

A third benefit of a participative approach is that useful information that is known to subordinates, at lower levels, may be passed upwards with resultant performance improvements. The workforce often possesses a superior working knowledge of their capabilities and potential for improvement within their area of expertise, and has a greater awareness of the scope for perverse motivations to arise. An insight into the genesis of perverse motivations may be particularly useful to reduce the likelihood of their occurrence. As an example to illustrate the utility of participation, the Home Office assembled a formal group of interested parties to devise a common approach and achievable local targets that support their broader objective of reducing deaths from fire (Sloan, 2001). The Department reports having benefited from the increased level of dialogue, information sharing, and learning resulting from the wide range of stakeholder expertise, which helped to secure a strong sense of ownership from all those in the delivery chain.

4.2.2 Top-level management commitment

The reviewed literature suggests a clear need for demonstrable management commitment towards achieving targets from the highest organisational level (see for example, Rodgers et al. 1993; Robertson et al. 1999; Bunn et al. 2001). Involving senior managers in the implementation of a target setting initiative is believed to be a vital ingredient for success, with the stronger the commitment, the greater the potential for program success. Robertson et al. (1999) make the point that gaining commitment from the highest echelons of management will not only invariably lead to commitment from lower management levels, but is an essential prerequisite for this to filter down throughout the organisation. A reportedly very powerful strategy is to involve senior management in the launch of the target setting initiative by, for example, asking them to publicise target setting while overtly demonstrating their support (Hale & Whitlam, 1998). There is also a strong case for setting targets for the leaders of organisations, who should also prove that they are working towards targets themselves. Should employees detect that there is not a genuine commitment from the top, there is a very real risk that the whole programme will become devalued and will slide down the organisational priority list.

Therefore managers play a pivotal role in the success or failure of any organisational improvement scheme or initiative, as with any other aspect of business performance.

The importance of senior management commitment to performance improvement is well researched within the safety literature (Lingard & Rowlinson, 1994). For example, in studies conducted within the UK construction industry, both Marsh et al. (1998) and Levit & Samelson (1993) reported management commitment to the improvement process influenced the commitment of the workforce, which in turn affected actual performance. Similarly, Robertson et al. (1999) found that high levels of management commitment to a behavioural modification intervention in the construction industry appear to engender significant improvements in safety performance, whereas low commitment levels increase the likelihood of failure. Further research by Hinze & Raboud (1988), Donald & Canter (1993) and Rodgers et al. (1993) support the premise that management commitment is critical to the success of safety improvement initiatives. Extrapolation of this core observation from the safety-culture literature to target setting suggests the benefits of visible top-level commitment filtering down through the workforce in terms of improved motivation and performance.

4.2.3 Top-down vs. bottom-up models of target setting

There is very little explicit mention of ‘top-down’ and ‘bottom-up’ models of target setting within the literature. However, inferences as to their respective advantages can often be acquired from other contexts. Simply defined, in a top-down [or hierarchical] model, overriding targets are set at the top organisational level for high-level management, these managers set targets for lower-level managers/supervisors, and they set targets for individuals/work groups. Bottom-up target setting adopts a more democratic approach where shop floor and intermediate staff grades set their own targets. Most schemes tend towards the former, with very few of the latter, although some level of combination is frequently encountered (Wisnar & Busse, 2002).

Top-down models have the advantages of being capable of generalisation, are relatively straightforward to realise in practice, and are more easily subject to monitoring. However, the main deficiency of such models is the lack of the benefits gained from employee participation, as targets are generally assigned hierarchically without consultation. Participatory approaches are essential in providing the necessary mechanism for a bottom-up approach. The effectiveness of any bottom-up target setting procedures is also likely to be undermined by a lack of management commitment. With little personal involvement, top management is unlikely to recognise and reward the achievement of individual targets that are set by lower level workers. This will tend to decrease commitment, as recognition by one’s peers and superiors is well supported as an important motivator (Hale & Glendon, 1987). Without top management commitment, target setting at lower levels will very likely be abandoned rapidly. When top management is actively involved in implementing target programs, lower levels are more likely to recognise and believe top management has a personal interest in lower level accomplishments and problems (Rodgers et al. 1993). A two-way dialogue of continuous communications from top-down and bottom-up can then occur, i.e. a cyclical process, as either extreme is undesirable.

Many of the limited references to top-down vs. bottom-up models of target setting were obtained from the education literature. Some commentators suggest the downward pressure exerted from top-down models of target setting has significant drawbacks (e.g. National Priorities Concept Group, 2002). This team claim that such an approach is not only disempowering at every level, but carries a strong hidden message about the nature of hierarchy, learning, and social and educational change. A further disadvantage suggested by Dawes (1998) is that top-down targets imposed nationally are often unconnected to the specific circumstances

of individual schools. On the other hand, there is only limited support for a solely bottom-up approach to target setting, which has been criticised for its idealistic nature and limited workability. Bottom-up target setting models perhaps describe an ideal world, in which people act rationally, critically and with excellent flow of information. The respective shortcomings of both models has led most commentators to agree that the most pragmatic educational paradigm is likely to be a synergetic and negotiated process combining elements of both bottom-up and top-down models. It is likely that such a mutual approach will also be most constructive within other wider organisational contexts, although the importance of research to substantiate these inferences should be underscored.

4.2.4 Feedback

As highlighted within the context of performance management in section 3.3, feedback of an appropriate type is a vital element in the process of evaluating the effectiveness and consequent success of target initiatives, and identifying issues for improvement. On an individual level, feedback may also play a role in influencing target commitment. A number of authors claim that receiving feedback on performance level from supervisors, managers and co-workers can provide positive reinforcement and improve performance (e.g. Robertson et al. 1999; Cooper et al. 1994; Peters & Waterman, 1982). Furthermore, Algera (1990) states evidence suggesting that targets must be accompanied by feedback to be effective in improving performance, presumably through a mechanism of enhanced commitment. In fact, Pritchard et al. (1988) claims that the positive effect of feedback on performance has become one of the most accepted principles in psychology.

A wealth of research concerning the use of feedback has been conducted as part of a behavioural modification approach used in safety management contexts, in conjunction with goal setting, behavioural measurement, and incentive use (see for example, Robertson et al. 1999; Sulzer-Azaroff, 1990). Collectively, as described further in section 5.7, these studies indicate that feedback to employees is an integral part of the package that effectively stimulates improvements in safety performance levels. However, in all these studies, it is difficult to disentangle the exact effects that each of the behavioural components may have had on safety performance, as several components have the potential to generate the changes. That stated, in earlier experiments, use of feedback alone has been sufficient to produce improvements in safety performance (Fellner & Sulzer-Azaroff, 1984; Saari, 1989). Although it is apparent that feedback plays a role in influencing motivation, it is likely that the form the feedback takes will affect its efficacy and the mechanisms by which it affects commitment to a target. Further research to resolve these intricacies is required.

4.3 FEATURES OF TARGETS AFFECTING COMMITMENT

The features of targets themselves can affect target commitment, and the subsequent impact of a target setting initiative. Target features impact on commitment, which in turn impacts on motivation and ultimately performance. Therefore, the following factors perhaps fit more comfortably in a consideration of influences on target commitment.

4.3.1 Number of targets

A notable debate exists regarding the ideal number of targets that can be set simultaneously to optimise initiative commitment, although this is likely, at least in part, to reflect the array of different circumstances in which they are set, and characteristics that they possess. Literature

concerning commitment to multiple targets is surprisingly limited, considering it is extremely common for more than one target to be present in any given context at any one time, particularly in work organisational contexts. A broad consensus from the management literature is that more than six targets attempted by one person at any one time means success in all is unlikely (Lawson, 1987). A more global and intuitive finding is that large numbers of targets will reduce the extent to which an initiative is taken seriously, because the importance of each objective becomes diluted. McTaggart (1998) considers that the use of too many targets can detract from the over-riding performance objectives of the organisation, as conflicts and trade-offs between multiple targets occur. Problems can also arise if existing targets are retained as new ones are added. A plethora of targets can create a confusion of priorities and the subsequent division of commitment can diminish motivation (Makinson, 2000). However, the problem of 'tunnel vision' emphasized previously in section 3.4, may surface if too few targets are adopted, whereby excessive attention is paid to those 'elements' that are targeted at the expense of those that are not (Smith, 1995).

In an attempt to resolve this issue, Hale and Whitlam (1998) recommend that when devising initiatives, key objectives should be identified where achievement or improvement will have most impact. Therefore, where a large number of targets have been identified, it is important to prioritise and weight them accordingly in terms of organisational or individual impact, or effort required achieving them. Within the public sector, the use of weightings is particularly valuable when an agency has been set a broad package of targets that are of varying importance to the department's overall objectives (Sloan, 2001).

4.3.2 Target duration

The relative advantages of short term and long-term targets in terms of their ability to secure commitment have also received unexpectedly little attention within literature from any source. However, according to the SMART methodology that dominates much of target setting the 'best practice' literature, targets should be associated with a timescale or deadline, and be achievable within the time frame given, although there is commonly a paucity of specific detail provided. At the level of the individual, Hale & Whitlam (1998) suggests that target duration should be relatively short, as enthusiasm and commitment is likely to decrease after about six months. Smith (1995) contends that commitment to very long-term targets is likely to be low amongst management; due to the relatively short time managers remain in post. In addition, he notes that 'adopting' a scheme directed at their predecessor is unlikely to lead to optimal personal commitment to target programs. By way of general advice, Lawson (1987) states that if a number of targets are set concurrently, it is wise to stagger the deadlines for attainment. If several targets all fall out at once, the potential exists for insufficient time to be allocated to each target, hence the quality of results may suffer.

Managerial research, within profit-based organisations, postulates two target-setting strategies based loosely on the concepts of long and short-term targets. The 'big-bang' strategy is a long-term approach that suggests quality improvement is more reliably advanced by launching one or two ambitious large-scale programs over a long time frame. By way of alternative, the 'small-wins' strategy utilises a series of short-term projects to produce immediate tangible results. This approach derives from the motivational benefits of using small-scale successes as a platform for building toward large-scale change (Weick, 1984). Mann et al. (1998) state that although by itself, one small win may be insignificant, a series of small wins creates the momentum for fundamental changes in the way a company operates. Careful planning is required however, to ensure that the small-scale targets are of relevance and contribute to the attainment of overall objectives, otherwise they may serve as an unwanted distraction. It should be noted that the generalisability of the above techniques to wider contexts may be subject to question.

The issue of intermediate targets has also received little investigation, despite their relatively widespread use in public policy contexts. The rationale underlying their use is that they provide feedback indicating whether progress towards very long-term targets (in which actions to achieve take time to be implemented and show effects) is at expected levels. Extremely careful design of intermediate targets is required however, in order that they remain salient in their contribution to the realisation of long-term objectives. However, evaluation of progress by way of milestones should be viewed cautiously in contexts such as public sector programs. It is in the nature of such programs, particularly in health and education services, that much activity yields returns only after many years (Smith, 1995). Thus, it is exceedingly difficult to quantify the potential benefits of the program after a limited time period and provide the necessary feedback in the appropriate time frame. Despite real underlying progress, apparent failure to achieve intermediate targets may possess a strongly de-motivational effect to those with little appreciation of the lag-time in improvement, as attainment of the overall objective may then be viewed as unrealistic and unattainable. Further research on the utility and reliability of intermediate targets as a source of performance information is clearly required.

4.3.3 Target scope

The extent to which targets can be considered to possess the potential to gain necessary levels of staff commitment and motivate improvements are also likely to be dependent upon the size of the group at which they are aimed. Where performance targets are ascribed to the performance of larger groups, such as an entire organisation, their impact on individual commitment is likely to be minimal, simply because individuals make a low level of association between the impact of their own actions and the influence this is likely to have on the achievement of the target, given the limited control which they have over the actions of others. Here arises the problem of 'free-riding' (Smith, 1995), whereby individuals rely on the efforts of their colleagues to secure targets, judging that their own lack of effort may not compromise overall performance.

In the case of smaller groups, such as individual work teams, it may be predicted that the influence of target setting initiatives on commitment and subsequent performance of individual members has greater potential to be positive, particularly if these groups are close-knit and cohesive. For example, Scott & Townsend (1994) found that target commitment and participation in target setting within teams in a sewing factory were positively associated with team productivity, group cohesion and group commitment. In addition, teams with higher target levels for productivity were more likely to have higher group cohesion and team commitment. Bandura (1986) similarly stresses the importance team efficacy, the belief that the team can accomplish its targets. Scott & Tiessen (1999) also provide evidence that encouraging team members to participate in developing performance targets enhances the quality of both planning and communication, leading to improved performance. It is apparent that the greater transparency and strength of relationships between the actions of the individual and the achievement of defined or desired targets within smaller groups promotes increased individual responsibility for target attainment and greater achievement motivation.

However, it should be noted that there is some evidence that high team cohesiveness can bring disadvantages, due to the promulgation of 'groupthink', or the '*deterioration of mental efficiency, reality testing, and moral judgement*' (Janis, 1978). Within group decision-making, groupthink is the tendency for the various members of the group to try to achieve consensus. The need for agreement takes priority over the motivation to try to obtain accurate knowledge to make appropriate decisions. Thus, commitment to an assigned target may be overshadowed by an excessive focus on preserving relations among group members and preserving the image of the group. The potential for such negative effects should be considered when targets are

assigned to highly cohesive units (see also ‘group polarisation’ effects, for example Brown, 2000).

4.3.4 Target source

Scott & Townsend (1994) suggest that target commitment can be broadly conceptualised as an indicator of target acceptance; hence an individual must accept a target for it to motivate improvement. With this definition in mind, it is apparent that a key characteristic in determining individual commitment to an assigned target is the target source. Applied research suggests that acceptance of a target is critically influenced by wider perceptions of source credibility, trust and legitimacy, thus target commitment reflects compliance with legitimate authority or power (see for example, Latham & Lee, 1986; Locke et al. 1988). In this instance, findings from applied research may arguably be more validly extrapolated to real-world situations, as the experimenter figure within the laboratory environment may be construed as similar to that of a supervisor/manager. Locke & Latham (1990) report evidence suggesting that where authority is considered legitimate, employees will accept and commit to an assigned goal unless they have specific cause to reject it. One plausible explanation for this discovery is that in industry, most employees expect and consider it is their supervisors right to tell them what to do, because doing what one is told is inherent in the employment contract (Locke et al. 1988). In addition, Oldham (1975) found perceptions of trust to be significantly related to the intent to work hard to achieve an assigned target. The influence of target source on commitment is discussed further with reference to current public sector target setting schemes in part 6.

4.4 INDIVIDUAL DIFFERENCES

4.4.1 Individual commitment to targets

Research by Lee et al. (1992) suggests that individual differences in commitment propensity may affect how favourably targets are perceived and may play an important role in determining target commitment level. For example, two individuals may perceive the same organisational situation differently; what one sees as an impassable obstacle, another may see as a challenge. According to Lee et al. (1992), the higher the commitment propensity, the more focus will be placed on positive aspects of the target, whereas individuals low in propensity tend to focus on more negative aspects. The evidence supporting subjective interpretation of organisational experiences is somewhat limited however. However, it makes intuitive sense that variations in commitment may be related to individual differences in achievement motivation, which may subsequently cause substantial variation in the efficacy of target setting throughout the workforce.

In a similar vein to the role of target attractiveness, the degree of perceived relevance of assigned targets to their recipients is likely to be a fundamental criterion in determining individual commitment propensity. An initiative based on targets that employees do not identify as pertinent to their own interests is unlikely to gain commitment, thus employees need to understand and endorse strategic objectives of the organisation and believe that by meeting their own targets, they are helping to realise those objectives (Marks & Arnette, 1994; Makinson, 2000). It is essential in any organisation for people to feel that the targets they have been set correspond to their own view of an organisation’s performance to promote dedication. Performance feedback may be one method to achieve this purpose.

4.4.2 Organisational commitment

An individual's level of organisational commitment is another factor that has been postulated to influence target commitment. Broadly defined, organisational commitment is one's '*psychological attachment to, or identification with, an organisation*' (Meyer & Allen, 1997). Employees who have a high level of affective commitment (the strength of identification and involvement with an organisation) are more likely to be committed to organisational targets than those who feel that, by necessity they must remain with the organisation for financial reasons (referred to as continuance commitment). Organisational commitment is likely to be enhanced if a participative approach to target setting is adopted and feedback is provided. Lingard & Rowlinson (1994) suggest that the motivational effects of target setting will be limited if employees do not identify and feel involved with the organisation. However, in contradiction Robertson et al. (1999) report evidence that employees *can* identify with a specific organisational target in spite of a low level of commitment to the organisation as a whole. They suggest the same holds true for individual target initiatives, whereby it is possible to have high commitment to the organisational as a whole, yet low individual commitment to assigned targets. Further research to clarify the role of organisational commitment in influencing target commitment is clearly warranted.

4.5 CONCLUSIONS AND FURTHER RESEARCH

On the basis of the above discussion, it is apparent that the range of factors considered to be important in encouraging target commitment is broad, although some general conclusions may be drawn as regards the most powerful influences:

- There is widespread acceptance throughout all sources of literature concerning the utility of a participative approach to target setting, involving all levels of personnel, as a means of promoting target commitment. The many benefits cited include: a potential reduction in the unintended consequences of performance measurement; acquisition of an increased sense of target ownership; enhanced credibility to the process; expanded dialogue; and, provision of an enriched available information base. All of these qualities help to ensure that the risk of setting unrealistic, and consequently de-motivating, targets is minimised.
- A further issue, on which a notable consensus exists, is that demonstrable top-level management commitment to target setting initiatives is a prerequisite for commitment to percolate throughout the organisation. Substantial evidence indicates that initiatives are prone to become undervalued should employees perceive a lack of genuine commitment from the top.
- Research also highlights that target commitment is critically influenced by perception of source credibility, trust and legitimacy. It is widely agreed that target commitment reflects compliance with legitimate authority or power. This finding may also be intrinsically linked to the beneficial effects of feedback provision to employees. Performance feedback against targets is generally accepted to also constitute an important mechanism in promoting commitment.
- Choice exists over the selection of top-down or bottom-up models of target setting. Although further research into the respective advantages and shortcomings of each model is clearly desirable, one may reasonably conclude that a combination of both models is perhaps most apposite within the majority of contexts.
- There is some, albeit limited, evidence endorsing the influence of individual differences on target commitment. The roles of individual commitment propensity and organisational commitment are implicated, yet conclusions as to their respective influence must remain tentative due to scant research evidence available.

There are a large number of other potentially relevant factors that may influence target commitment that currently suffer from a lack of supporting research evidence. For example, the probable role of factors such as working conditions, workplace characteristics, level of training, level of ability, and job satisfaction have not been included due to the paucity of relevant studies, although they may intuitively appear to affect commitment levels. In addition, it is apparent that relatively little attention has been paid to the influence of duration, scope, and number of targets on target commitment levels. An inter-relationship between all these characteristics and expectancy and attractiveness of targets is also possible, which muddies the waters still further when attempting to identify specific relationships. Thus, optimum parameters cannot easily be specified due to the complex and concurrent interplay of multiple factors on which commitment is contingent. At present, insufficient is known about the relative importance of various determinants of target commitment to permit meaningful predictions of their effects on target commitment when there are conflicting elements. Although further research is warranted, some general conclusions may be derived:

- In terms of target numbers, it is widely held that the use of too many targets can detract from the over-riding organisational performance objectives, as conflicts and trade-offs between multiple targets occur. Thus, where a large number of targets have been identified, the importance of prioritisation, in terms of organisational or individual impact, is frequently highlighted.
- The limited references to target duration generally advocate a relatively short time period, due to deterioration in enthusiasm and commitment after about six months, and the potentiality for problems of target ownership resulting from employee/management turnover to arise. In terms of intermediate targets, it may generally be concluded that careful design is required in order to maintain salience through contribution to the realisation of long-term objectives.
- It is broadly agreed that the potential positive impact of performance targets are likely to be greater when ascribed to smaller groups, particularly if these groups are close-knit and cohesive, due to a possible mechanism of greater transparency and strength of relationships between the actions of the individual and the achievement of defined or desired targets. The problem of 'free-riding' is greater in larger groups, whereby individuals rely on the efforts of their colleagues to secure targets, judging that their own lack of effort may not compromise overall performance.

A final point of consideration not fully addressed in the literature is that it is probable that employees working within any organisation may feel differing degrees of work-related commitment to different levels of organisational hierarchy. Unfortunately, research on commitment within organisational settings has generally focused on the organisation as a whole, which may be considered an oversimplification of the situation. It is unlikely that the same level of target commitment exists throughout all levels, potentially resulting in variations of organisational target setting effectiveness. In support, some evidence has been presented of heterogeneity, or plurality, of cultures within organisations (see for example, Mearns et al. in press).

5 PART 4 - USE OF INCENTIVES TO ACHIEVE TARGETS

5.1 INTRODUCTION & DEFINITIONS

The provision of extrinsic incentives, principally of a financial or material nature, in return for target achievement, has been identified as one potential approach to secure commitment towards targets (Weyman, 1999). Incentives are commonly employed as motivational tools in most sectors, consequently there is considerable variability regarding the type and scope of incentives offered by schemes; the criteria that must be realised to attain them; and, the extent to which incentives are tied to performance (Wright, 1989; Halloran, 1996). This variability makes it difficult to conclusively appraise the effects of incentives on target commitment and achievement, as a program that proves effective in one context may be counterproductive in another. From the previous analysis of applied research, there is general agreement that the effects of monetary rewards on task performance are inconsistent (e.g. Lee et al. 1997). Moreover, the applicability of findings from this research to real-world incentive schemes may be questioned due to lack of comparability between laboratory and field environments, as much of the applied psychology literature struggles to address the role of social influence. Therefore, this section of the review adopts a broad-brush approach to the subject, whilst where possible, drawing upon specific real-world examples to illustrate considerations and potential problems in situations where incentives have been utilised.

The term 'reward' is commonly used interchangeably with 'incentive' throughout this literature, although some researchers, such as Geller (1996), have cited what they consider to be a fundamental difference. This author suggests an incentive is an activator (or antecedent condition) that promises a particular positive consequence (reward), when a desired behaviour occurs. Although worthy of mention, this distinction is not highly prevalent within the literature. Therefore, the term incentive will be used consistently throughout this review for convenience, and to reflect its mainstream use in the literature examined.

5.2 ATTRIBUTES OF SUCCESSFUL INCENTIVE SCHEMES

Incentives must possess reinforcing characteristics in order to have the capability to influence future behaviour. Thus, Hinze (1995) states '*an incentive is not appropriate unless it reinforces good behaviour and alters poor behaviour*'. Geller (1996) reasons that the motivating power of incentives is dependent on whether understood consequences actually occur, and the perceived likelihood of their occurrence. Therefore, an effective motivational program requires consistent delivery of consequences, either positive, such as incentives, or negative, such as penalties. Positive reinforcing consequences can be predicted to increase the occurrence of those behaviours that produce them, while negative consequences tend to decrease the frequency of behaviours that produce them (Skinner, 1953). Thus, the likelihood of behaviour being repeated is determined by the nature of the consequences that result from that behaviour.

Peters (1991) proposes that incentives are most effective when used to provide an added spur to an already well-designed target-setting program. Therefore, before incentive schemes are implemented, it is necessary to establish an appropriate background in which to situate the scheme. A requirement that is critical to successful implementation is the active and visible support of senior staff, combined with adequately skilled management (Laurinski & Guyman, 1990; Smith, 1996; Hadler, 1993; Hislop, 1993). It is vital that managers and employees possess a good relationship, so that employees do not view the incentive program as a trick or insincere attempt to promote improvement (Hartshorn, 1995). Steele (1999) reports that effective

communication throughout incentive schemes is a prerequisite for success, to help enable everyone to understand precisely what is required to achieve an objective and generate widespread acceptance. Those involved must also be kept informed of their progress and achievements must be celebrated (Halloran, 1996). Incentive schemes also need to be transparent to gain workforce commitment, with targets that are well defined, objective, fair, and logically related to the scheme. It is important that the scheme has attainable objectives for those participating in the program, otherwise a de-motivational effect may be witnessed, and/or perverse motivations engendered. A final consideration is that performance incentives should be awarded for achieving targets of relatively short duration, otherwise staff turnover and general disenchantment may mean that incentives become diluted (Burgess & Propper, 2000).

5.3 SCOPE OF INCENTIVE SCHEME

The extent to which incentives can be considered likely to possess the potential to motivate performance improvements is likely to be dependent upon the size of the personnel group to which they are awarded (Weyman, 1999). As discussed in section 4.3.3, the principles of diffusion of responsibility also can be applied in this context. Incentives ascribed to the performance of larger groups are likely to have a reduced impact on individual behaviour because individuals make low association between the impact of their own actions and the influence this is likely to have on the achievement of objectives, given the limited control they have over the actions of others. For example, in the case of safety incentive schemes, there is a risk of diffusing responsibility for safe practice such that individuals may come to view their own behaviour as having little input in the realisation of objectives. In the case of smaller groups, such as individual work teams, it may be predicted that the influence of incentive schemes on performance of individual members has greater potential to be positive, particularly if these groups are close-knit and cohesive. Specifically, there exists greater strength of relationships and transparency between the actions of the individual and the achievement of the defined/desired incentive.

5.4 TYPE OF INCENTIVE USED

The nature of the incentive attached to target achievement is also likely to affect the extent of its impact upon individual and group behaviour. Incentives can range from financial remuneration, to extra holiday time, to lottery tickets, to prizes or tokens. There is wide debate regarding the attributes of incentives, such as size and quality, which make them sufficiently meaningful to motivate behavioural change. As highlighted earlier, a key characteristic of an incentive that is likely to influence performance is its valence to potential recipients. If incentives contingent upon good performance are to be used to elicit future good behaviour, it is essential that their recipients value them. Lingard & Rowlinson (1994) state that those incentives that have little or no meaning for their recipients will have no positive motivating effects on their subsequent behaviour. It is difficult to discern what type of incentive to attach to target attainment, as an incentive that may be highly valued by one individual may be viewed as of low value to another.

At first inspection, a solution would appear to be to offer incentives such as financial remuneration, that are of high valence to all potential recipients. However, some authors (e.g. Garland, 1983) have seriously questioned the advisability of offering highly attractive incentives under difficult target conditions, stating that it could be '*motivationally disastrous*'. The negative utility associated with working at full effort to attain a difficult goal and just losing out by a narrow margin is obvious. As Locke & Latham (1990) note, individuals often can come to see the failure to achieve an objective or reward as a punishment. This may have the

damaging consequence of encouraging perverse motivations to attain the target, as will be discussed shortly.

5.4.1 Finance based incentive schemes

The application of financially based incentive schemes has grown considerably over the past decade, such that the majority of private and public sector organisations in the UK operate them in some form, despite mixed evidence concerning their use to motivate performance improvement. On an individual level, a theoretically key motivator in terms of financial incentives is often the fact that the individual has the ability to control the level of their income (Hale & Whitlam, 1998). This suggests that incentives related to the achievement of individual targets are likely to have greater motivational value than standard increments or across-the-board pay rises not linked to differential performance against given criteria. There is a growing consensus from certain quarters that fiscal incentives should be used to motivate employees by linking an element of compensation to the achievement of targets rather than length of service.

Although conventional practice incorporates financial incentives into many employment situations, the link between pay and performance is often implicit or imprecise, rather than explicit or formula driven (Scott & Tiessen, 1999). Makinson (2000) examined systems for reinforcing good performance within the public sector, and concluded '*The link between pay and performance... tends to be extremely weak, although performance-related pay has the potential to be a critical factor in improving performance*'. In a recent large-scale study of employees' attitudes towards performance-related pay, (whereby the achievement of performance targets is rewarded by financial bonuses), Marsden & French (1998) found widespread support within the public sector for the principle of paying for performance. However, the majority of respondents thought that performance pay had helped undermine staff morale and had failed to increase either the commitment of staff or the quality of their work. This stark contrast between approval of the principle and disenchantment with the practice of performance pay may reflect weaknesses in execution and the absence of a clearly defined performance framework. In affirmation of this conclusion, Geller (1996) states '*Critics rarely claim that incentives do not improve performance, only that a certain way of implementing an incentive program is problematic*'. Quality and qualifications of line management and weaknesses of the performance measurement system can represent a potential obstacle to the successful implementation of any incentive scheme (Makinson, 2000).

5.4.2 Prize based incentive schemes

An alternative incentive, commonly used in schemes to improve workplace safety performance, is the provision of 'prizes' or 'awards' when safety targets are achieved. Many authors within the grey literature advocate the benefits of such incentives, on the grounds that they need not be expensive. The types of incentives typically provided appear to range from badges, caps and key rings, through first-aid kits to consumer durables. For the most part, these are perhaps unlikely to possess high valence for the recipient; therefore their motivational value can be predicted to be minimal. Other schemes reported make use of token economies and lotteries. Several authors (Evans et al. 1988; Geller, 1996; Volk, 1994) criticise lottery-based schemes as a poor incentive on the basis that there are 'fewer winners than losers', and that they may send inappropriate messages to employees that accident involvement is largely related to chance variables. It may be concluded that rigorous scientific evidence supporting the utility of prize based incentive schemes is highly limited. Evidence of their shortcomings is however, easily extrapolated from established scientific understandings of human action and motivation.

5.5 SAFETY INCENTIVE SCHEMES

A substantial proportion of the literature concerning the use of incentives has focused on their utility as a method of influencing workforce safety performance to achieve desired safety targets. Although this may be considered a relatively specific situation in which to use incentives, some of the issues raised with reference to ‘perverse motivations’ are perhaps of relevance to wider incentive schemes. Safety incentive schemes in operation currently cover a broad spectrum in terms of the incentives they offer, although the majority appears to be based upon prizes as opposed to financial remuneration. Findings from the safety literature highlight the frequently intense debate between proponents and critics of safety incentive schemes. While those who champion such schemes continue to herald their merits (e.g. Hislop, 1993; Petersen, 1989), those who oppose them stop little short of accusations of bribery, and of buying safe behaviour (e.g. Hansen, 1994; Hansen, 1995; Smith, 1995). However, the majority of the literature in this area lacks scientific rigour, with much of the debate being at the level of opinion rather than established research findings.

Numerous articles provide statistical evidence of impressive reductions in lost-time accidents (LTAs) since the introduction of safety incentive schemes (e.g. Eich, 1996; Bodycombe, 1986; Groover et al. 1992; Haynes et al. 1982), although underlying these results tends to be the suspicion that this amounts to rewards for non-reporting. In a review of the impact of workplace safety incentive schemes, McAfee & Winn (1989) concluded that while findings were not always consistent, there was good evidence that incentives do generally reduce accidents, at least in the short term. Other authors (e.g. Zohar & Fussfeld, 1981; Peters, 1991) have also highlighted the potential for short run benefits, although a general conclusion that can be drawn is that relatively few studies have reported sustainable improvements in safety performance, a notable exception being Duff et al. (1995). The broadly positive findings concerning the use of safety incentive schemes from within the grey literature may be tainted by the potential for a number of undesirable side effects, which are discussed in more detail in the next section. The reader is directed to Weyman (1999) for a more comprehensive review of safety performance related incentive schemes.

5.6 PROBLEMS OF INCENTIVE SCHEMES

The peer reviewed literature raises serious questions over the utility of safety performance incentive schemes, regarding the potential for incentives to promote perverse motivations (e.g. Hale & Glendon, 1987; Geller, 1996). Smith (1997), for example, comments that incentive schemes will inevitably create friction between management and employees, and between groups of employees, which he believes to be a potentially divisive influence within an organisation. Although the dysfunctional consequences considered are mainly specific to attempts to improve safety performance, some can be generalised to incentives used to improve other dimensions of performance. The aspect of safety incentive schemes that has received perhaps the most criticism relates to the focus on reductions in the numbers of lost-time accidents (LTAs) over a given time frame as a measure of safety. A number of authors have made claims that there is good evidence that incentive schemes based solely on LTAs are an inappropriate performance indicator and a counter-productive method of improving safety performance (e.g. Grover et al. 1992; Smith, 1993; MacFie, 1997; MacMahon, 1993).

One key problem is said to be that such simple accident statistics are often invalid as indices of risk, particularly for small and medium sized enterprises (SMEs), where accidents are rare events (i.e. accidents are a risk outcome measure, their absence should not necessarily be taken as a measure of successful risk control). Therefore, they can represent poor indicators,

especially over short time-spans. If incentives are based on accident statistics, businesses might suffer swinging variations in incentive levels as a result of one or two accidents. This may encourage suppression of accident reporting, which can have the effect of hiding poor management systems and workplace hazards. Under reporting is one example of misrepresentation of data, as highlighted earlier, so as to present the organisation's performance in the most advantageous manner. Some commentators cite instances of corruption where accident statistics were altered so that incentives could still be paid out to the workforce (see Weyman, 1999).

Some authors have sought to address, what they believe to be, potentially negative influences of peer pressure, in motivating a suppression of accident reports. This potential has been said to be greatest where incentives are of a financial nature; possess a high exchange value; or, are of the 'all or nothing variety' (Hinze, 1995; Levitt & Samelson, 1993). A specific drawback of any organisation electing to use incentives of particularly high value is that workers may try to hide minor injuries or be encouraged to continue at work despite being injured, so as to avoid jeopardising chances of receiving the incentive. Presentation of incentives that are too valuable may also lead to dissension amongst those employees that do not receive them. Individuals may particularly be subject to peer pressure that suppresses the motivation to report incidents in instances where incentives are ascribed to individual groups or work teams, where conformity influences are likely to be of salience (Groover et al. 1992; Bailey & Jorgensen, 1995; MacFie, 1997).

The reader should be aware that the following potential unintended consequences might be associated with the use of all types of incentive schemes, although particular reference is made to the safety literature. Some authors' claim that incentive programs are notoriously ineffective at engaging long-term commitment to continuous improvement and are only valuable during the time they are active (Krause & McCorquodale, 1996; Smith, 1993). Unless incentives are extrinsically reinforcing, they may not encourage the internalisations of attitudes that lead to long-term improvements regardless of material reward (Smith, 1997). Therefore, since actual alterations of the attitudes and emotions that underlie behaviour of individuals are limited, when provision of incentives ceases, performance levels may return to previous or even lower levels. In terms of safety, it is possible that accident reports may decline possibly due to under-reporting; yet underlying safety problems within the system will remain. Since incentive programs may often lose their value over time, Peters (1991) advocates frequent intermittent introduction of programs to secure substantial long-term maintenance of behaviour.

Team-based incentives are likely to become progressively more commonly used within organisations, since team structures frequently provide the normal unit of organisational performance (Katzenbach & Smith, 1993). However, some researchers claim distinct negative implications can arise from basing incentives on team performance. The principal argument against such schemes is that they encourage 'free-riding', in that they penalise performers and reward passengers (Makinson, 2000; Gaynor & Pauly, 1990). Thus, undeserving employees are swept into the pool of rewarded employees when group incentives are given (Tompkins, 1994). From a safety perspective, the efficacy of an intervention may be undermined as even relatively unsafe workers may be rewarded. Recent employee attitudinal research on the issue of group financial incentives revealed divided opinion (Marsden & French, 1998). Approximately half the respondents in this study within public sector agencies, disagreed with the proposition that it would be better to base performance-related pay on the performance of groups. On the other hand, a significant proportion considered that group performance pay made staff less willing to assist colleagues experiencing work difficulties from different groups and causes jealousies between staff. In contradiction to the latter viewpoint, research by Drago & Garvey (1998) indicates that when individual promotion incentives are strong, individuals spend less effort

helping other workers and increase their own effort. These conclusions suggest the problem may lie more with execution than principle.

Krause & McCorquodale (1996) propose a further problem relevant to all incentive schemes is that over time, the workforce may come to expect to collect incentives. If the incentive becomes a bonus and forms part of the company remuneration package, regardless of changes in performance, employees may simply expect to accrue incentives as a matter of course. Collectively, the above points emphasise the need for any incentive scheme to be carefully designed to avoid adverse effects.

5.7 INCENTIVES AS A COMPONENT OF BEHAVIOUR MODIFICATION PROGRAMS

Much of the recent academic safety literature advocates a move away from incentive schemes based on LTAs as the primary performance indicator, in favour of 'more sophisticated' measures of safety performance. While it may be considered a highly specific aspect of the literature upon which to focus, behaviour modification approaches typically incorporate target-setting (or goal setting, as it is more commonly phrased in this literature) components to improve performance. Although predominantly based around the promotion of safe behaviour within work organisations, examination of target setting within the context of behaviour modification may be construed as of relevance to wider issues of target setting effectiveness and motivation.

Many consequences have been found to function effectively as reinforcers of 'appropriate' behaviour for many people. Performance feedback, target setting, and incentives are the components most widely used, particularly when attempting to reinforce safe working habits, and form the backbone of behavioural modification techniques. In addition to these elements, behavioural modification approaches tend to possess the common feature of some form of behavioural auditing as a measure of safety performance. Benchmarks of current levels of safety performance provide the basis for setting specific, well defined, and behaviourally based targets for future performance. Although the types of incentive used in behavioural modification studies have frequently mirrored those offered for reductions in LTAs, the key difference between behaviourally based and LTA-based incentive schemes are the performance indicators utilised. The former scheme centres on antecedents of behaviour and behaviour itself, hence is concerned with measuring presence of safety rather than lack of it, which consequently avoids focusing on negative outcomes explicitly concerned with failures.

For this reason, a growing number of authors, such as MacFie (1997), suggest that safety incentive schemes should operate on the basis of observed behaviours, or their antecedents, not outcomes. Much of the more recent academic research in this area has, therefore, concentrated upon behaviour modification techniques aimed at rewarding 'safe behaviour', or crediting staff for playing a positive role in safety management, rather than withdrawal of incentives following an accident. Thus within this context, incentives are typically used to reward staff for proactive behaviours such as attendance at safety meetings, participation in safety suggestion schemes, behavioural compliance with safety performance criteria and the adoption of safe working practices. Advocates of this type of approach argue that measurement of safety behaviour is not only more effective than traditional incentive regimes based on LTAs, but also reduces the inherent perverse motivations to under report accidents, and may potentially decrease the negative influence of peer pressure in situations where incentives are ascribed on a group basis (Duff et al. 1995; Makin & Sutherland, 1996).

A number of studies have highlighted the utility of behavioural approaches based on participative safety target setting, combined with performance feedback, to improve safety performance within a number of industrial settings (see for example, Robertson et al. 1999; Laitinen & Ruohomaki, 1996; Cooper et al. 1994; Sulzer-Azaroff et al. 1990; Cooper & Phillips, 1995; Makin & Sutherland, 1996). Duff et al. (1992) specifically tested the individual effects of target setting, feedback and training on safety performance and discovered that target setting combined with feedback produced an effect that was stronger than either technique in isolation, suggesting the use of multiple behavioural interventions is likely to yield the greatest improvements. Based on their findings, many of the above authors claim that the presence of specific, well defined, safety performance targets may be sufficient in itself, without the provision of incentives, to motivate improvements in employee safety behaviour. However, these authors equally point out that, for any such scheme to be effective, a high level of management commitment to safety improvement is an essential prerequisite.

The research evidence cited above is highly specific; therefore a cautious interpretation of the findings is required, as the efficacy of a behavioural approach to motivate improvements in other non-safety performance dimensions may be considered questionable. Furthermore, as behavioural approaches commonly incorporate a range of interventions, often introduced simultaneously, it is difficult to disentangle the effects of the different aspects of the intervention. Nonetheless, despite these caveats, target setting, as a component of a program of behavioural modification, appears able to positively affect safety behaviour and performance.

5.8 USE OF PENALTIES

Little research evidence exists regarding the extent to which penalties are used to stimulate achievement of targets and whether this approach is effective, particularly with regards to improving safety (Peters, 1991). On an individual basis, Sulzer-Azaroff (1987) suggests that negative consequences such as reprimands, penalties, fines and adverse personnel actions, can rapidly reduce unwanted behaviour. However, there is some indication that such disciplinary action can result in reduced morale. In addition, it may often be difficult for organisations applying punishment to meet the necessary requirements of immediacy, consistency, and severity that are vital if there is to be a consistent and meaningful impact on behaviour in the long term (Skinner, 1953; Sulzer-Azaroff, 1982). Penalties can also potentially be perceived as being forcefully and inconsiderately imposed by higher authority, which, as suggested earlier within the context of employee participation, may have the unwanted de-motivational consequences. A final potentially negative implication of penalty use is specific to public sector organisations. For example, in the NHS and rail services, the imposition of penalties to meet targets has become a politically sensitive issue as it raises issues of whether ultimately it is those for whom the service is designed, in this instance the patients, who suffer (Dawson et al. 2001).

At an organisational level, penalties are often construed in more global financial terms, such as increased insurance costs or fines imposed by regulators and the courts for non-compliance, with the majority of the scant literature available concerning health and safety based penalties. There is some agreement that the penalties awarded for health and safety offences are too low. For example, the Environment, Transport & Regional Affairs Committee (2000) adopts the position that a lack of punishment for not improving standards is unlikely to provoke a change in the way an organisation operates, particularly if financial outlay is required to improve health and safety. Therefore, the introduction of harsher penalties for health and safety offences is often advocated on the grounds that low or no penalties send the wrong message to employers, who may find it cheaper to risk breaking the law than implement safe working practices. However, little detail is given regarding the nature and method of imposition of such penalties,

suggesting a clear and unequivocal need exists for further research concerning the use of penalties to enforce improvements in standards.

5.9 CONCLUSIONS AND FURTHER RESEARCH

To summarise, it is evident that limited consensus exists with regard to the efficacy or utility of incentives in workplace contexts. The somewhat inconclusive results regarding the influence of incentive schemes may be attributable to the fact that the precise nature of the scheme and how it is implemented and received may vary considerably from one context to the next. However, some general conclusions may be drawn:

- Most commentators are in agreement that incentives can improve performance, but that inherent problems may surface as a result of the manner in which they are implemented. It should be appreciated that it is inappropriate to pretend a one-size-fits-all approach will work as regards incentive schemes, as it is widely postulated that such schemes 'rarely travel well'. Therefore, it is imperative that any incentive scheme allows for flexible implementation and does not follow preconceived methodologies.
- One aspect critical to the successful implementation of any scheme, as highlighted by the vast majority of authors throughout all literature sources, is the need for active and visible management commitment, both to the targets that are supplemented by incentives and the incentive scheme itself.
- A further theme, implicit throughout the literature, is that incentive schemes should play only a minor/supplementary role in an organisation's performance improvement system, to the extent that they do not constitute the sole initiative in this respect, but are part of a wider package.
- Most authors concur that effective communication and feedback are vital to the success of an incentive scheme as a means of generating widespread acceptance. Schemes also need to be transparent to gain workforce commitment, with targets that are well defined, objective, fair, logically related to the scheme, and attainable for those participating, otherwise a demotivational effect may be witnessed, and/or perverse motivations encouraged.
- It may tentatively be concluded that incentives do not necessarily lead to perverse motivations, although the manner in which incentives are presented, and the methods of performance measurement utilised may potentially affect the likelihood of such dysfunctional consequences. Thus, most criticism has been based on issues of design and implementation rather than principle.
- There exists notable debate concerning the use of incentives based on team performance. Critics claim that they risk undermining the value of any scheme by rewarding passengers and penalising high performers, although the need for further detailed research is apparent.
- From the extensive safety literature, programs based on outcomes, such as reductions in injuries, have drawn greatest condemnation yet such programs remain popular, largely because they are easy-to-administer and may superficially improve injury statistics. One prospective solution outlined is to set targets that relate to process rather than outcome variables, to overcome the problems associated with such questionable performance indicators and to avoid making use of noisy and variable performance data.
- It is generally accepted that the potential for under-reporting is greatest when incentives are of a financial nature, possess a high exchange value, or are of the

‘all or nothing variety’. Furthermore, in terms of accident reporting, it is widely held that peer pressure can exert a suppressive effect.

There exists a need for considerable further scientific research concerning incentive use to clarify a number of currently vague issues. Notably, more research is required to establish whether some types of incentives are more effective than others in motivating improvement, as at present, a variety of incentives have been utilised without proper comparison. In addition, more attention must be directed towards understanding which situational variables moderate the impact that incentives have performance. In relation to this matter, it would also be beneficial to have an improved appreciation of the knock-on effects of using incentives to achieve targets in one area, at the potential cost of non-targeted end-result variables. Finally, at present, the available evidence from the safety literature suggests that the effects of incentive schemes tend to be short-lived, with few authors able to make substantiable claims regarding the long-term benefits of such initiatives. Thus, more research is needed to determine how short-term intermittent incentive programs should be scheduled for maximum long-term impact.

6 PART 5 - HEALTH AND SAFETY TARGET SETTING

A number of the important discussion points raised with reference to target setting initiatives may be illustrated within a consideration of the present UK health and safety initiative 'Revitalising Health and Safety'. Long-term targets and strategies have been implemented to improve health and safety throughout all sectors, with the government leading the way by focusing on improving public sector health and safety. The main challenge is to engage and motivate organisations within the private sector to improve their health and safety performance. Bibbings (1999) underscores the vital need for top-level involvement in this situation, stating that full and visible commitment is required from the government, otherwise a credibility gap will exist and improvements in performance will not be motivated.

6.1 CRITICISMS OF THE 'REVITALISING' SCHEME

Some authors have levelled criticisms at the value of the 'Revitalising' scheme in terms of its ability to gain commitment from the private sector. Smallman (2001) states that there is a lack of obvious business imperative for such organisations to improve their workplace health and safety, suggesting many organisations continue to doubt whether the message 'good health and safety is good business' really applies to them in hard financial terms. As private sector organisations are generally profit-based, targets that provide little obvious financial benefit may perhaps stimulate only modest interest, and consequently possess a low motivational value. This is concurrent with the applied literature concerning the antecedents of commitment, which suggests targets must be attractive to the recipient to ensure high commitment levels. Moreover, Smallman (2001) claims that little scientific evidence exists to suggest that an investment in health and safety produces valuable returns to stakeholders. As a result, health and safety investment is generally undervalued, and it may perhaps become increasingly difficult to *sell* health and safety as a worthwhile scheme (Hopkins, 1999). It may be concluded that preventing accidents and ill-health will receive a much higher priority if this is seen to make a direct contribution to bottom-line profit and dividends.

'Revitalising Health and Safety' has also been criticised over its potential to motivate positive change in small and medium-sized enterprises (SMEs⁷) to improve safety levels in line with newly established targets (Smallman, 2001). SMEs make up 95% of the UK economy and employ more people in total than large firms (Ghobadian & Galleary, 1996; Storey, 1994). Unfortunately, research evidence exists that indicates that it is in SMEs that health and safety improvements are most required, as these companies often suffer from the poorest safety records (Hinze, 1995; McVittie et al. 1997). Eich (1996) has suggested that one explanation for these research findings is that safety targets may be more easily attainable for larger companies because they already have a formally structured safety program implemented and are able to dedicate more manpower, time and resources to safety. However, Smallman (2001) hypothesises that this evidence may be more accurately indicative of a fundamental difficulty in engaging smaller scale companies in nation-wide health and safety initiatives. This author also suggests that health and safety is often a dead letter in SMEs, because many such firms have difficulty understanding their legal duties and are unclear about the action they should take to improve their health and safety standards to meet targeted levels. The necessity of increased stakeholder participation to gain target commitment may be inferred from such observations.

⁷ SMEs: Organisations employing fewer than 250 people (European Commission Recommendation, 1996).

The 10-year duration of the 'Revitalising' targets may also constitute a serious problem both in terms of motivational influence, and accuracy of performance data gained. One key concern is that using targets to compare performance over a 10-year period may not be comparing like with like, due to variation in a number of factors that may contribute to a high level of 'noise' within the data (Bibbings, 2000). For example, there is a need to historically assess the relative contribution of changes in workforce size and hazard exposure versus the efficacy of enhanced technology and preventive intervention, or changes in the wider world of work or society generally. Consequently, this wide range of potentially influential factors make it difficult to infer which variables impact upon health and safety performance. In terms of the motivational value of the initiative, it is likely that a strong diffusion of responsibility for health and safety performance will exist at an individual level, whereby most people will believe that their impact on overarching national targets will be minimal. This effect may potentially be exacerbated by the long duration over which the targets are defined. Lastly, as intimated by Smith (1995), there is an increased chance of managerial turnover within targets set over extensive time spans, which may lead to decreased target commitment. Thus, it is apparent that the duration chosen for this scheme is perhaps likely to suffer from these important caveats. To limit some of these potentially negative implications, milestone targets have been employed to provide an indication of progress towards the overall targets. However, some authors have expressed a degree of doubt concerning over-reliance on information gained from intermediate targets, as the salience of their contribution to the realisation of overall targets is frequently undermined by lack of careful design and planning (Smith, 1995).

A final criticism concerns the performance indicators chosen to assess progress against the 'Revitalising' targets. The chief complaint is health and safety targets represented in terms of incidence of accidental injuries and work-related ill health are often not directly transferable to most businesses (Bibbings, 2000). Even in businesses employing large numbers of people, accidents and injuries can be relatively rare. In SMEs, the average interval between injuries is far greater, even though for them as a sector injury rates may be higher than in larger businesses. The rarity of accident occurrence is such that efforts to improve health and safety within most organisations are understood to be unlikely to reap any immediate tangible benefits; hence there exists a reticence to commit to target initiatives. To not have an accident may be considered to be a non-event, thus is not a motivator in behavioural terms. In addition, as addressed in section 5.6, accident frequency is often lambasted as a crude performance indicator that can encourage perverse motivation to under-report accidents. The difficulties highlighted previously associated with a lack of obvious apparent fiscal gain resulting from outlay to improve health and safety performance may be particularly prominent for these smaller firms. A real need exists to develop a range of more meaningful, possibly behaviourally based, proactive and reactive measures of national occupational safety and health performance, which go beyond rates of physical injury or ill health.

6.2 CONCLUSIONS

In summary, although the 'Revitalising' target setting initiative is, in principle, an excellent proposal, limitations intrinsic to its execution may reduce its potential effectiveness in motivating real improvements. It appears that the major stumbling block is the diversity of organisations the scheme aims to engage, as it is necessary to consider variations between sectors and sizes of enterprises, differences in technology, and also in the corporate culture of the organisations. One potential solution, as put forward by Litske (1997), is the use of economic incentives to motivate employers to improve the standards of health and safety in the working environment beyond a minimum level required by law, without the need for increasingly stringent legislation. At present, there is a lack of incentive provision within the 'Revitalising' scheme as, for example, no link exists between superior health and safety

performance and reduced insurance premia. In this manner, incentives can be a positive benefit to companies, unlike the burden of extra laws that penalise organisations for non-commitment. However, as indicated within the discussion of the use of incentives, there exists a clear need for further research in this area.

7 RECOMMENDATIONS

- On the basis of the available evidence, it appears that, if implemented in an appropriate manner and context, target setting *can* motivate performance improvement. However, it is important to pay due cognisance to the fact that targets alone are unlikely to be effective in enhancing performance, and as such, should not be viewed as a panacea. Targets should be, more appropriately, regarded as an integral component, or tool, that can be applied to support the management process.
- When considering the introduction of target setting initiatives, it is essential to ensure that these objectives are compatible, well integrated and do not conflict with, or otherwise undermine, other organisational initiatives or objectives.
- Organisations should avoid assessing target achievement using single performance indicator. Rather, they should be encouraged to adopt a more holistic approach, using a balanced selection of indicators. This is likely to increase the validity of inferences drawn from performance data and reduce the potential for ‘coping strategies’ / ‘perverse motivations’ amongst those being assessed.
- Careful planning is essential to produce a stepwise progression, particularly in the case of long term objectives, such that the realisation of targets does not become an ‘all or nothing’ exercise. This will help to reduce the potential for de-motivating influences should ultimate objectives not be realised.
- The need for a clear pathway of objectives, to provide intended populations with appropriate feedback on progress towards longer term targets, is particularly important where targets are more distal, for example over a number of years. Such objectives do, however, need to be carefully considered in order to ensure that they maintain focus and provide a clear pathway towards achieving the overall objective. Potential pitfalls here include ill-defined pathway objectives and a loss of direction and focus.
- It is not always easy to accurately predict the effects of interim targets with regard to their contribution towards achieving longer term / overall objectives. The need for careful planning however, including consideration of the scope for target conflict and engendering perverse motivations, cannot be overstressed.
- The provision of employee performance feedback against targets constitutes an important mechanism in promoting commitment. Feedback must be of an appropriate nature and of good fit with the target population’s frame(s) of reference. Effective feedback should also highlight the scope for improvement, and present opportunities for target modification to reflect new insights, or other changes that may threaten the realisation of organisational targets.
- Tangible and visible senior management commitment to any target setting initiative constitutes a prerequisite for commitment at intermediate levels. As in other contexts, the role of front line supervisors and line management is pivotal in defining and impacting upon behaviour on the ‘shop floor’.
- To enhance ownership and motivation of staff, target-setting schemes should, as far as possible, reflect the product of a participative approach. This should, ideally involve

representatives from a cross section of the population. Such an approach should reduce the potential for setting unrealistic, possibly, counterproductive objectives, by providing an insight into the scope for target conflict.

- Account should be taken of the size of the population to which targets and subsidiary objectives are ascribed. Of particular salience here are issues of 'diffusion of responsibility', and 'free-rider' effects, in instances where individuals perceive little or no direct relationship between their own performance and the realization of targets. This issue is of particular salience when dealing with non-cohesive and / or large groups.

In addition to the somewhat partisan nature in certain areas, insights from the literature are limited, or effectively absent, with regard to a number of potentially salient issues. These include issues of target duration; scope; numbers of parallel objectives that can be assimilated at any one time; and the effects of attaching penalties for failing to realise objectives.

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