The impact of performance targets on behaviour:
A close look at sales force contexts

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Executive Summary

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When we think about the impact of performance targets on behaviour the words "high but achievable" immediately spring to mind. We need to set targets at a high level to stretch staff, but the target needs to be perceived as achievable if the staff are going to accept the stretch. However, in real life the world is much more complex than this.

We know from previous research that the use of performance measurement is wide spread in UK companies, with significant use of the Balanced Scorecard and near universal use of Key Performance Indicators (Franco-Santos, Bourne & Huntington 2004). Targets and measures, often reinforced by incentive systems, then drive performance.

So performance measurement, target setting and incentives are all important issues but often there is disquiet about targets and whether they have the right impact on people's behaviour and organisational performance. In this research, we have reviewed the literature, undertaken four detailed case studies in a sales environment and conducted a survey to better understand the factors that influence perception of target difficulty. Our findings are as follows:

1. We believe that to be of practical value, performance targets have to be set within a wider framework of the organisation's performance measurement system and the incentive system.

2. We identified 10 common issues associated with the target setting process that undermined its effectiveness.

3. We developed a comprehensive process for target setting – "The target setting wheel"

4. We identified 3 factors that have an impact of the perception of target difficulty.

We will briefly describe each of these in turn.

Targets, measures and incentives

Much of the academic literature looks at target setting in isolation. We believe that to be of practical value, performance targets have to be set within a wider framework of the organisation's performance measurement system and the incentive system. Figure A presents our framework that links the elements of target setting, performance measurement and incentives that need to be considered when developing an approach to influencing people's behaviours.

Figure A. The impact of incentives, measures and targets on behaviour
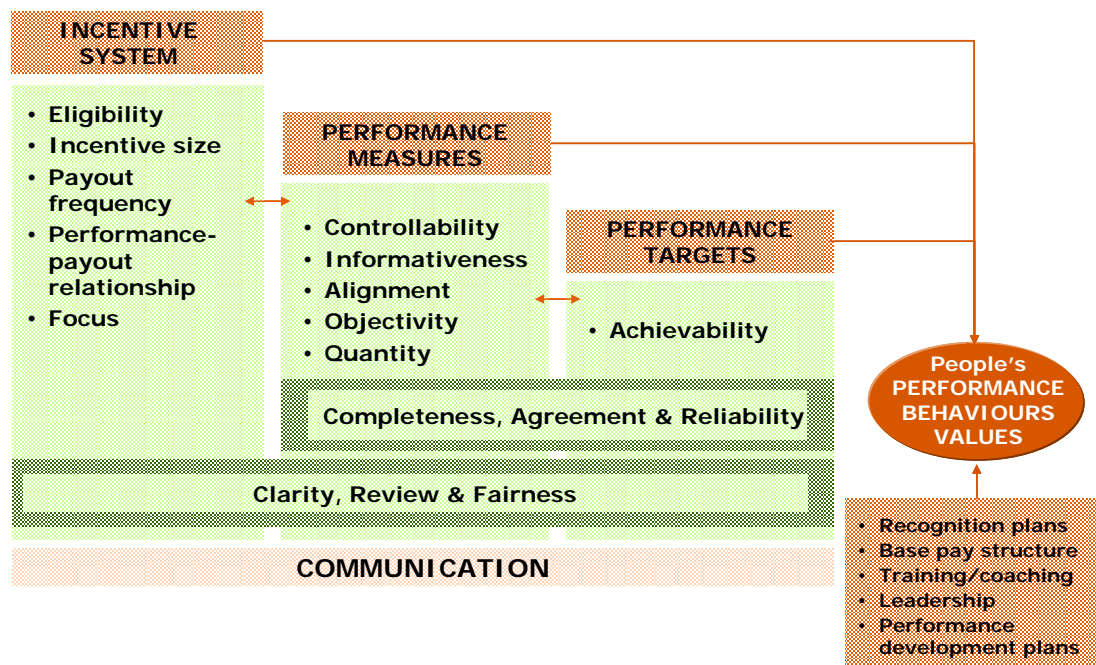
Note: Factors are NOT located in order of importance. Equal importance is assumed.

As can be seen, target achievability is only one of many factors.

10 Common issues in target setting

In our study of sales contexts we identified 10 common issues that undermined the effectiveness of targets.

1. *Their forecast was mainly based on past performance* - so people don't over achieve when it will make the next year's target so much harder.

2. *Targets were allocated inappropriately across the sales force.*

3. *Targets were perceived to be either too high or too low* - too high de-motivates, leading to non-achievement - too low means paying bonus for poor performance.

4. *Some targets were based on the wrong performance measures* - This was often referred to as "hitting the target and missing the point".

5. *Targets were entirely based on financial indicators* – even when factors such as customer relationships were absolutely critical.

6. *The data analysis process on which targets were based was poor and lacked rigour.*

7. *Targets were not periodically reviewed* – so were overtaken by events.

8. *Targets were "given" to the sales people* – so not creating ownership.

9. *The interrelation between targets was not considered* – causing inconsistency.

10. *Agreed action plans were the exception and not the norm.*

A comprehensive 10 step target setting process

Figure B. The target-setting wheel
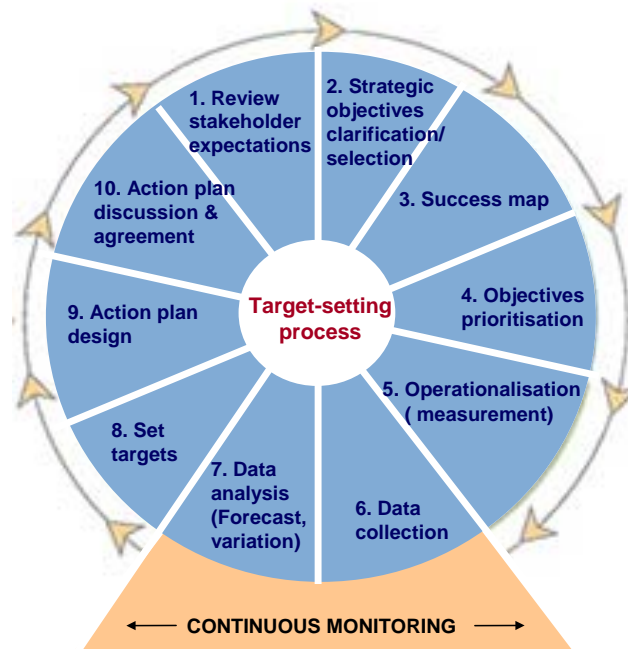
1. *Review stakeholder expectations* - "what do they expect from this organisation?"

2. *Strategic objectives clarification/selection* - a few clear statements of what the organisation aims to achieve addressing those key stakeholders' requirements.

3. *Define the organisation's success map* – the cause and effect relationship that describes how the organisation creates value to their stakeholders.

4. *Prioritise objectives*

5. *Operationalisation* - defining the KPIs to be used to measure each strategic objective.

6. *Data collection* - defining the data source, who measures and how often.

7. *Data analysis* - including both *forecasting* and *capability* analysis:

8. *Set targets* - deciding on specific performance targets for the organisation's KPIs.

9. *Action plan design* - organisations need to spend time deciding on the actions that will help them achieve their targets.

10. *Action plan discussion and agreement* - Targets must be communicated together with the action plan for delivering the targets. The action plan MUST be discussed and agreed with those accountable for reaching the targets.

Factors influencing perceived target difficulty

Given the maxim "high but attainable", it is important to understand the factors that influence perceived target difficulty. In this study of sales contexts we found that the following help people perceive their targets as being less difficult: -

1. having a clear idea of what their role and performance expectations are;

2. having a supportive organisation where risk-taking, continuous learning and improvement are encouraged; this promotes greater ownership of the targets, which in turn positively affects perceptions about how difficult these targets are;

3. participating in the target-setting process.

Interestingly, management's view of role and performance clarity often differed from the sales force. Similarly, management often believed that the sales force had participated to some extent in the target setting process, whilst the sales people simply perceived that they had been given their targets, often with little explanation of how they were set, why they were important or how they were to be achieved. In this respect, communication is an extremely important factor in the whole process and can help overcome many of the difficulties that can arise when things don't turn out the way they were expected to.

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1. Introduction

Performance targets are one of the most used managerial tools in the corporate world. Performance targets –also referred to as assigned goals, quotas or performance aspiration levels[1]– can be defined as the objects or aims of managerial actions (Latham, 2004) or as borderlines that differentiate success from failure (Lopes, 1987). Performance targets are, for example, to attain a 10 percent increase in sales or to improve customer satisfaction. Targets are mainly used for motivating specific behaviours, establishing expectations, evaluating and rewarding performance. At present, the use of performance targets seems to be ubiquitous; however, a high proportion of organisations have reported to be dissatisfied with their targets arguing that this management tool is not generating the expected results (Marchetti and Brewer, 2000).

In research terms, several management fields have focused their attention on the nature and effects of performance targets. Organisational behaviour researchers, for example, have looked at the impact of assigned targets (i.e. targets set by superiors, also known as assigned goals) on performance for over 30 years. One of their main findings has been that people perform better when they are assigned specific and difficult targets than they do when they are assigned easy targets or "do your best" type of targets (Locke and Latham, 1990). This prediction has been proved to be so strong within the organisational behaviour literature that the use of performance targets is now regarded as an important aspect of motivation theory and management education (Ambrose and Kulik, 1999). Nevertheless, this area of research is far from being conclusive as there are numerous gaps that remain to be addressed. Furthermore, not all the management literature is in favour of the use of performance targets for managing employees' performance. For instance, quality management research is very critical with the use of targets for motivation and performance management purposes (e.g. Deming, 1990).

Quality management researchers and consultants such as Deming (1990) suggest that business goals are necessary for management (e.g. constancy of purpose and continuous improvement). However, performance targets established for employees without a road map have effects opposite to the effects sought. Deming (1990) stressed that performance targets are "a fortress against improvement"

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[1] It must be noted that the concepts of assigned goals, quotas and aspiration levels will be used interchangeably throughout this report. When the concept of performance targets is used it will always refers to targets that are assigned by superiors unless it says otherwise. The literature on self-assigned goals or targets is outside the scope of this research.

(p.71). Other quality management researchers argue that performance targets do not take into account the essential properties of the organisation as a system. This leads to detrimental results for the organisation in the long run, such as stressful work environments, low trust culture, data manipulation and financial performance losses (e.g. Gregory, 2007).

In sum, a conflict exists between the different research schools that have studied performance targets as mechanisms for influencing behaviour and performance. This lack of consensus is a hurdle for managerial practice, as it does not provide clear guidance about what to expect from the use of this technique. One way forward proposed by some researchers is to stop questioning the validity of performance targets and to start searching for those environmental conditions under which the use of targets is effective and ineffective (Locke, 2004). Another way forward is to address the problems that we already know performance targets generate by integrating the insights extracted from different management literatures –for example, organisational behaviour and quality management (Carlson and Carlson, 1993) –; and by exploring performance targets using a wider focus than the one typically used. For instance, organisational behaviour research has mainly investigated performance targets as isolated elements affecting behaviour. Some studies have taken into consideration the linkage between performance targets and pay (e.g. Locke and Latham, 1990); but little work has focused on the intrinsic relationship between performance measures and targets, which is widely acknowledged as an important issues by performance measurement researcher (e.g. Johnston, Fitzgerald, Markou and Brignall, 2001; Manzoni, 2002; Otley, 1999). In fact, the effects of performance targets, measures and incentives should be considered in combination as all of them tend to be interrelated.

Taking into account these suggestions for progressing the research on performance targets and for providing new insights to management professionals, this research aims to address three specific objectives. One objective is to investigate the behavioural effects of sales performance targets in relationship with sales forces' incentive pay plans and sales performance measures. The sales function was chosen as it is known that in this environment performance targets are widely used (Alexander Group, 2004; Wotruba and Thurlow, 1976). A second objective is to examine the issues associated with target-setting processes and to define an improved procedure in which the knowledge of the different areas of target-setting research will be integrated. The third objective is to further understand the factors that affect how difficult a performance target is perceived to be as this perception seems to be the most critical driver of behaviour and performance (Atkinson, 1974; Locke and Latham, 1990; Vroom 1964;). In order to address these objectives, two different research methods have been employed. The first two objectives have been addressed using case study research. The third objective has been addressed using survey research.

This report presents the results obtained in this study. It is structured as follows. Firstly, a brief review of the academic work previously conducted on the impact

of performance targets on behaviour is presented with a special emphasis on the studies that focus on sales professionals. Secondly, the report provides detailed information about how the Cranfield study has been developed. Thirdly, the insights extracted from the research are summarised. Finally, concluding remarks together with implications for managers and researchers are outlined.

2. What we know about target-setting and its impact on behaviour: a special emphasis on sales contexts

The review of previous research on target setting and its impact on behaviour has been classified into five sections. The first section summarises the key predictions that different organisational theories suggest regarding the effects of performance targets. The second section reviews the empirical research that has examined the effects that performance targets have on behaviour with a special emphasis on research conducted in sales functions. The third section explores the literature on the linkage between performance targets and monetary incentives. The fourth section describes critical issues associated with performance measurement. The fifth section outlines what is known about optimal ways of setting performance targets in organisations. Finally, the sixth section looks at the set of factors that have been found to affect people's perceptions on the level of difficulty of their targets.

2.1. The impact of performance targets: Organisational theories

Several organisational theories have looked at the effects of performance targets on behaviour and performance. There is a set of theories that look at targets as motivational tools and explain their effects from a psychological point of view, for example, Vroom's (1964) *expectancy-value theory*; Atkinson's (1957, 1974) *achievement motivation theory*; and Locke and Latham's (1990) *goal-setting theory*. There are theories that study performance targets as decision-making tools as in the case of Kahneman and Tversky's (1979) *prospect theory* or Greve's (2003) *theory of learning from performance feedback*. Finally, there are theories that investigate performance targets as interest-alignment mechanisms such as *agency theory* (Jensen and Meckling, 1976; Eisenhardt, 1989) and Wiseman and Gomez-Mejia's (1998) *behavioural agency theory*. The key predictions about the impact of performance targets suggested by these theories are now briefly described.

2.1.1. Motivation theories

Three motivation theories have centred their attention on the effects of performance targets. These are the *expectancy-value theory* (Vroom, 1964), the *achievement motivation theory* (Atkinson, 1957, 1974), and the *goal-setting theory* (Locke and Latham, 1990).

Vroom's (1964) *expectancy-value theory* suggests that the desirability of a reward and the individual's estimate of how likely s/he will be to secure the reward constitute equally important motivators of actions (Walker, Churchill and Ford, 1977). According to these suggestions, expectancy theory then predicts that if targets are set at a very high level they will diminish motivation and performance, as people will perceive a low probability of achieving them (see Figure 1 for an illustration).

Figure 1. Expectancy theory predictions
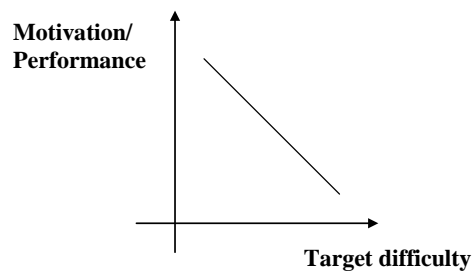
Atkinson's (1957, 1974) *achievement motivation theory* proposes that individuals are motivated mainly by performance targets that are set at levels of intermediate difficulty –neither too high nor too low. Individual motivation (and performance) decreases as the perceived difficulty approaches the very easy (i.e. the individual is certain that s/he will achieve his/her target) or the impossible (i.e. the individual is certain that s/he will fail to achieve his/her target) (see Figure 2 for an illustration).

Figure 2. Achievement motivation theory predictions
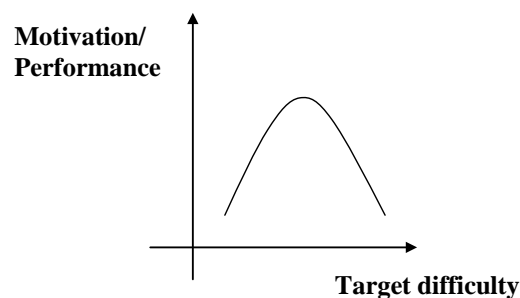
Locke and Latham's (1990) *goal-setting theory*, which is probably the most comprehensive and well researched theory of these three motivational theories, predicts that specific and difficult targets will enhance individual performance more than "do your best" type of targets (see Figure 3 for an illustration). According to goal-setting theory, "do your best" goals are too abstract and vague. They do not provide a clear external reference for evaluation and, thus, they allow

for a wide range of performance levels that are acceptable to different people (Latham, 2004).

Figure 3. Goal-setting theory predictions
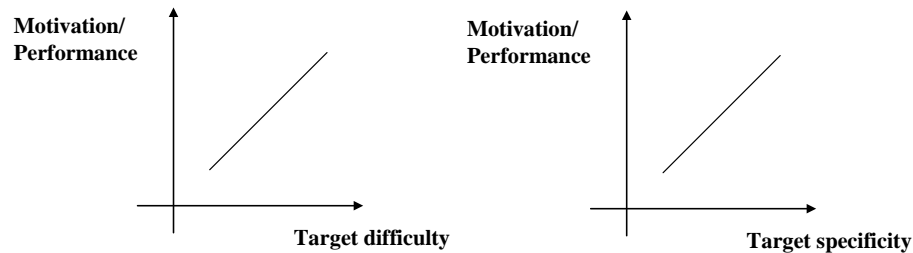
It is interesting to note the existing conflicts among these three theories. Some researchers have addressed this issue by looking at additional factors that may explain the contradictory results of the impact of performance target difficulty on motivation and performance. For example, Chowdhury (1993), suggests that the relationship between the level of target difficulty and motivation is influenced by a third variable, which is people's impressions of their personal efficacy or sense of competence. Overall, it can be argued that there is still room for further research in this area as we are still not clear about the reasons why target difficulty can have these different effects on motivation and performance. Locke (2004) and Latham (2004) suggest that we should keep on searching for those contextual factors that affect the relationship between target difficulty and motivation in order to better understand this phenomenon.

2.1.2. Decision-making theories

As suggested earlier, two decision-making theories can be highlighted for their focus on understanding and explaining the effects of performance targets. These are *prospect theory* (Kahneman and Tversky, 1979) and the *theory of learning from performance feedback* (Greve, 2003). It is important to say that these theories do not refer to performance targets explicitly. The central focus of their research is a reference point or an aspiration level, which is defined as the borderline that differentiate performance success from failure (Lopes, 1987). Due to their similarities, the concept of aspiration level can be compared to the concept of performance target at least in organisational contexts (Wiseman and Gomez-Mejia, 1998). This comparison makes possible the application of decision-making research to target-setting research.

Kahneman and Tversky's (1979) *prospect theory* aims to describe how decision makers decide on which action to take depending on how they perceive their performance to be. The theory suggests that when decision-makers believe they

are in a sure gain context (i.e. their performance is above target), they will behave in a risk-averse way as they do not want to put at risk their gains. On the other hand, when decision-makers believe they are in a sure loss context (i.e. their performance is below target), they will be more willing to take risks as they could benefit from that behaviour by covering their loss.

Greve's (2003) *theory of learning from performance feedback* suggests that when performance is below target level, then problemistic search and risk-taking behaviours increase, which in turn generate greater organisational changes. The opposite will occur when performance is above target level. Problemistic search refers to the type of search that decision makers attempt based on their knowledge of how well they are performing. Greve (2003) argues that the direction of problemistic search depends on managerial judgement. As soon as decision makers find out that their performance is below target, the search for solutions will initially be in "the proximity of the current symptom" (e.g. searching for sales solutions to low sales performance). More complex solutions are likely to be sought once simple search solutions have failed (e.g. searching for product design solutions to low sales performance once sales solutions have been exhausted). Decision makers will evaluate potential solutions to performance problems and more risky alternatives will become more acceptable when performance is below target. Therefore, in general, organisational changes will be less likely to occur when performance is above target, since problemistic search will be at low levels; time dedicated to problem-solving will be less necessary; and managers will be more risk averse.

In short, it can be argued that these two decision-making theories share the idea that performance targets can have two different effects depending on the level of performance obtained by an individual. If an individual's performance is below target, this will positively affect his/her risk-taking behaviours. The opposite will occur if the individual's performance is above target.

2.1.3. Economic theories

Agency theory (Jensen and Meckling, 1976; Eisenhardt, 1989) and *behavioural agency theory* (Wiseman and Gomez-Mejia, 1998) have both explored the effects of performance targets when these are linked to incentive pay.

Agency theory (Jensen and Meckling, 1976; Eisenhardt, 1989) describes the relationship between two parties: principals and agents. The principal's main role consists of supplying capital, bearing risk, designing incentives and delegating work to agents. The agents' main role is to work for the principal, which involves effort and decision-making responsibilities (Eisenhardt, 1989). In organisational research the relationship between principals and agents is normally used to describe the relationship between owners and managers; however, it can also be used to describe the relationship between managers and employees. Both parties are assumed to be fully rational, with well-defined preferences and motivated by

self-interest (i.e. willing to increase their own wealth with the minimal effort). Agents are assumed to be both effort-averse, and risk-averse (i.e. prefer to avoid both work and risk). Principals are considered to be risk-neutral (Eisenhardt, 1989). Under these assumptions, agency theory proposes that the optimal way to align the interests of employees and managers (or managers and owners) is to establish incentive systems that are linked to individual, team and/or organisational performance measures and targets (Baiman, 1982, 1990). According to agency theorists, when incentives, performance measures and targets are used the agency problems are reduced and better organisational performance is achieved (Eisenhardt, 1989).

Behavioural agency theory (Wiseman and Gomez-Mejia, 1998) is an extension of agency theory that incorporates aspects of prospect theory (Kahneman and Tversky, 1979). It challenges the agents' risk assumptions proposed by agency theory and states that agents' risk preferences depend on contextual factors such as the design of incentive systems, the type of performance measures and targets used. In the case of targets, the behavioural agency theory argues that the level of target attainability used for determining incentive pay affects managers' risk-taking behaviours. High incentive-pay performance targets relative to individuals' performance forecasts will make individuals perceive a loss context and this situation will increase their risk-taking behaviours. Similarly low incentive-pay performance targets relative to individuals' performance forecasts will make individuals perceive a gain context and this situation will reduce their risk-taking behaviours. Therefore, this theory proposes that incentive-pay performance targets must be adjusted with performance to ensure that managers face loss decision contexts that will increase their tendency towards risk, as high managerial risk taking is considered to be associated with future increases on organisational performance (Wiseman and Gomez-Mejia, 1998).

In sum, both theories promote the linkage between performance targets and pay. Agency theory suggests that this linkage will motivate the agent to behave in the direction that best suits the principal's interests. Behavioural agency theory suggests that with this linkage agents' risk taking behaviours can be encouraged.

2.1.4. Summary

Overall, these theories have something in common. They all stress the importance of how attainable people perceive their targets to be. Motivation theories suggest that when people perceive their target to be unattainable, this perception affects their motivation in different ways. It may increase it as proposed by goal-setting theory (Locke and Latham, 1990) or it may decrease it as proposed by expectancy theory (Vroom, 1964) and achievement motivation theory (Atkinson, 1974). Decision-making theories and behavioural agency theory suggest that when people perceive their target to be unattainable, this perception affects their risk-taking behaviour by increasing it.

Now that the most important organisational theories have been reviewed, the discussion focuses on research that has empirically investigated the effects performance targets have on managerial behaviour with a special emphasis on those performance targets used in sales contexts.

2.2. Exploring the different effects of performance targets on behaviour

Numerous empirical studies have been conducted in order to examine the impact of assigned targets on people's behaviour. The purpose of this section is to summarise this work. It has been structured as follows. Firstly, the insights extracted from sales management research are reviewed. Secondly, a summary of findings obtained from goal-setting theory studies is presented. It is in this area of research where there has been more activity in looking at the effects of targets and the findings can easily be applied to sales environments. Thirdly, the literature from quality management researchers and practitioners is outlined as it challenges the use of performance targets altogether. As concluding remarks the findings from these literatures are discussed and key gaps that require further research are highlighted.

2.2.1. Sales management research

Research in sales management has found both positive and negative behavioural effects of the use of performance targets in sales environments. The sign of the effects is normally attributed to three factors: (1) target difficulty, which refers to the degree to which the goals assigned by a supervisor are attainable; (2) target specificity, defined as the extent to which the targets are clearly defined by a supervisor; and (3) target participation, which is the degree of involvement sales people have in the target setting process (Locke and Latham, 1990).

Taking into consideration these three factors, most studies look at the effects of sales performance targets on behavioural variables such as: motivation and effort (e.g. Chowdhury, 1993; Fang, Palmatier and Evans, 2004; Winer, 1973; Wotruba, 1989); ethical behaviour (e.g. Schwepker and Good, 1999); or risk taking behaviour (e.g. Gaba and Kaira, 1999). A summary of the studies looking at the impact of performance targets is presented in Appendix A. From this body of research the following insights can be extracted:

▪ The degree of target difficulty that is required in order to generate positive effects on effort seems unclear. This issue reflects the inconsistencies highlighted earlier in Vroom's (1964), Atkinson's (1974) and Locke and Latham's (1990) theories. Some authors suggest that targets need to be difficult in order to increase effort (e.g. Winer, 1973); whereas, other authors

stress that performance targets need to be moderately difficult in order to increase effort (e.g. Schwepker and Good, 2004).

- The work of Chowdhury (1993) has tried to address the inconsistencies around the optimal level of target difficulty by looking at contextual factors that may moderate the impact of targets. He finds that sales people with high self-efficacy may respond positively to highly difficult targets, whereas sales people with low-self-efficacy will respond negatively to highly difficult targets.

- Fang, Evans and Zou (2005) look at another set of contextual variables and find that the effects of target difficulty and specificity depend on the type of strategic goals that the company wants to emphasise (outcome performance vs. behavioural performance). When outcome performance targets (i.e. sales volumes, profits) are the key drivers of a business; then the use of targets that are moderately difficult and specific seems more effective in terms of individual performance. When behavioural performance (i.e. maintaining good relationships with customers, providing timely feedback) is the primary concern of managers; then more easily attainable and non-specific targets (e.g., do your best) seem more desirable. These findings were obtained in an Anglo-Saxon culture (US); however, they might not hold in other cultures.

- Even though the use of specific targets may positively affect effort (i.e. working harder), this effect might not influence individual performance results in direct selling contexts (Wotruba, 1989).

- Participation in target-setting processes increases the accuracy of sales forecasts (Wotruba & Thurlow, 1976).

- Giving information to sales people about how well they are performing against their targets influences their perception of the level of difficulty of the target. Their perception about their targets difficulty subsequently affects their motivation and willingness to exert effort (Chowdhury, 1993).

- Failing to meet a performance target may produce emotional reactions that may negatively affect motivation (Badovick, 1990) and generate unethical behaviours from sales people (Schwepker and Good, 1999).

- The impact of performance targets on sales people risk taking behaviour is unclear. There is research suggesting that when sales people perceive that they are not going to achieve their targets, which will affect their bonus; this situation will induce sales people to opt for high-risk sales prospects (Gaba and Kaira, 1999). However, there is also research suggesting that under those circumstances, sales people will become more risk-averse (Ross and William, 1991).

- When sales people fail to meet their performance targets and sales managers take no actions, performance tends to be lower. On the other hand, managers who work with or coach "no-quota achievers" create better performance. Furthermore, the less leniency sales people are afforded in reaching their targets prior to being terminated, the higher their performance and their income (Schwepker and Good, 2004).

2.2.2. Goal-setting theory research

In addition to the insights extracted from the sales management literature, there are some general findings from the goal-setting theory literature that can also be applied to sales contexts. For example, Latham (2004) outlines the conditions under which the use of performance targets may generate unintended consequences. He also highlights the downsides and risks of using performance targets.

2.2.2.1. When targets may generate unintended consequences

Based on his research and that of his colleagues, Latham (2004) suggests that for specific and challenging targets to be effective the following conditions must exist (see bullet points below). If these conditions are not there, targets may generate unintended consequences.

- Employees have control over the actions associated with their performance targets.

- Employees have the ability and knowledge to attain their targets. If they do not have the ability and knowledge to attain their targets, learning targets or "do your best" type of targets can be used instead of specific outcome targets.

- Employees are committed to attain their targets, especially if their targets are difficult.

- Employees receive feedback on their progress towards targets.

- Employees performing low-complexity tasks that do not require strategy or behavioural routines to be acquired need less involvement in target setting. When complex task are perform then participation in the target setting process is advised. In Latham's (2004) words: "When working smarter rather than harder, when one's knowledge rather than one's effort (motivation) is required [for dealing with complex tasks], participation in target-setting leads to higher performance if it increases the probability of finding an appropriate strategy for performing the task, and if it increases the confidence of people that the strategy can be implemented effectively" (p.128).

- Employees have the resources needed to attain their targets.

- Employees have superiors that take the steps required for removing obstacles that may be in the way for attaining their performance targets.

2.2.2.2.   Downsides and risks of using performance targets

There are also a clear set of downsides and risks of using performance targets that the goal-setting theory literature highlights (Latham, 2004). These are:

- When targets are set for any single dimension of performance, other dimensions will be sacrificed and trade-offs will occur. For example, quantity performance targets must be balanced with quality targets. If not, people may try too hard for quantity at the expense of quality or vice versa.

- Individual targets must be balanced with team or group targets if the tasks of individuals are interrelated. If only individual performance targets are used when teamwork is important; then those who are highly committed to their targets may not help others to attain their targets.

- When there are two or more performance targets, targets conflict may occur and performance on all targets may suffer. In these situations, targets should have a specific weight that gives signals to employees about business priorities.

- Very difficult targets over an extended time period, without sufficient time periods among them, can lead to exhaustion.

- Unethical behaviours can occur if employees are force to attain very difficult targets in punitive environments where target failure is severely judged. On the other hand, if failing to meet a target is seen as a transitory part of a learning process (specially in high-innovation firms), then employees will be more willing to take risks setting challenging targets that will ultimately enhance performance.

2.2.3. Quality management research and practice

The work of quality management consultants and researchers such as Deming (1990) seriously challenges previous studies on the impact of performance targets. According to this work, the use of performance targets based on un-scientific methods and without a road map brings losses to organisational performance. Furthermore, the linkage between targets and incentives is the driver of unintended consequences that will negatively affect performance in the long-term. Instead of using this type of motivation mechanism, quality management authors suggest that good leadership –as opposed to merely supervision or monitoring– should be the main driver of performance in the short-tern and in the long-term.

In particular, Deming (1990) argues that an organisation can attain almost any goal in the short-term but this achievement may compromise its performance in

the long run (e.g. it is easy for a firm that is underperforming to show a profit if it sells off its healthiest operations; however, this action will probably make the situation worse in the long-term). Deming maintains that performance targets negatively affect continuous improvement and that they diminish the level of trust in management.

Despite these criticisms, it is important to note that numerous studies (e.g. more than 500 studies in goal setting theory over more than 30 years) have shown that, under specific circumstances, performance targets increase the performance of organisations. Therefore, as suggested earlier in the text, many authors (e.g. Carson and Carson, 1993) argue that the work of Deming should be complemented with further research on those issues associated with performance targets instead of recommending the abandonment of this managerial tool altogether.

2.2.4. Remarks about the literature

The literature on the impact of sales performance targets is extensive, but it has clear gaps that need to be addressed. One of these gaps is the relationship between performance measures, incentive pay and targets. Most of the literature focuses on the impact of targets assuming that those targets are based on the right performance measures and on the right incentive plans. However, it is well known in the management literature that if the performance measures or the incentive schemes are not appropriate; then, the effects on behaviour and performance might not be as expected regardless of how appropriate the targets might be (e.g. Kaplan and Norton, 1996, 2001, 2004, 2006; Neely, Adams and Kennerley, 2002). In the case of sales contexts, this narrow focus on targets can be particularly dysfunctional.

Sales environments are currently experiencing great transformations (e.g. the complexity of sales roles is increasing, team selling is now a critical sales capability as well as relationship selling, and customers are becoming more and more demanding) (Brown, Evans, Mantrala and Challagalla, 2005). Most of these transformations are not being reflected in the type of performance measures and rewards that managers use to motivate their sales people. Most sales performance measurement and incentive systems still focus on the maximisation of product sales to meet short-term sales targets, and they assume that sales people are still "lone wolves" working autonomously in their own territories (Brown et al, 2005). The reality is somehow different. At present, most sales people work in teams where customer information must be produced and shared. Their roles are increasingly complex with goals that are not only to maximise product sales from a list of assigned customers but also to engage in profitable and satisfactory relationships with existing customers and to identify, attract and acquire new customers with high lifetime value (Brown et al., 2005). This new selling environment requires innovative ways of measuring performance, setting targets and designing incentive plans, which effects are still far from being understood.

Another gap in the literature is the examination of how the target-setting system and its implementation affect sales people's behaviour and ultimate performance. At the moment, the only aspect being researched in the literature is the level of participation of sales people in the process of setting targets. However, there are many other variables that play a role in the process of setting and implementing performance targets. These include the targets communication process; the type of factors taken into consideration in the target-setting process (past performance only, environmental factors, etc.); the level of understanding of the targets by the sales people; the degree of action planning before and after targets are set; stability of performance targets.

A third gap in this area of research is the need to further understand the different factors that affect people's perceptions about how difficult their targets are. As reviewed earlier, there are conflicting results about the most appropriate level of target difficulty. Some studies suggest that better performance is achieved with highly difficult targets (Locke and Latham, 1990); whereas, other studies argue that better performance is achieved with targets that are moderately difficult (Atkinson, 1974). It is important to note that no two people are likely to share the same perceptions about how difficult their targets are. In practical terms, how can management know if the targets they set are highly difficult or moderately difficult if perceptions about the level of target difficulty remain in the eyes of the beholder? One way of addressing this problem is by taking into consideration that people's perceptions about the level of difficulty of their targets can be influenced by numerous factors (e.g. self-efficacy, performance feedback) (e.g. Chowdhury, 1993). Some of these factors can be controlled by management.

The present study aims to shed some light into these gaps in the literature. For that reason, the following sections look in more detail at: (1) the different methods for linking performance targets to incentives and the issues associated with the measurement of performance; (2) the process of setting performance targets; and (3) the factors that may affect people's perceptions about the level of difficulty of their targets;

2.3. Linking performance targets to incentive pay

Performance targets can be used alone or they can be linked to incentive plans as agency theory suggests (Jensen and Meckling, 1976; Eisenhardt, 1989). In sales environments, performance targets are typically linked to incentive pay (Sands, 2000). According to the literature, there are a number of ways in which performance targets can be linked to incentive compensation and each way has its advantages and disadvantages. Management selects the different structures that target-based incentive plans take depending on situational characteristics such as: the strategic business objectives, specific constraints (e.g. sales people's equity perceptions, sales people's earnings security), available information (e.g. on territory sales, sales people's risk preferences) and ability to predict future results,

sales management culture and philosophy (Darmon, 1997; Zoltners, Sinha and Lorimer, 2006).

The different ways in which performance targets can be linked to pay are described here by reviewing the following design options (Darmon, 1997; Locke, 2004; Sands, 2000; Zoltners et al., 2006). Firstly, the achievement of performance targets can be linked to bonus plans, commission plans or both. Secondly, the achievement of performance targets can be associated with a single payment level, with multiple payment levels or it can be linked to monetary rewards using a linear relationship. Thirdly, payments for the achievement of performance targets can be subject to an upper level limit, a threshold, or both. Finally, performance targets can be set for a sales person and the associated rewards can be given not only based on how well the person achieved the targets –as all the previous design decisions assume–, but also on an evaluation of the circumstances under which the sales person achieved his/her targets. These options are not necessarily mutually exclusive as they all tend to be combined in practice. Each of these five design options is described as follows.

2.3.1. Type of incentive plan: Bonuses and commissions

One key decision that must be taken when establishing a linkage between sales performance targets and incentives is whether the payments are going to take the form of bonuses, commissions or a mix of the two (Zoltners et al, 2006). With a bonus plan, each sales person tends to be given a performance target or quota for his territory, and payments begin when the person reaches his or her target or a specific portion of that target (Zoltners et al, 2006). For example, the performance target of a sales person can be to achieve a 10% increase in sales profits of territory A compared to last year's profits. If that target is achieved; then, the person receives a bonus. A bonus is a compensation element that is added to the fixed salary that the sales person receives. Bonuses can be calculated as a percentage of the sales person's fixed salary or as an absolute monetary value.

Commission plans can also be linked to performance targets but their structure is different from the structure of bonus plans. In a commission plan a commission rate is specified for performance above a specific target and this rate is multiplied by the number achieved in the performance measures evaluated, e.g. sales or profit (Zoltners et al. 2006). In the past, it was common to find organisations that had sales people on commission only, with no additional fixed salary. This type of compensation scheme was found to be dysfunctional for organisations and at present is very rare to find firms using it (Litzky, Eddleston, Kidder, 2006). A common feature of commission-based incentive plans is a fixed salary component that is smaller than the salary component of bonus-based incentive plans (Zoltners et al. 2006).

2.3.2. All or nothing, multiple payment levels and linear relationships

The achievement of performance targets can be linked to a single payment, to multiple payments or it can also be linked to pay based on a linear relationship (Locke, 2004). The first option consists of linking a single performance target to a monetary reward (usually a bonus calculated as a percentage of salary) if it is attained and to no monetary reward if it is missed. Figure 6 shows a bonus example of this first option. This method strongly motivates sales people to reach the target since a portion of their total compensation is at risk. However, this method may be the trigger of unethical behaviour (e.g. low quality of relationships, high risk-taking, data manipulation) as sales people will be likely to do what it takes to get their bonus. Another disadvantage of this method is that it might be considered unfair and demoralising by those individuals whose results are very close to the target but not exactly on target. This type of method may be optimal for environments where ethical norms and standards are clearly communicated and consistently enforced; and where performance targets are easy to set (i.e. forecasting tends to be accurate).

Figure 4. Example of an "all or nothing" type of linkage
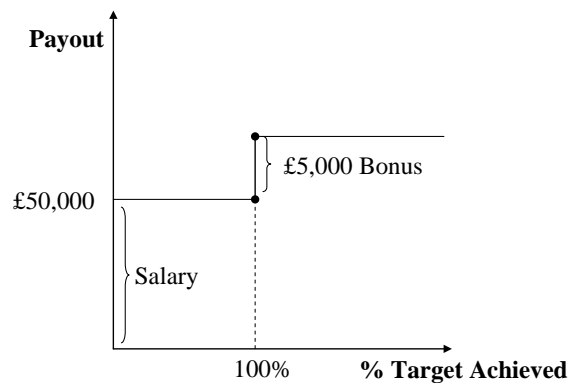
Example: A sales person is paid a salary plus a bonus of 10% of his/her salary upon target achievement.

The second option consists on linking multiple levels of a performance target to multiple payment levels (these payment levels can be determined using bonuses or different commission rates). This method establishes that the higher the target level attained, the higher the monetary reward received. Figure 7 shows a bonus example following this method. On the one hand, with this type of linkage there is less temptation for sales people to cause unethical behaviours as their different levels of achievement will be rewarded. On the other hand, since the different levels of achievement are rewarded, sales people may be less motivated to try for the target with the highest level. This method normally includes a minimum

threshold below which performance is considered inadequate and no payment is provided.

Figure 5. Example of a step linkage
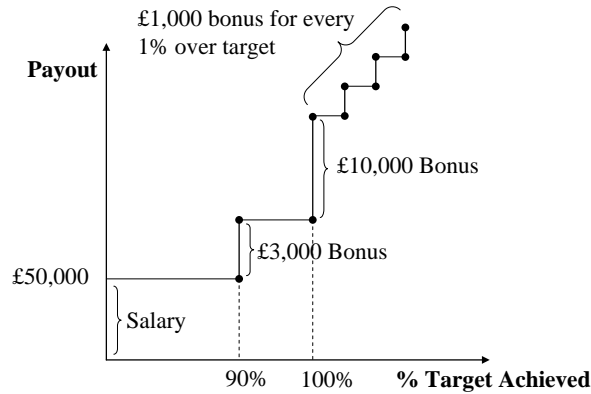
Example: A sales person is paid a salary plus multiple bonuses when several target thresholds are achieved:
• £3,000 bonus at 90% of target
• £10,000 bonus at 100% of target
• £1,000 bonus for each 1% above target

The third option for linking a performance target with pay consists of the use of a mathematical linear function that relates the different levels of target achievement with the different monetary rewards. In this method, the sales person gets paid exactly for what s/he achieves. An example of this method is provided in Figure 8. This type of linkage further decreases the temptation to cause unethical behaviours and does not affect motivation for reaching higher levels of performance. However, this way of associating performance targets with compensation may be costly for organisations as no payment limits are established.

Figure 6. Example of a linear relationship
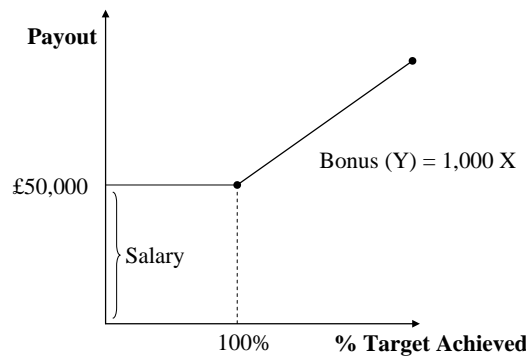
Example: A sales person is paid a salary plus a bonus calculated using the formula: $Y = 1,000 X$. In this formula "Y" is the bonus and "X" is the % of above target achievement. Thus if the sales person achieves 110% of the target, then the s/he will received a bonus of £10,000.

Zoltners, et al. (2006) extend this third method by suggesting that apart from using a linear function for linking a target with a bonus, another three types of functions are normally used in combination with linear functions. These are progressive functions, regressive functions and mixed functions. A progressive function pays a higher bonus as the percentage of target achievement increases. A regressive function pays a lower bonus as the percentage of target achievement increases. A mixed function combines both higher and lower bonuses as the level of target achievement increases. These functions are represented in Figure 9.

Figure 7. Regressive, progressive and mixed relationships
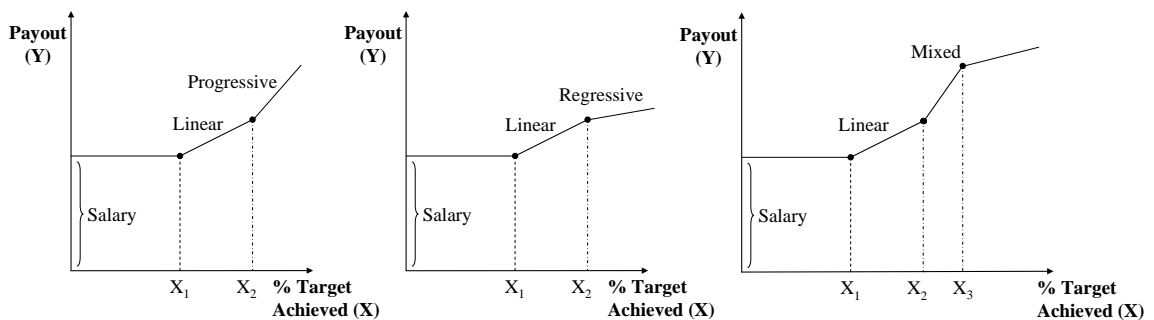
2.3.3. The use of thresholds and caps

The relationship between performance targets and pay can be subject to the achievement of a specific threshold, under which performance is considered to be unacceptable. This threshold can be established at 100% of target achieved or at a lower percentage of target achieved (e.g. 90%). A threshold is always used with bonus plans. In the case of commission plans, sales people can start getting paid from "the first pound" sold. Industries that tend to use commission plans that pay from the first pound are, for example, insurance, stockbrokerage and real state (Zoltners, et al, 2006). The relationship between performance targets and incentives can also have an upper level limit, commonly known as a *cap*, which limits the amount of money that a sales person can earn in a single period or for a single performance target. Caps can be expressed as certain pound amount, as a percentage of base pay, or as a percentage of target achieved. The use of caps can have serious effects on sales people motivation and they can cause unethical behaviours such as holding sales over to the next target period (Zoltners, et al., 2006).

2.3.4. Before the fact or after the fact linkage

Finally, a performance target can be linked to pay *before the fact* or *after the fact* (Locke, 2004). *Before the fact* refers to performance targets that are set and linked to a specific amount of money before a sales person takes any action towards

achieving those targets. All the different design options reviewed in previous sections are linkages that occur *before the fact*. A linkage that occurs *after the fact* refers to a monetary reward that is decided after the sales person has taken all his/her actions towards the achievement of a target. In this case, the results of his/her performance are evaluated taking into consideration the full context in which the target has been pursued. This method is considered to be more flexible and comprehensive. However, it may be very time consuming for management and to a certain extent subjective since reward decisions are based on management judgement.

2.4. The relationship between targets and performance measures

Performance targets are intrinsically related to performance measures. Assuming that performance targets are set appropriately, performance measures need to be the "right" ones –i.e. they should be measures that adequately identify and assess the drivers of business success– in order to generate the expected behaviours. As suggested earlier, researchers have mainly investigated the impact of performance targets on behaviour without questioning the validity of the performance measures associated with targets (see for example Schwepker and Good, 2004; Winer, 1973; Wotruba, 1989), which is a clear gap in the literature. A variety of measures can be used to assess the performance of a sales function; however, not all of them are appropriate for target-setting and incentive purposes (Zoltners, et al. 2006).

Before going into the type of performance measures that can be adequate for target-setting and incentive purposes, let us focus on some issues that are generic to all performance measures.

2.4.1. Common issues associated with performance measures

As suggested by Franco-Santos (forthcoming), it is commonly assumed that when performance measures are used, efforts and resources are more rationally managed and, as a result, organisational success is more likely to occur. However, a number of issues associated with performance measurement affect the validity of this assumption. These are:

- *The illusion that performance measures can be perfect representations of managerial performance*. Managerial performance has multiple dimensions, some of which are not observable (Feltham & Xie, 1994). When selecting performance measures, the focus can only be on those dimensions that are observable, which means that there are dimensions of managerial performance that are left unmeasured. In addition to this, there is a cost associated with the design and implementation of performance measures. Those measures that are considered costly will tend to be avoided. As a result, the performance

measures that are finally used in organisations are imperfect representations of the complex actions that generate managerial performance. The problem occurs when organisations consider these imperfect performance measures as true managerial performance.

- *The use of the same performance measures for different purposes.* Organisations tend to use the same performance measures for both informational and motivational purposes. When used for informational purposes, performance measures provide insights that facilitate decision-making and generate improvements (e.g. in reporting and process improvement). When used for motivational or control purposes, performance measures affect the behaviour of those employees that are being measured (e.g. in incentive plans). These two measurement roles are not always compatible (Austin, 1996). Research has found that the more performance measures are used for control purposes the more subject they are to corruption pressures and the more apt these measures are to distort and corrupt the performance they are intended to monitor (Campbell, 1979). If performance measures used for control purposes are distorted their use for decision-making or improvement becomes an issue (i.e. little can be learned from data that has been previously manipulated).

- *Correlation issues when multiple measures are used.* Many organisations are now using multiple measures for evaluating and rewarding their employees' performance. It may occur that some of these measures are negatively correlated. If that is the case (e.g. innovation measures tend to be negatively correlated with profits in the same incentive period), employees may feel demoralised, as they cannot succeed in both measures at the same time. In this situation, there is a inbuilt problem in the measurement system and the performance evaluation results do not really reflect the employees' true performance. The consequence may be that employees are tempted to exhibit unethical behaviours such as "window dressing" or "performance padding" (Meyer and Gupta, 1994).

- *The diminish variance of performance measures.* Over time, performance measures lose variability and the ability to discriminate between good and bad performance. This loss in variability can be caused by four different factors (Meyer and Gupta, 1994): positive learning, perverse learning, selection or suppression. It can be due to positive learning as people learn how to improve their performance in whatever they are being measured on. It can be due to perverse learning or gaming as people learn how to increase the results of a measure without improving the performance that is sought. It can be due to selection as organisations learn either positively or perversely and decide to replace low performers with high performers. Finally, it can be due to suppression of performance measures, which occurs when performance differences cannot be diminished by either improvement, the appearance of improvement, or selection. What this shows is that the usefulness of a performance measure decays over time.

Besides these drawbacks of performance measures, organisations rely on them hugely for monitoring their success and for rewarding their employees (Neely, 2002). However as suggested earlier, not all performance measures are appropriate for compensation and target-setting purposes. In the following two sections; firstly, the type of performance measures that tend to be linked to compensation and targets are reviewed; secondly, the key factors that affect the effectiveness of performance measures is reviewed.

2.4.2. Behavioural-based versus outcome-based measures

Some authors have clearly distinguished between two types of measures that are used in sales contexts (e.g. Anderson and Oliver, 1987; Cravens, Ingram, LaForge, and Young, 1993; Eisenhardt, 1985): *behaviour-based* and *outcome-based* measures. At present, most organisations use both types of measures in order to influence behaviour and performance (Zoltners, et al., 2006). *Behaviour-based measures* have low measurability and are oriented towards the longer term as. their effects may not be fully realised until several years have past. These characteristics make them less appropriate for target-setting purposes as specific and accurate targets are difficult to estimate. Examples of behaviour-based measures are: sales force product knowledge, relationship management and selling skills. Behavioural-based measures require high levels of managerial monitoring and tend to be linked to fixed salary compensation. *Outcome-based measures* have high measurability and are oriented towards the short-term as their impact can be fully realised during the incentive period. Some examples of these measures are: sales revenues, profits, market share and sales growth from existing customers. Outcome-based measures require lower levels of managerial monitoring, are more appropriate for target-setting purposes and are linked to incentive compensation.

2.4.3. Factors that affect the effectiveness of a performance measure

The selection of the most appropriate performance measures for compensation purposes is a critical decision managers must make. As mentioned earlier if a compensation system is based on the wrong measures unexpected behaviours may occur, which might be detrimental for organisational performance. There is an extensive body of research that has looked at the key factors that influence the effectiveness of performance measures. Some of these factors apply to the measures themselves –that is the case of the level of performance measures informativeness, controllability, objectivity, alignment, agreement, clarity, validity, reliability and fairness. Others apply to the complete set of performance measures that is used to determine pay –that is the case of performance measures quantity and completeness. All these factors are reviewed as follows.

- *Performance Measures' Informativeness.* According to agency theorists, the most important aspect to take into account when selecting measures of performance for reward purposes is the informativeness principle (Holmstrom, 1979). This principle states that a measure might be linked to pay if it provides information about the dimensions of managerial action that the manager (or owner) wishes to motivate (Indjejikian, 1999; Ittner, Larcker and Rajan, 1997).

- *Performance Measures' Controllability.* Agency theorists have also suggested what is known as the controllability principle (e.g. Demski & Feltham, 1978). This principle suggests that an individual should be evaluated and rewarded by a performance measure, if he or she can control or significantly influence that measure (Indjejikian, 1999).

- *Performance Measures' Congruence or alignment.* Another aspect that has been examined by agency theory is the importance of performance measures' congruence or alignment. Compensation schemes are designed to align employees' interests with managers' interest (also managers' interest with owners' interests). In practical terms, this means that the performance measures used for determining pay should be the ones that encourage the type of behaviours that are required to achieve the organisation's strategic objectives. In his work, Kerr (1995) presents numerous examples where the importance of performance measures alignment has not been taken into consideration and how this problem has resulted in unexpected consequences.

- *Performance measures objectivity.* Research suggests that the use of subjective performance measures is associated with performance evaluation bias; as a result, for compensation purposes the use of objective performance measures is recommended (e.g. Ittner, Larcker, and Meyer, 2003; Moers, 2005; Prendergast, and Topel, 1993). However, some authors have found that subjective performance measures are appropriate for complementing objective measures, even though in order to be perceived as effective they need to be employed in an organisational context where there are high levels of trust between managers and employees (e.g. Gibbs, Merchant, Van der Stede and Vargus, 2004).

- *Performance measures agreement.* It is critical that management defines and designs performance measures that are relevant for the user. For that reason, it is important that the user agrees a performance measure before it is linked to his/her incentive plan (Manoochehri, 1999).

- *Performance measures reliability.* This characteristic refers to the extent to which a performance measure is repeatable (e.g. whether two observers would observe the same values at the same time) and its data is error-free and unbiased (Busby and Williamson, 2000).

- *Performance measures clarity and communication.* If performance measures are to be use effectively, users need to clearly understand them. Before linking any new performance measures to an incentive system, the user has to be educated to understand: What is the new measure? What does it measure? Why is it needed? How does the measure impact him/her? How do his/her decisions and actions impact the new performance measure? How can s/he control the performance and the outcome? The user's knowledge should not be taken for granted (Manoochehri, 1999).

- *Performance measures review.* In order to keep the performance measures relevant and effective, they should be reviewed periodically. Performance measures should evolve to reflect the changes and organisation goes through (e.g. strategic changes, changes in structure, changes in technology, etc.) (Bourne, Neely, Mills, Platts, Wilcox, 2000; Kennerley and Neely, 2002).

- *Performance measures fairness.* Performance measures must be perceived as fair by their users. In some context the same performance measure may favour some people and not others. This issue should be avoided if the right behaviours are to be encouraged.

- *Performance measures quantity.* Performance measurement research has found that the number of measures included in a compensation system should be kept to a minimum (e.g. Meyer and Gupta, 1994). The work of Miller (1956) tends to be used to prescribe that the most appropriate number of measures to use for compensation purposes should be five plus/minus two (e.g. Simons, 2000). This is because individuals can remember, recall, and work creatively with seven bits of information. With 10 or more bits of information, individuals suffer from information overload. Moreover, if people are asked to do too many things concurrently, no single initiative will receive enough attention to assure success (Miller, 1956).

- *Performance measures completeness and validity.* This characteristic can be described using two different perspectives. From the point of view of a single performance measure, this characteristic refers to the extent to which a performance measure represents the construct of interest (Busby and Williamson, 2000). However, this characteristic can also apply to the set of performance measures that aim to assess managerial performance. From that point of view, this characteristic refers to the extent to which the set of performance measures is able to capture the different dimensions of managerial performance (Austin, 1996).

Having reviewed the factors that affect the effectiveness of performance measures, the next section examines the issues associated with the target-setting process..

2.5. Issues associated with target-setting processes

There is limited research looking at the specific issues associated with the process of setting targets (Kaplan and Norton, 2001). In this section, we summarise the work that, to our knowledge exists in this particular area. The section is structured as follows. Firstly, the research conducted in sales environments is presented. Secondly, the insights extracted from decision making research are highlighted. Finally, typical issues associated with establishing targets obtained from public sector and economic research sources are outlined.

2.5.1. Setting targets in sales environments

Developing a target-based reward plan is a complex and challenging management task. For instance, Darmon (1997) suggests that in order to set proper quotas and rewards, management needs to secure, collect and process critical information (e.g. sales people's territories sales response functions, sales people's risk-taking preferences) that involves substantial costs (see Table 1). Because of the costs involved, it is important that the benefits obtained from using target-based reward systems exceed the costs of developing them. As it has been mentioned in previous sections, the development of a target-based reward system comprises three key elements: an incentive plan structure, a set of measures used to assess performance and a set of targets that establish the level of the performance measure that is considered successful. The first two elements have already been explored. Let's now focus on the process typically used for setting performance targets.

Table 1. Costs associated with setting targets in sales functions (adapted from Darmon, 2001)

Type of cost	Cost
Fixed costs (over a target period)	▪ Costs of the managerial and administrative time spent devising the structure of the target-based reward plan. ▪ Costs of setting up support for administering the plan (computer time, software development, clerical work, etc.). ▪ Non-variable costs for collecting the data for setting up the target-based reward plan. ▪ Costs for processing the data for determining targets and rewards. ▪ Costs of management and sales people's time for pre-testing the plan. ▪ Costs of management and sales people's time for revising the plan. ▪ Costs of the managerial time for communicating and explaining the plan to the sales force. ▪ Costs for evaluating the target-based reward plan structure performance.
Variable costs (according to sales force size)	▪ Costs of sales people's time for providing the data that will be used for target-setting. ▪ Costs of sales people's time for having the plan explained and for learning it. ▪ Costs of managerial and sales people's time spent discussing and negotiating target issues. ▪ Costs of managerial and sales people's time spent for following up target results. ▪ Costs of managerial time spent providing feedback on target results.

Type of cost	Cost
	▪ Costs of managerial and administrative time for implementing the target-based reward plan and for controlling its performance.
	▪ Opportunity costs of possible misperceptions of the target-based reward plan by some sales people.

There is a dearth of information in the academic sales and marketing literature on the details of the process of target setting. Most of the work conducted in the area only takes into consideration the level of participation of sales people in the process of setting targets (e.g. Wotruba and Thurlow, 1976). Based on anecdotal evidence from the literature and our own experience of practice, however, it can be argued that targets are set normally following the process described in Table 3.

Table 2. Typical target-setting process (for one target period)

Steps	Description
Step 1	▪ Based on the strategic objectives that the organisation wants to achieve in the area of sales several performance measures are selected (note: these measures rarely change from year to year) and these measures are linked to pay following a specific structure.
Step 2	▪ Data is collected regarding the performance measures selected and feedback on issues associated with the performance measures is also obtained from sales people.
Step 3	▪ Data is processed and analysed in order to calculate performance measures results.
Step 4	▪ Forecasting analysis take place and a forecast value for each performance measure is obtained.
Step 5	▪ Based on the forecast value obtained for each performance measure a performance target is established and communicated to management.
Step 6	▪ Managers discuss the selected targets with their sales people in order to reach an agreement. In some organisations, this step is avoided by management and performance targets are just given to sales people without previous negotiation and agreement.

Due to the scarcity of sales and marketing research looking at the specific process that companies follow for setting sales people's performance targets, we turn our focus to work conducted by decision-making researchers on establishing performance aspiration levels.

2.5.2. Setting targets: Insights from decision-making research

As stated previously, decision-making research does not mention the concept of performance targets explicitly. Research in this area uses the term *reference point* or *aspiration level*. An *Aspiration level* has been defined as "the level of future performance in a familiar task which an individual […] explicitly undertakes to reach" (Frank, 1935) or "the borderline between perceived success and failure and the starting point of doubt and conflict in decision making" (Greve, 2003, p. 39, based on the Lopes, 1987). An *aspiration level* in a managerial context can be considered a similar concept to the one of a performance target as a performance

target is one of the reference points managers use to differentiate good from bad performance.

2.5.2.1. Historical and social performance targets

According to Greve (2003) the most typical aspiration levels are generated in two ways. These are *historical* and *social aspiration levels* or targets.

Historical targets are based on past performance information. "Past performance is an indicator of how well the organisation can perform and can easily become a standard for how well the organisation should perform" (Greve, 2003, p. 42". Historical targets rely on internal information generated by the organisation, which makes them easier to understand by management. They are generated based on past performance plus or minus a specific percentage which is decided based on new organisational information (e.g. an increase in potential customers, problems in the production line, etc.). They are most useful when external sources of information are unavailable, unreliable or perceived as irrelevant. They have good forecasting properties when the organisation operates in environments where uncertainty is low (i.e. the performance of past years will not be severely affected by environmental changes). However, one key drawback is that these targets can cause managers to be content with performance that over time is lower than that of comparable organisations.

Social targets are generated using information on other organisations that are viewed as comparable to the focal organisation (Greve, 2003). They require management to choose a suitable reference group and to observe and collect information on the performance of that reference group. These types of targets are most useful when organisations operate in environments where uncertainty is high and past performance is not reliable for predicting future performance. One good example of this is the oil industry, where performance is highly affected by oil price movements. The main weaknesses of social targets are that they are unable to account for specific differences in capabilities or niches that the organisations being compared might have; and that the information they are based on might not always be reliable and valid as management has little control over it (Greve, 2003).

Regarding management preferences for either historical or social targets, research has found that this preference depends on the following factors: (1) the level of management business experience and tenure (i.e. the more management experience and tenure, the less management makes use of social information); (2) the maturity of the organisation and the type of environment the organisation operates in (i.e. the higher the uncertainty, the more use management makes of social targets); and (3) the availability and validity of information (i.e. the more valid information available, the more use management makes of social targets) (Greve, 2003).

Research has suggested that historical and social information can be combined in order to create a single target (e.g. Cyert and March, 1963) or multiple target levels that simultaneously and jointly affect behaviour (Greve, 1998). For instance, March and Shapira (1992) argue that two different target levels can be established: one that can focus attention on survival (i.e. if performance falls below this target the survival of the organisation might be at risk) and another one that can focus attention on improvement. For example, an organisation with a performance similar to that of their competitors might pay attention to an established social target, while an organisation close to failure would pay attention to an established survival target (Greve, 2003).

2.5.2.2. Biases during the target-setting process

Greve's (2003) work also highlights two types of bias that may appear during the target setting process: On the one hand, the information used for generating targets may be biased. In the case of social targets, for example, information tends to be more readily available for high-performing organisations or for publicly quoted organisations; thus, important information from organisations that are not high-performers or those that are privately owned may be omitted from the target setting analysis. Another information bias may occur when managers are selecting the organisations they want to compare their performance against. Some organisations may choose to compare themselves against other organisations that have similar performance, whilst other organisations might prefer to compare themselves against high-performing organisations or against low-performing organisations.

In the case of historical targets, the data used for generating the targets might be based on a small number of periods, as management tends to have a short-term view of performance (e.g. the last two years). Moreover, management tends to perceive and treat differently high past performance information and low past performance information (Greve, 2003; Meindly and Ehrlich, 1987; Salancik and Meindl, 1984). Managers tend to associate high performance with their internal actions and decisions; whilst they tend to associate low performance with environmental conditions. For that reason, when setting targets managers tend to believe that only high performance is accurate and they have the tendency to assign greater weights to this type of performance information than to less favourable past performance information.

On the other hand, biases can also be introduced when the information used for target setting is ill processed or analysed. For example, the wrong forecasting techniques may be used or the information may be processed in a way that always leads to either higher or lower targets (e.g. when managers are driven by self-improvement beliefs and they always add a specific percentage to the forecasting figures regardless of the organisation's conditions (Lant, 1992)).

2.5.3. Setting targets: Insights from public sector and economic research

The UK public sector has been using performance targets for many years now. During this time, researchers have identified critical problems associated with the process of setting effective performance targets. According to Hood (2006) there are at least three major problems related to target-setting processes:

- One is a problem known as the *ratchet effect* (e.g. Bain, Keren, Miller and Thornton, 1987; Brown, Miller and Thornton, 1994). When performance targets are based on last year's performance only, the people that have to deliver those targets tend to restrict their performance to well below their possibilities. A clever individual under these circumstances knows that if s/he performs extremely well this year, his/her targets will be increased for the following year and perhaps then he will not be able to reach them as well. This problem causes performance to become mediocre and not excellent.

- A second problem is the one known as the *threshold effect*. Some organisations apply a uniform output target to all units (e.g. 10% increases for all sales territories). This method of setting targets does not motivate people to perform at their best. It does not take into consideration the different potentials of each unit and this issue may encourage top performers to reduce the quality or quantity of their performance to just what the target requires.

- A third problem refers to the type of data used for setting targets. If performance results are manipulated or distorted throughout the performance measurement process, then the performance targets established will be flawed. This will generate the typical effect of "hitting the target and missing the point" (Hood, 2006, p. 516).

2.5.4. Setting targets: Insights from quality management research and practice

According to quality management researchers and consultants, the main issue associated with targets is that they can function only as well as the system allows them (Gregory, 2007). Deming, for example, suggests that "95% or more of variation in performance is in the process or system[2]" (Seddon, 2003, p. 35).

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[2] A process "can be defined as a set of causes or conditions that repeatedly come together to transform inputs into outcomes. The inputs might include: people, materials, or information. The outcomes include: products, services, behaviour or people" (Nolan and Provost, 1993, p. 2). A system is "an interdependent group of items, people, or processes with a common purpose" (Nolan and Provost, 1993, p. 2)

Thus, when managers focus on the control and motivation of employees' performance by means of performance targets and incentives, they are only working on 5% of variation, which is an important waste of management resources. According to Deming (1990), the best way to solve the problem is to improve the system by finding out where the variation is coming from and how it can be decreased. For succeeding in this process, leadership skills are crucial.

Understanding the concept of variation in organisational contexts is critical for Deming and his followers. There is variation in all aspects of organisational life (Nolan and Provost, 1993). Managers make constant decisions based on the interpretation of the variation they encounter. For example, if there is a decrease in sales for two months in a row; then, managers may think: Does the data indicate a trend? What actions should be taken? What is this variation telling me? It is vital that management understands some of the basic statistical concepts associated with variation (Deming, 1990). They need to be able to differentiate between *common* and *special causes* of variation (Shewhart, 1931/1980). *Common causes* are causes that are inherently part of the process (or system) hour after hour, day after day, and affect everyone working in the process. *Special causes* are causes that are not part of the process (or system) all of the time or that do not affect everyone, but arise because of specific circumstances (Nolan and Provost, 1993). Common and special causes in a process or system can be identified with the help of a control chart[3] (Shewhart, 1931/1980). If a process only has common causes affecting its performance then it is said to be a stable process, which facilitates the development of predictions about future performance. When a process is said to be unstable (has common and special cause affecting performance) its performance becomes unpredictable.

The use of variation analysis as suggested by Deming (1990) contrasts with the use of performance targets as suggested by authors such as Locke & Latham (1990) (see Table 1). Performance targets reflect variation but this variation is interpreted as "good" (i.e. performance above target) or "bad" (i.e. performance below target). The "good" or "bad" interpretation of variation tends to form the basis for establishing rewards or control actions, but does not provide useful information for improvement.

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[3] A control chart is the means to operationally define the concept of a stable process. It consists on three lines and points plotted on a graph (see figure 2). The x-axis of the graph can indicate a time line or as in the case of Figure 2, the performance results of each individual. The y-axis of the graph indicates the results of the performance measure being plotted (e.g. sales volume). The centreline tends to represent the average of the data. The other two lines represent the upper and lower limits of control. Variation above or below these limits signals special causes. Variation within the control limits signals common causes (Deming, 1990; Shewhart, 1931/1980).

Table 3. Different interpretations of variation (adapted from Nolan and Provost, 1993, p.3)

	Variation that indicates "good" or "bad" performance (e.g. Locke and Latham, 1990)	Variation that results from common and special causes (e.g. Deming, 1990)
Focus	Outcomes of the process.	Causes of variation in the process.
Aim	Classify outcomes as acceptable or not.	Provide the basis for action on the process.
Basis	What the customer wants or needs.	What the process is actually delivering.
Methods	Specifications, budgets, forecasts, numerical targets, other tools for judging performance.	Control charts.

An example extracted from Nolan and Provost (1993, p. 6-7) helps to better illustrate the two ways of interpreting variation and their effects:

> A marketing manager establishes a forecast of sales for three regions. Each regional sales manager uses this forecast to set targets for each of the sales people under his supervision. Each sales person receives a sales bonus of 1% of his or her salary for each percentage point that sales exceeded the target. The Figure below shows the sales average for the first two quarters per individual. The sales are expressed as a percent of their targets. All sales people in region 1 exceeded their targets so they all received their bonuses. In region 2, no one received a bonus. In region 3, four out of ten received a bonus. The bonuses were distributed based on the comparison of the sales results to the target derived from the sales forecast. This analysis did not take into account the variation among the sales people that was attributable to the system.

Figure 8. Sales results versus sales targets
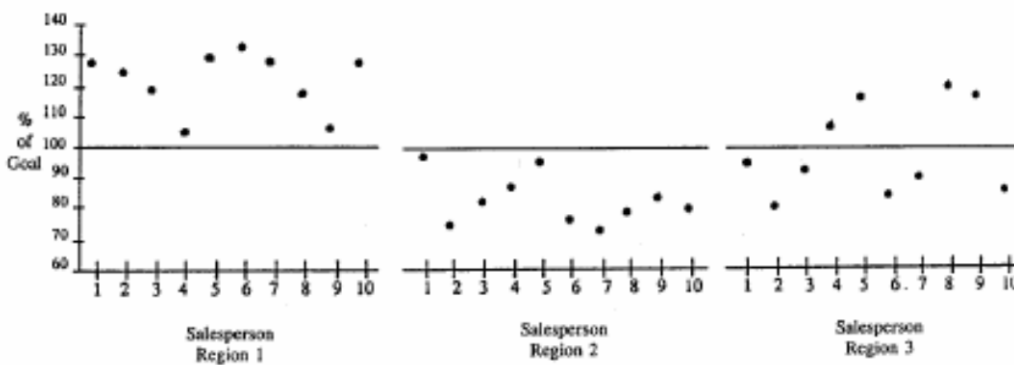
> The figure below shows the use of control charts to analyse the performance of the salespeople. (The width of the control limits depends on the quarter-to-quarter variation in sales for each person within a region). In region 1, the sales for two sales people were below the lower control limit. This indicates that their performance was worse than would have been expected from the system. Is the responsibility of the sales manager to determine what the special cause was and to provide leadership to remove it? The special cause might or might not be within the control of the individual sales person. Those below the control limit might need training, or they might not be suited for work in sales.

Figure 9. Control charts for sales results
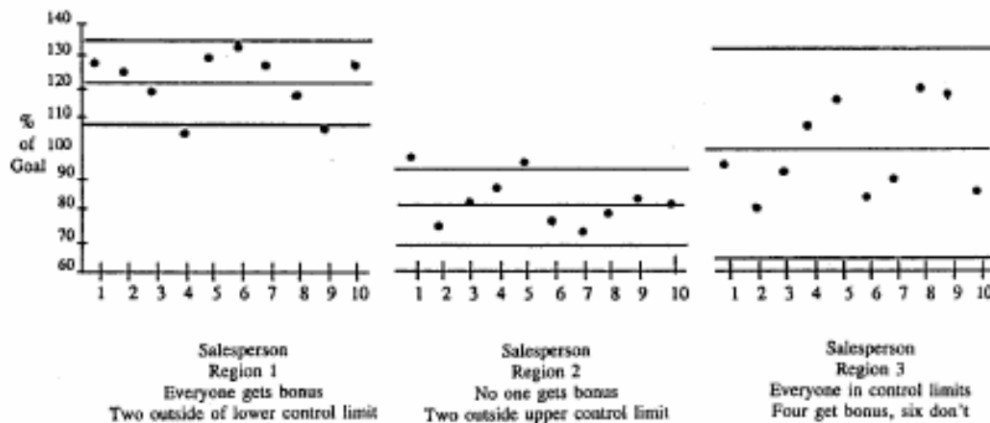
Using a control chart to analyse the performance of salespeople allows the sales manager to determine which of the sales people are performing in the system and which might need special attention. No such information is obtained when the sales data are compared to the target (see Figure 8). In region 3, no one was outside the control limits indicating that the variation among sales people was due to common causes and not to the individuals. It would have been a mistake of the sales manager to try to use these sales results to rank or reward their sales people.

Understanding variation is key to understanding performance. It assumes that some differences in performance are as a result of pure chance. When we use targets to set bonus levels, we must always understand and accept this random element. However, if we don't have a bonus level set, we will find that we have made a change to the process and we may find ourselves in the situation where the whole level of performance is reduced right across the sales force.

Now the research on target-setting processes has been reviewed, we turn our attention to the factors affecting people's perceptions of the level of difficulty of their targets.

2.6. Factors affecting people's perceptions of target difficulty

The level of target difficulty has been found to be a key dimension influencing the effectiveness of performance targets as it has a direct impact on people's expectancy of success (Chowdhury, 1993; Garland, 1984; Motowidlo, Loehr and Dunnette, 1978). The level of target difficulty is based on people's perceptions. Given the same performance target, some people may perceive it to be extremely high; some people may perceive it to be moderately high; and others may perceive it to be low. These perceptions depend on a variety of factors, which can be individually based –i.e. depend on the personal characteristics of the individual

that needs to reach the performance targets– or organisationally based –i.e. depend on the managerial practices that a company employs. To our knowledge, little research has explored these factors. The work of Chowdhury (1993) has looked at the effects of two different factors, one individual factor –self-efficacy– and one organisational factor –performance feedback received from the supervisor– on people's expectancy of success but not on the level of perceived target difficulty. Therefore, there is a need for further research to explore this gap in our knowledge.

2.7. Summary

In this section we have highlighted the results from previous research looking at the impact of performance targets. We have highlighted three gaps in the literature that need further investigation. These are:

1) the interrelations between performance targets, performance measures and incentive pay;

2) the development and implementation of performance targets; and

3) the factors that influence people's perceptions about the level of difficulty of their targets.

We have also reviewed other areas of research including compensation, performance measurement and organisational learning to help us address the gaps we found in the literature.

The next section presents the research methods used in this study and describes both the case study methodology and the survey we undertook.

3. Research methodology

The main purpose of this research is threefold:

- To investigate the effects of sales performance targets in relationship with incentive pay plans and performance measures.

- To search for key issues associated with the process of setting sales targets.

- To examine how specific organisational factors affect sales people's perceptions about the level of difficulty of their targets.

In order to address these objectives two different research methods have been employed in parallel. These research methods are case study and a survey research. Each of these methods is now described in turn.

3.1. Case study research

The objectives of the case study research have been to better understand the sales performance targets, measures and incentives that the selected companies use; the process these companies follow for setting their performance targets; and the effects that sales people believe performance targets, measures and incentives have on behaviour.

Four different case studies were conducted in the UK between September 2006 and February 2007. Organisations were selected mainly based on: (1) their industry (high volatility vs. low volatility) as this was considered a key factor that affected the target-setting process (Greve, 2003); and (2) based on the size of their sales force –that is sales forces with less than 30 sales representatives due to a research constraint which was limited monetary resources. A case study protocol was produced to guide this process (see Appendix B). In each company, we interview 6 to 7 people belonging to the different levels of the sales function (sales director, sales managers and sales representatives) and those in charge of setting the performance targets for the sales force.

In total we interviewed over 26 people with each interview lasting for about 1.5 hours. The information recorded from each case was analysed using qualitative data analysis –that is content analysis– in order to identify key aspects of the organisation's target setting process, beliefs and consequences of the use of performance targets. Then we compared our findings across cases. As far as was

possible, two researchers conducted the cases and analysed the results separately. Then, we compared and cross-checked their findings to enhance the reliability of the study. Table 4 introduces a summary of key aspects of each of the four case study companies[4]; Table 5 gives a brief description of the type of incentive pay, performance measures and targets used by each company. Table 6 reviews the target setting processes developed by each company.

Table 4. Characteristics of case study companies

Case study	Sales force size	Level of industry volatility	Number of interviews conducted	Secondary information/ evidence provided
High Street Bank	28 sales reps.	High	7	Yes
Media Company	30 sales reps.	High	6	Yes
Cement Company	25 sales reps.	Low	7	Yes
Gas Company	26 sales reps.	Low	6	Yes

Table 5. Incentive pay structure, performance measures and targets of case study companies

Case study	Brief description of incentive pay structure, performance measures and targets
Media Company	▪ Three output measures are used to assess performance at team level and to determine bonus payments. These measures focus on sales revenues and volume. They assess performance per brand and at national level. ▪ In addition to the three output performance measures, the sales department uses another set of output performance measures (e.g. number of existing clients, drop offs, etc.) and behavioural performance measures but these are not linked to pay. ▪ Bonus is paid taking into account results against targets. Everyone within the sales team is entitled to have a bonus. A portion of the bonus is paid monthly and the other portion is paid quarterly. Sales people's bonus is based on team and brand performance. The size of the bonus goes from 10% to 60% of salary depending on the sales role and on the person. ▪ Together with the bonus scheme, the company conducts periodic performance contests that reward creativity. ▪ Targets are set for the three output measures linked to incentive pay.

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[4] Due to confidentiality agreements little information about each of the case study business and operations can be provided.

Case study	Brief description of incentive pay structure, performance measures and targets
Gas Company	▪ Bonus is paid taking into account results against targets. Everyone within the sales team is entitled to receive a bonus. Bonus targets are annual but payments are made twice a year. ▪ Performance is assessed at two different levels: organisational and individual. Organisational performance is measured in financial terms only (i.e. profit) and has a weight of 40% of the bonus. Individual performance is measured taking into consideration several dimensions of performance; even though the majority of them are also financial. The individual performance measures have a weight of 60% of the bonus (it is important to note that all the individual performance targets need to be met to a certain extent in order for the 60% of bonus to be paid out). ▪ The company also has a performance development system which is linked to base pay. Some of the measures included in the performance development system are duplicated in the bonus scheme. ▪ Together with the bonus scheme, the company also has sales people's recognition plans and performance contests. ▪ The company has a balanced scorecard but the relationship of this system to pay is ambiguous.
Cement Company	▪ This company uses several key performance indicators (KPIs) to determine sales people bonus pay. They tend to be based on: contribution (i.e. margin) and sales volume. These KPIs are adapted to the different product lines. ▪ There are other aspects of performance such as number of calls made by each sales person that are also measured but are not linked to pay. ▪ Targets are set for all the performance measures used to determine sales people's bonuses. ▪ Sales people's bonuses are based on the achievement of volume and contribution performance targets. Everyone within the sales team is entitled to have a bonus. If performance is on-target, sales people will receive about 10% of their base pay as a bonus. There is a different performance-payout relationship for each of the measures/targets included in the bonus scheme.
High Street Bank	▪ Sales people's bonuses are based on the achievement of four key performance indicators (KPIs) that look at both sales value and sales volume. The sales department uses a number of additional performance measures (e.g. market share, drop-out rate) to assess its performance but these measures are not linked to bonus payments. ▪ Everyone within the sales team is entitled to have a bonus. However, there are two different structures of sales bonuses regardless of the sales role. There is one structure designed for new recruits and there is another structure designed for people that have been with the company for several years. The size of the salary received by new recruits is smaller than the one received by more experienced sales people. However, the potential variable pay received by new recruits is higher than the one received by more experienced sales people. New recruits have a cap in their bonus at 120% of target achieved, whilst more experience sales people have a cap in their bones at 200% of target achieved. ▪ Together with the sales bonus, sales people's behaviours are assessed according to a competency framework. ▪ In addition to the bonus scheme, there are numerous recognition plans and performance contests that reward good performance both monetarily and non-monetarily.

Table 6. Description of the target setting process used by each company

Company	Brief description of the target-setting process
Media Company	▪ At the start of the year monthly targets are set by the sales director in collaboration with a person from the finance department. ▪ Targets are set for each sales team and for each brand. ▪ Targets are calculated taking into account a variety of factors: last-year results;

Company	Brief description of the target-setting process
	audience data (estimations); market analysis; Inputs from first-line sales managers; and company budgets. However, the weight given to each factor and the mathematical model used for computing the targets is unclear.
	▪ Targets are "given" to the sales people. The exact method used for communicating the targets is not formally defined.
Gas Company	▪ Targets are set taking into consideration the following factors: Budgets, past territory performance (plus growth percentage); management aspirations; forecast of territory events (e.g. business closures, etc.)
	▪ KPIs' targets tend to be similar for all the territories
	▪ Target are set using a top-down approach
	▪ Targets are set annually but they are reviewed quarterly.
Cement Company	▪ The sales director with the assistance of one of his team members sets the targets for all the sales force.
	▪ Targets are set annually and they are not reviewed during the year.
	▪ According to the information presented to us several factors are taken into account when calculating the targets. However, we are unclear (as well as the sales people interviewed) about the specific factors or the mathematical model used during the target setting process.
	▪ Targets are set for all the performance measures used to determine sales people's bonuses.
	▪ Targets are normally communicated in March/April (even though the target period starts in January). The exact method used for communicating the targets is not formally defined.
High Street Bank	▪ Based on forecast performance, the marketing department sets the targets for the sales department.
	▪ The gross targets produced by the marketing department are adjusted by the sales director in order to make sure they are "stretch".
	▪ Gross targets are reviewed bi-annually (May and Sep).
	▪ Individual targets per territory are set for the four key performance indicators the sales department uses to assess its performance.
	▪ Targets are set for each sales person based on a mathematical model that takes into account the following factors: length of time a sales person has been in his/her territory; previous individual performance against target; geographic location of key corporate relationships; expectations of business delivery at regional level; historical performance of each territory; and two additional environmental factors that cannot be disclosed due to confidentiality issues.
	▪ Targets are communicated by email each month. No previous agreement is considered.

The objective of this section is to present the methodology and so the description provided here is limited. We will present the analysis and findings in detail in section 4 of the report

3.2. Survey research

The objectives of the survey research are to examine in more detail sales people's knowledge and opinions about their incentive system, performance measures and targets; as well as to investigate a set of organisational factors that may affect people's perceptions on the level of difficulty of their targets. The survey has been

designed with a conceptual framework in mind, which is shown in Figure 10. The specific hypotheses that support this framework are presented in Table 7.

Figure 10. Survey conceptual framework

Organisational context factors
• Role clarity
• Time availability (lack of role overload)
• Work discretion/ decision-making autonomy
• Managerial & peer support
• Org. culture risk values
• Participation in target setting

• Perceived target difficulty

Expectancy of success

Individual behaviour and performance

Control variables
• Age
• Gender
• Experience on the job
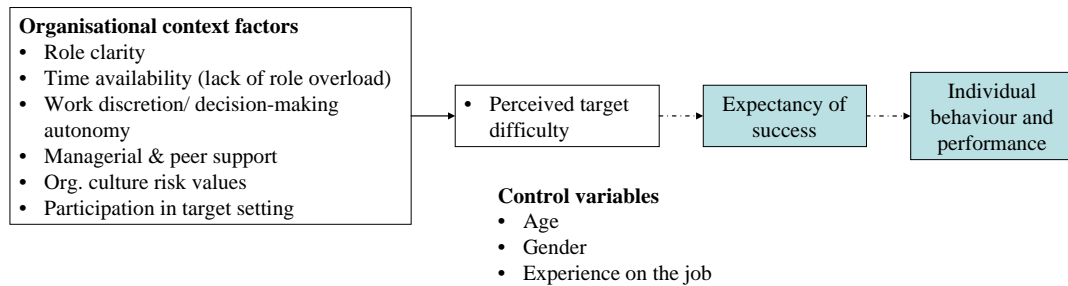
It must be highlighted that in order to narrow the focus of this survey, we only analyse the impact of six organisational factors on sales people's perceived level of performance target difficulty. It is assumed that this perception then has a negative effect on sales people's expectancy of success –that is, the higher the level of target difficulty, the lower the sales person's expectancy of success. This in turn has a positive effect on individual behaviour and performance –that is, the lower the sales person's expectancy of success the lower his performance will be and the more dysfunctional his/her behaviours. The empirical relationship between perceived target difficulty, expectancy of success and individual behaviour and performance is not fully explored in the survey as it has been already well researched in past studies (e.g. Badovick, 1990; Chowdhury, 1993; Schwepker and Good, 1999, Schweitzer, Ordonez and Douma, 2004).

Table 7. Summary of research hypotheses[5]

Hypotheses	Brief supporting argument
H1: *Sales people with high levels of role clarity are more likely to perceive their targets as less difficult.*	When sales people know exactly what their role and performance expectations are they can better estimate the actions required in order to achieve their targets, which will have a positive influence on their perceptions about how difficulty their targets are and how capable they are of delivering them.

[5] No specific hypothesis is proposed about the variables selected as control variables.

Hypotheses	Brief supporting argument
H2: *Sales people with high levels of time available are more likely to perceive their target as less difficult.*	When sales people are not overloaded with work assignments and have time to strategically think about their actions; they will feel more competent and this feeling will have a positive effect on their perceptions about how difficult their targets are and how capable they are of delivering them.
H3: *Sales people with high levels of decision autonomy are more likely to perceive their targets as less difficult.*	When sales people have more discretion about the decisions and actions they make; then they will feel more ownership of their work and more competent, which in turn will have a positive effect on their perceptions about how difficult their targets are and how capable they are of delivering them.
H4: *Sales people with high levels of managerial and peer support are more likely to perceive their targets as less difficult.*	When sales people receive continuous feedback and support from their superiors and peers, they will perceived to be more in control of their performance results, which will positively affect their perceptions about how difficult their targets are and about how capable they are of attaining them.
H5: *Sales people working in a company, which organisational cultural values encourage risk taking are more likely to perceive their targets as less difficult.*	When sales people work in supportive organisations where risk-taking, continuous learning and improvement are encouraged; they will perceive to be more in control of their performance results, which in turn will positively affect their perceptions about how difficult their targets are and about how capable they are of attaining them.
H6: *Sales people with a high level of participation in their target setting process are more likely to perceive their targets as less difficult.*	When sales people highly contribute to the target setting process; they will feel to be more ownership of their targets and more in control of their performance, which will in turn have a positive effect on how difficulty their targets are and about how capable they are of delivering them.

The next sections explain how the survey research and its questionnaire have been developed; the type of variables that have been included in the questionnaire and the type of data analysis that have been performed.

3.2.1. The questionnaire and sample

A questionnaire was developed based on previous academic work in order to be able to capture sales people's perceptions and understanding about their incentive plan, performance measures, targets and some other contextual factors. A pilot survey was conduced with Cranfield alumni working in sales roles. A total of 70 questionnaires were returned and based on the analysis of these data the survey was reviewed and improved. The final version of the questionnaire was produced on paper and on-line. A copy of the questionnaire was sent out to the sales force of each of the case study companies (Appendix C presents a copy of the questionnaire). A total of 95 questionnaires were collected (87% response rate) Table 8 summarises the number of responses received.

Table 8. Description of survey responses

Survey sample description	Results
Pilot survey (Cranfield alumni working in sales roles)	70 (28% resp. rate)
Survey in case study companies:	
Total number of sales people's responses	95 (87% resp. rate)
Responses from High Street Bank	23 (82% resp. rate)
Responses from Media Company	28 (93% resp. rate)
Responses from Cement Company	22 (84% resp. rate)
Responses from Gas Company	22 (88% resp. rate)

3.2.2. Measurement of study variables

Table 9 presents how each of the variables included in the conceptual framework were measured (factor and reliability analysis of each of the variables is presented in Appendix F). It must be noted that not all the questions included in the questionnaire were devised to address the conceptual framework proposed in Figure 10. Some questions were included for descriptive purposes only.

Table 9. Measurement of study variables

Variable	Survey questions	Type of measure	Source
Perceived level of target difficulty	Q2l	Likert Scale (5 points)	Cranfield
Participation in target-setting	Q2m	Likert Scale (5 points)	Cranfield
Organisation's cultural risk values	Average Q3 to Q3f	Continuous	Hornsby, Kuratko, Zahra (2000)
Work discretion/ decision-making autonomy	Average Q4a to Q4d	Continuous	Hornsby et al. (2000)
Time availability	Average Q5a to Q5d	Continuous	Hornsby et al. (2000)
Role clarity	Average Q6a to Q6d	Continuous	Hornsby et al. (2000)
Managerial and peer support	Average Q6e to Q6h	Continuous	Ito & Brotheridge (2005)
Experience on the job	Q18	Continuous	Cranfield
Age	Q11	Continuous	Cranfield
Gender	Q10	Dummy	Cranfield

3.2.3. Data analysis methods

Two methods of data analysis were used for examining the data extracted from the survey. These are *correlation* and *multiple regression* analysis. For those who are not familiar with these data analysis methods the following paragraphs briefly explain them.

Correlation is a measure of the linear relationship between variables. There are three ways in which two variables can be related: (1) positively related, (2) not related, and (3) negatively related. The correlation coefficient (R^2) will always be between 1 and -1. When the correlation coefficient is 0, this means that no correlation between the variables exists. When doing correlation analysis, it is necessarily to check the significance level (p) of the correlation. If $p<0.05$ this means that the probability of this correlation being as a result of chance is low (less than one in 20). Under these circumstances, traditionally researchers accept that the correlation between the two variables exists. *However, it must be remembered that correlations cannot be used to infer causal relationships.* That is to say, we can accept that one variable changes with another variable, but we can not claim that one variable is causing the other variable to change.

Multiple regression seeks to predict an outcome from several variables (e.g. $Y = \alpha + \beta_1 X_1 + \beta_2 X_2 + \varepsilon$). The value of the regression coefficient α can be interpreted as meaning that when $X_1=0$ and $X_2=0$, the model predicts α of Y. β_1 can be interpreted as representing the change in the outcome associated with a unit change in the predictor. For example, if our X_1 variable is increased by 1 unit, then our model predicts that our Y variable will increase in β_1. A t-statistic is produced for each β coefficient. It should be significant ($p<.05$) in order to be valid. *Multiple regression analysis is used for prediction purposes. It cannot be used to infer causal relationships.* Regression analysis compared to correlation analysis is more robust as it can take into consideration the diverse set of variables (X) that affect a specific outcome.

Having described the research methods used, in the next section we will present the findings of this research.

4. Research findings

We will present the research findings here under the headings of the three research objectives chosen as the focus of our study. First, we will present the findings associated with the impact of performance targets in the context of performance measures and incentives. Second, key issues associated with the process of setting sales performance targets are summarised. Finally, we will highlight the results of our research into how five organisational factors affect sales people's perception of target difficulty.

4.1. The impact of performance targets in the context of performance measures and incentives

For addressing this literature gap, the research team used the information extracted from the case study research. Based on this information, a list of strengths and weaknesses of the incentive system, performance measures and targets used by each participating company was developed (see Appendix C). The lists highlighted the importance of different factors associated with these three motivational tools. It was found that each of these tools cannot be considered in isolation when examining the influence on sales people's behaviour. They are all interrelated and their specific design must be aligned with the organisational and environmental conditions of the company if they are to positively influence behaviour. In order to clarify the factors associated with the sales incentive system, its performance measures and the targets that had the greatest effects on behaviour, the research team developed the framework that appears in Figure 11. A brief description of each factor is provided below.

Figure 11. The impact of incentives, performance measures and targets on people's behaviour
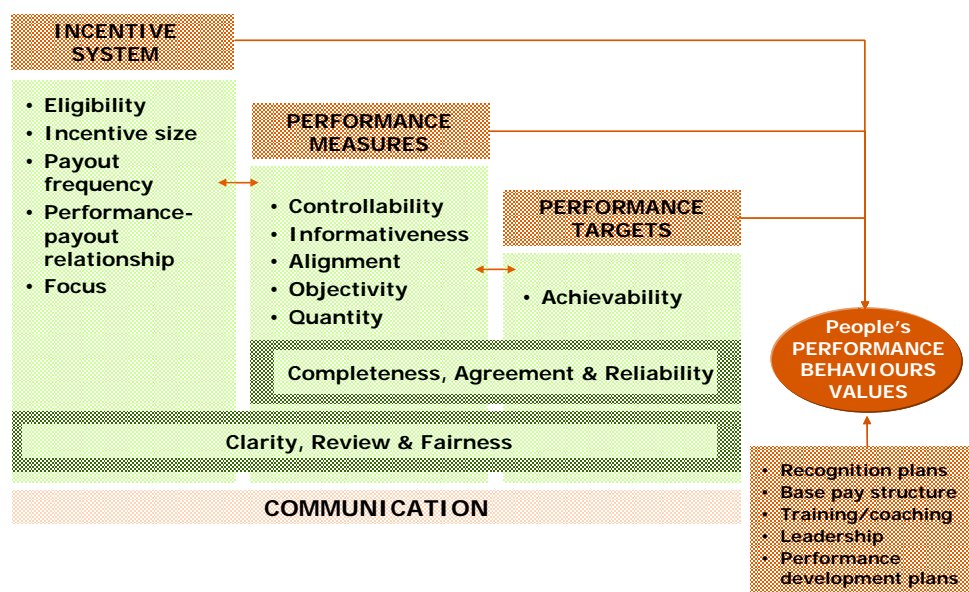
Note: Factors are NOT located in order of importance. Equal importance is assumed.

Factors associated with the incentive system

- *Eligibility:* This factor refers to who in the sales department is entitled to receive incentive pay and to how much influence each person has on sales performance. In order to positively affect behaviour everyone with the same role and influence over sales performance should be entitled to receive sales incentive pay.

- *Incentive size:* It refers to the amount of money the firm has established as incentive pay for their sales people (normally calculated as a percentage of salary). The incentive size should be internally and externally equitable. That is to say, it should take into account internal equity levels and it should be in line with the incentive size that is typically used by peer companies. It also should consider how much influence sales people have over sales performance results. The higher the influence the larger the potential size of the incentive.

- *Payout frequency:* It refers to how often incentives are paid to sales people. The frequency of payout should be in line with the sales processes and strategic planning.

- *Performance-payout relationship:* It refers to the payout curve that reflects how incentive payments are calculated and how they vary with measured performance. Different design aspects are associated with performance-payout relationships (e.g. linear, regressive or progressive relationships between pay and performance; the use of caps versus no caps; payments starting at 100% of target or at a fraction of a target). Each design aspect needs to be aligned with the context in which the organisation operates as it will have different effects on behaviour.

- *Focus:* It refers to the proportion of sales people's incentive pay that is linked to individual, business unit and/or organisational performance. The focus of incentives needs to be in line with the way in which sales people work and the way in which sales tasks are interrelated.

- *Incentives review:* It refers to how often the sales incentive plan is reviewed in order to keep it up to date and in line with market/industry practices. Incentive systems need to be reviewed periodically, at least once every two years and every time there is a strategic change in the organisation.

- *Fairness:* It refers to the extent to which the sales people's incentive plan is perceived to be fair by sales people. Perceptions of fairness or equity remains in the eyes of the beholder so management needs to make sure sales people perceive their incentive system to be fair.

- *Clarity:* It refers to the extent to which sales people understand their incentive plan. Sales people need to clearly understand what are they being paid for and how.

- *Communication:* It refers to the way in which sales people's incentive plan is communicated to the sales people and to the quality of that communication. Sales people need to know how their incentive system works. The more transparency there is with incentive information the more satisfied sales people will be, which will have a direct effect on their behaviour.

Factors associated with the performance measures used to determine pay

- *Controllability:* It refers to the extent to which sales people's decisions and actions are able to influence the results of their performance measures (those linked to their incentive plan). The more control sales people have over their performance measures the more effective the measures will be.

- *Informativeness:* It refers to the extent to which performance measures provide information to sales managers and sales people about the effect of sales people's decisions and actions. It is important that the performance measures used for compensation purposes provide relevant information for decision-making to their users.

- *Alignment:* It refers to the extent to which sales performance measures are consistent with the sales and marketing strategic objectives and the firm's strategy as a whole. Performance measures need to be aligned with strategy in order to encourage the expected behaviours and avoid the well known topic of *"rewarding A, while hoping for B"* (Kerr, 1995).

- *Objectivity:* It refers to the extent to which performance measures are based on observable phenomena uninfluenced by personal judgement. Those measures used for pay purposes need to be perceived as objectives by their users. Perceptions of subjectivity generate feelings of unfairness and may have detrimental effects on behaviour.

- *Quantity:* It refers to the number of measures used to assess sales people's performance and determine their incentive pay. In order to keep people focused, the number of performance measures used needs to be relatively small. Following Miller's (1956) advice the magic number is five, plus or minus two.

- *Completeness:* It refers to the type of performance measures that have been used to assess and reward performance. Do they capture the different dimensions of sales people's performance? In principle, the performance measures used for performance evaluation and reward purposes need to reflect the key sales people's performance dimensions (e.g. financial dimension, customer dimension). If the number of key dimensions is high, prioritisation and correlation analysis should be employed in order to understand how the different dimensions of performance interact and whether some dimensions

can be excluded from the incentive system as they are highly correlated with others[6].

- *Agreement:* It refers to the extent to which sales people agree with the performance measures used to assess and reward their performance. Sales people need to participate and accept the performance measures that are going to be used for assessing and rewarding their performance for better behavioural results.

- *Reliability:* It refers to the extent to which the data used for calculating the performance measures is reliable. If performance data is distorted or manipulated this will have a negative effect on behaviour. Sales people need to trust their performance data in order to behave appropriately.

- *Measures review:* It refers to the extent to which performance measures are periodically reviewed and updated. Performance measures need to be reviewed periodically in order to make sure that they are still valid.

- *Clarity:* It refers to the extent to which sales people understand the performance measures used to assess and reward their performance. Sales people need to understand how their performance measures are calculated and what they mean for better behavioural results.

- *Fairness:* It refers to the extent to which the measures used for assessing and rewarding sales people's performance are perceived to be fair. Sales people need to perceive that the performance measures used for assessing and rewarding their performance do not favour any particular territory, team or person for better behavioural results.

- *Communication:* It refers to the way in which the performance measures and their results are communicated to the sales people; also, to the quality of that communication. Sales people need to be aware of what their performance measures are, why they have been chosen and how they are calculated. The more transparency there is with performance measurement information the more satisfied sales people will be, which will have a direct effect on their behaviour.

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[6] If two performance measures are highly correlated we can collect data on both but just use one of them for pay purposes as with the information of one measure we know how the other one will behave (Meyer and Gupta, 1994).

Factors associated with performance targets

- *Achievability:* It refers to the extent to which performance targets are perceived to be achievable by sales people. This factor is crucial when you take into consideration how often sales people refer to it. Sales performance targets need to be perceived as achievable by their users. If they are perceived as unattainable, they negatively affect motivation.

- *Completeness:* It refers to the extent to which the variety of factors affecting sales people's performance is taken into consideration during the target-setting process. The use of past performance only for setting targets has been found detrimental as it generates what is known as the *ratchet effect* (Hood, 2006). There are many factors that can affect sales people's performance (e.g. environmental, individual, etc.) so it is important that management includes these factors when deciding on which targets to establish.

- *Reliability:* It refers to the extent to which the internal and external data used to set targets are reliable. The data use for setting targets must be reliable. If it is not, there is a high probability that targets will be perceived as unachievable or distorted. This perception will have a negative effect on sales people's behaviour.

- *Agreement:* It refers to the extent to which targets are agreed between sales people and their managers. Each sales person must accept and agree with his or her performance targets in order to be committed to delivering them. If targets are perceived to be given, sales people's satisfaction with targets decreases and this affects their motivation to attain them.

- *Targets review:* It refers to how often the targets are set and reviewed. It is important that performance targets are periodically reviewed in order to keep being valid and achievable. It is also important that the performance of sales people against targets is periodically reviewed and communicated as it has a direct effect on sales people's behaviour (e.g. Chowdhury, 1993).

- *Fairness:* It refers to the extent to which the performance targets are perceived to be fair. Sales people must perceive their targets to be fair and equitable –i.e. that the targets do not favour any particular territory, team or person.

- *Clarity:* It refers to the extent to which sales people understand their targets and the target-setting process. Sales people need to clearly understand their targets and how they are estimated as this seems to have a positive effect on their commitment with the targets and on their motivation to achieve them.

- *Communication:* It refers to the way in which performance targets are communicated to the sales people and to the quality and timing of that communication. Performance targets need to be communicated clearly. Sales people need to know what the target is, how it has been calculated, who is

responsible for achieving them, how well are they doing against it, etc. The timing of the communication is also important. When performance targets are set they need to be communicated as soon as the target period starts and not later. Sales people's performance against target needs to be communicated as often as possible.

4.2. Issues associated with the sales target-setting process

In order to give an answer to this research gap, the research team used the information extracted from the case study research on the target-setting processes used by the four case study companies. The process followed by each of these organisations had the following things in common:

- *The forecast was mainly based on past performance.* This type of forecast generates what is known as the ratchet effect. Salespeople who expect to be with the company for the next target period have a perverse reason not to exceed targets even if they could easily do so. For instance, a clever salesperson will reach 105 per cent of his target in order to get his/her bonus, never 120 per cent as this higher figure will generate a harder target for his/her next financial year. The ratchet effect causes salespeople to restrict their performance to well below their potential.

- *Targets were allocated inappropriately across the sales force.* This aspect of the target-setting process generated what is known as the threshold effect. According to this effect, a uniform performance target is applied to all sales units or regions without recognising their contextual differences. This type of target gives no incentive to excellence and they may indeed encourage top performers to reduce the quality or quantity of their performance to just what the target requires.

- *Targets were perceived to be either two high or two low.* When targets were set too high, sales people became discouraged and de-motivated. Furthermore, this type of targets generated dysfunctional behaviours in the sales force such as outcomes distortion or "window dressing". When targets were set too low, the maximum potential of sales people was not realised and additional bonuses were paid out without a real increase in true performance.

- *Some targets were based on the wrong performance measures.* Performance measures were not reviewed periodically. Some performance measures were obsolete and no longer linked with the business strategy. However, they were still being used in the sales incentive system for target setting purposes. This issue caused sales people to typically refer to the phrase "hitting the target and missing the point".

- *Targets were entirely based on financial indicators.* This was the case even though most of the organisations studied emphasised areas such as customer relationships and employees' satisfaction in their sales strategy.

- *The data analysis process on which targets were based was poor and lacked rigour.* Data was analysed without taking into consideration critical statistical rules and techniques. In addition to this, data was superficially studied, even though organisations had the IT system capabilities to conduct in-depth analysis.

- *Targets were not periodically reviewed.* Once the targets were set they were not reviewed until the end of the target period (e.g. every quarter) unless some major event happened. This issue generated distrust over the targets as they did not reflect specific contextual changes that occurred throughout the target period.

- *Targets were "given" to the sales people.* There was little communication and negotiation over the performance targets, which generated a lack of ownership over the targets. It also produced a lack of understanding of how the targets were set and how they needed to be attained.

- *The interrelation between targets was not considered during the target-setting process.* As a result, some targets were inconsistent with each other. They could not all be attained.

- *Agreed action plans were the exception and not the norm.* Action plans were left to the discretion of the individual sales person. Some sales people and teams had very rigorous action plans but others had none. Successful plans were not openly shared among the sales force as there was a culture of "healthy" internal competition which limited collaboration and organisational learning.

In sum, the people interviewed believed that the target-setting process of their companies did not generate the "right" performance targets nor did it seem to generate the "right" environment for those targets to be achieved. In general, as it was also revealed by the responses to the research questionnaire, sales people were very dissatisfied with their targets and they believed that the impact of targets on behaviour was not being positive (see Figures 12 and 13). Based on the insights extracted from each of the companies target setting processes and on the knowledge obtained from the literature reviewed (see Section 2), the research team elaborated a specific model, which aim is to improve the way in which performance targets are set.

Figure 12. Perceived satisfaction with targets
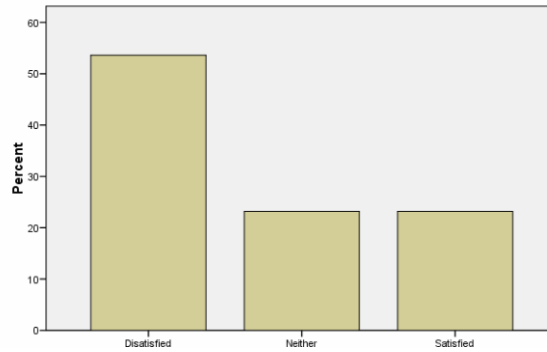
Figure 13. Perceived impact of performance targets on behaviour
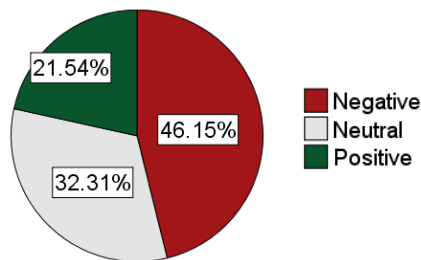
A comprehensive model for setting performance targets

The following model includes ten steps that comprise the key activities that are required for ensuring that the performance measures used in the target setting process and the final targets agreed are as effective as possible (see Figure 14)[7]. Most organisations already perform most of these activities when setting their targets (the highlighted steps in Figure 15 show those activities that are typically conducted by organisations). However, there are other activities such as the

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[7] The Cranfield Target-Setting Wheel can be used at all levels of the organisation –that is corporate level, business unit, department and individual teams. For illustration purposes, the perspective used here for the description of the framework is the corporate level.

understanding of variation or the discussion and agreement of an action plan that seem to be completely ignored during the target-setting process.

Figure 14. The target-setting wheel
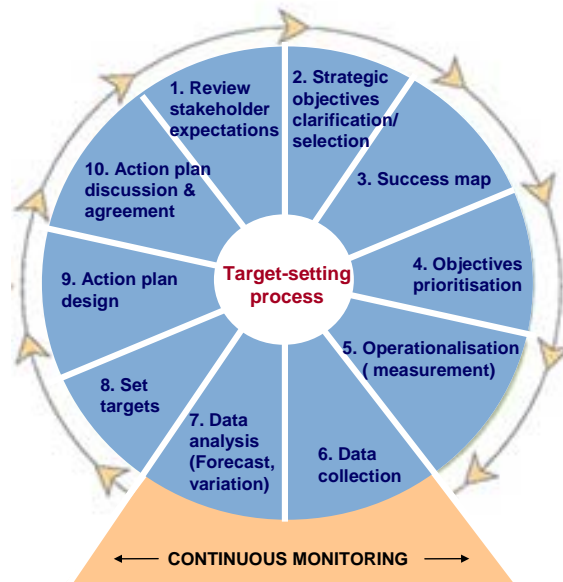
Figure 15. Target-setting activities typically performed by organisations

- *Review stakeholder expectations:* The first step that should be undertaken when developing performance targets is a review of the organisation's stakeholder expectations. Questions such as "who are the organisation's stakeholders?" and "what do they expect from this organisation?" are critical at this stage (Neely, Adam, Kennerley, 2002). This exercise will determine the areas that the organisation need to address in order to be perceived as successful.

- *Strategic objectives clarification/selection:* Once the stakeholders' expectations have been identified, the next step is to articulate these expectations into strategic objectives. Strategic objectives are clear statements of what the organisation aims to achieve. They must be few in number and they should address those key stakeholders' "needs" and "wants" (e.g. customers, employees, financial markets, etc.).

- *Define the organisation's success map* (also known as "strategy map" (Kaplan and Norton, 2004)). A success map is a diagram that shows the cause-and-effect relationships among the different strategic objectives (Neely et al, 2002). It describes how the organisation creates value to their stakeholders.

- *Objectives prioritisation:* Some strategic objectives will have more relevance than others at particular points in time. Therefore, it is crucial that the organisation clarifies its priorities within the success map.

- *Operationalisation:* The next step is to operationalise the different strategic objectives. This means defining how each strategic objective is going to be measured. Measures can be quantitative or qualitative but they should be clearly stated. It is common for organisations to denominate these measures *Key Performance Indicators (KPIs).*

- *Data collection:* Once strategic objectives have been translated into clear KPIs, the next step is to define the data collection method that is going to be implemented for each KPI. At this stage it is important to decide the information system that is going to be used (e.g. Excel, SAP, etc.), the data source, the individuals that are going to be in charge of collecting and computing the data, and the frequency of data required.

- *Data analysis:* At least two important aspects of data analysis must be conducted for each KPI. These are *forecasting* and *capability* analysis:

  Forecasting: When conducting a forecast exercise, careful consideration must be given to the methods used and to the intervening factors selected (Armstrong, 2001). As a rule of thumb, the more uncertainty there is in a specific market the more number of factors will be required in the forecasting (e.g. competitors' data, economic environment, internal capabilities) as historical information (i.e. past performance) will not be a useful predictor of future performance (Saffo, 2007).

Capability analysis: After data has been collected for a particular KPI a rigorous analysis of this data must be conducted. The objectives of this analysis are (1) to understand how capable the organisation is at delivering the forecast figures, and (2) to identify the actions that must be taken in order to enable the organisation to deliver the forecast figures. A helpful tool at this stage is the use of control chart analysis (e.g. Deming, 1986). For instance, if a strategic objective is suggesting a sales growth figure of 7 percent for the next financial year and monthly historical data of the last three years suggests that 7 percent is outside the capability of the existing process, the target may be unachievable with the existing organisational processes. If 7 percent sales growth must be attained in order to ensure organisational competitiveness, then the way in which the organisation operates must be changed (e.g. by increasing the sales force size, introducing a new training/coaching programme or other means). Apart from control charts there are other tools that can help organisations identify their capabilities for delivering a forecast figure. For example, matrices that incorporate several KPIs' forecasting figures can be used for investigating the interrelations between the KPIs and how likely is an organisation to achieve a KPI without necessitating a trade-off with another (e.g. Donaldson, 1985).

- *Set targets:* Once a forecast has been conducted and a proper capability analysis has been developed then the next step is to decide on specific performance targets for the organisation's KPIs.

- *Action plan design:* After performance targets have been agreed, organisations need to spend the time deciding on the actions that will help them achieve their targets.

- *Action plan discussion and agreement:* Each target must be communicated together with the action plan designed to reach it. The action plan MUST be discussed and agreed with the team or individual who is going to be accountable for reaching the target. *Action plans should not be "given", they should always be discussed and agreed.*

4.3. Factors affecting sales people' perception about the level of target difficulty

In order to investigate the factors that have an impact on sales people's perceptions of target difficulty, the research team used the data gathered through the questionnaire completed by the sales people working in each of the case study companies. The survey data was analysed using correlation and multiple regression analysis (the descriptive statistics of the survey are presented in the Appendix F). As Figure 16 and 17 suggests, more than half of the sales people surveyed perceived their targets to be difficult to achieve and thought that by the end of the year their performance was going to be below target. As it was found in

the literature review, these perceptions of failure to achieve targets can have a very strong effect on behaviour (e.g. Chowdhury, 1993; Greve, 2003; Schwepker and Good, 1999).

Figure 16. Perceived target difficulty
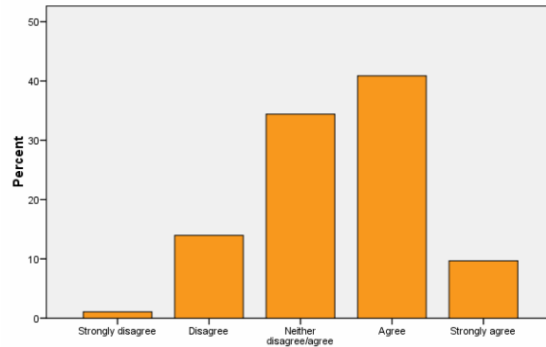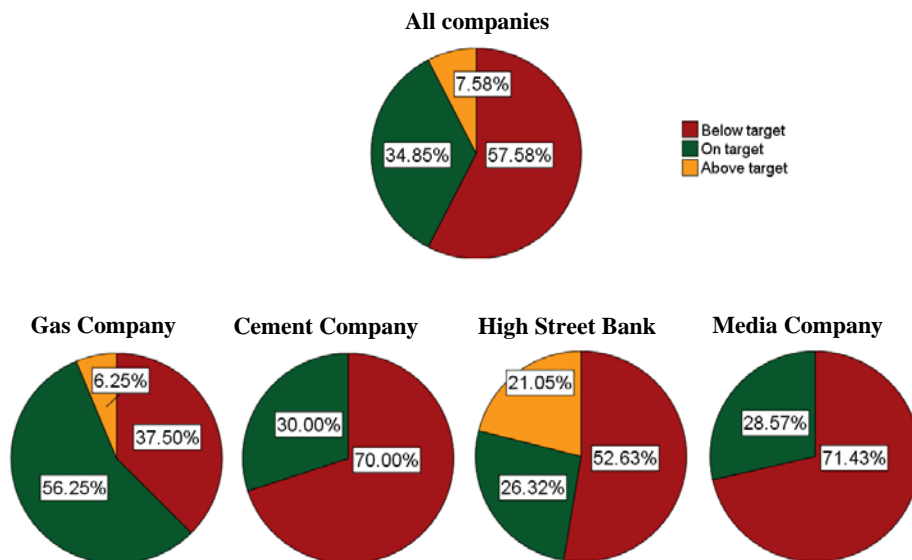*(Response to Q2l- My bonus performance targets are difficult to achieve)*

Figure 17. Perceived level of bonus achievement at the end of the year

4.3.1. Results of hypotheses testing

According to the data obtained from the regression analysis, the following can be said about the hypotheses proposed in Section 3.2. The results of the correlation and regression analysis performed are presented in Table 10 and 11.

- Hypothesis 1 refers to the negative relationship between sales people's role clarity and their perception about the level of difficulty of their targets. As it can be seen in Table 11, this hypothesis is supported by the data. When sales people have a clear idea of what their role and performance expectations are, they are more likely to perceive their targets as less difficult.

- Hypothesis 2 refers to the negative relationship between sales people's time availability and their perception about the level of difficulty of their targets. Table 11 shows that this hypothesis is not supported by the data. Even though the sign of the beta coefficient is negative; it is not significant at $p \le .05$.

- Hypothesis 3 relates to the negative relationship between sales people's level of decision-making autonomy and their perception about the level of difficulty of their targets. Table 11 paradoxically shows that this hypothesis is not supported by the empirical evidence. What is more, the data suggests that the relationship between sales people's level of decision-making autonomy and their perception about the level of difficulty of their targets is positive rather than negative. This means that the more autonomy sales people have the more difficult they perceive their targets to be.

- Hypothesis 4 refers to the negative relationship between sales people's level of managerial and peer support and their perception about the level of difficulty of their targets. Table 11 shows that this hypothesis is not supported by the data as the beta coefficient is not significant at $p \le .05$.

- Hypothesis 5 proposes that the relationship between organisational cultural risk values and sales people's perception about the level of difficulty of their targets is negative. That is when sales people work in supportive organisations where risk-taking, continuous learning and improvement are encouraged; they will perceive more ownership of their targets, which in turn will positively affect their perceptions about how difficult these targets are. Table 11 shows that this hypothesis is supported by the survey data.

- Hypothesis 6 states that there is a negative relationship between sales people's level of participation in the target-setting process and their perceptions about how difficult their targets are. Table 11 shows that this relationship is supported by the data.

Table 10. Results of correlation analysis (Pearson correlations)

		1	2	3	4	5	6	7	8	9
1.	Org. cultural risk values									
2.	Work discretion	**.487***								
3.	Time availability	**.259***	.078							
4.	Role clarity	.149	**.242***	-.068						
5.	Support	**.407***	**.437***	.154	**.411***	1				
6.	Participation in target setting	**.325***	**.314**	-.056	**.267***	**.305**				
7.	Experience on the job	**-.332**	-.165	**-.319**	.191$^{\mathbf{T}}$	.009	-.092			
8.	Age	**-.411***	-.171	**-.307**	-.035	**-.222***	-.149	**.584***		
9.	Gender	**.236***	-.038	.180	-.020	-.022	.070	**-.234***	**-.334***	
10.	Perceived target difficulty	**-.307**	.034	**-.238***	-.136	-.095	**-.317**	**.250***	.131	-.158

Levels of significance: *** $p \le 0.001$; ** $p \le 0.01$; * $p \le 0.05$; $^{\mathrm{T}}$ $p \le 0.10$

Table 11. Results from regression analysis – Dependent variable Perceived target difficulty

Factors	Unstandardized coefficients		Standardized coefficients		
	Beta	**Std. Error**	**Stand. Beta**	**t-test**	**Sig**
Constant	5.061	.955		5.298	.000
Experience on the job	**.052**	**.022**	**.312**	**2.335**	**.022**
Age	-.017	.011	-.204	-1.525	.132
Gender	.053	.208	.027	.253	.801
Org. cultural risk values	**-.286**	**.153**	**-.243**	**-1.871**	**.065**
Work discretion	**.402**	**.148**	**.331**	**2.715**	**.008**
Time availability	-.209	.132	-.175	-1.584	.118
Role clarity	**-.256**	**.151**	**-.191**	**-1.693**	**.095**
Support	.002	.150	.001	.011	.991
Participation in target setting	**-.237**	**.088**	**-.296**	**-2.695**	**.009**
Durbin-Watson	2.203				
R^2	**2.96**				
F	**3.311**				

Levels of significance: *** $p \le 0.001$; ** $p \le 0.01$; * $p \le 0.05$; $^{\mathrm{T}}$ $p \le 0.10$

So in summary, from the survey we have found that:

1. When sales people have a clear idea of what their role and performance expectations are, they are more likely to perceive their targets as less difficult

2. When sales people work in supportive organisations where risk-taking, continuous learning and improvement are encouraged; they will perceive

more ownership of their targets, which in turn will positively affect their perceptions about how difficult these targets are

3. When sales people participate in the target-setting process their perceptions of target difficulty falls.

4.3.2. Discussion of survey results

We found data supporting three of our hypotheses about the factors that influence the perception of target difficulty. Given that these six hypotheses were developed from the literature, we should discuss the findings. Two Hypotheses (2 and 4) were not supported by the data and we will discuss these first.

Hypothesis 2 relates to the belief that if sales people had greater time availability they would perceive their targets as being easier. This not being the case could be explained by considering that the sales people in the four organisations studied simply filled their time selling their products and services. The principle that "work expands to fill the time available" might be a factor here. It should also be noted that the majority of the sales activities were relatively straight forward selling relatively standard products and services through existing channels and that their efforts were predominantly sales focused. Although the relationship was not found in this study, it may be more prevalent in organisations selling complex products, such as aero engines, or services, such as consultancy, as these situations require greater emphasis on sales effectiveness rather than efficiency. Having more time available in these situations provides the opportunity for sales people to develop their sales offering and to reflect and learn.

Hypothesis 4 relates to the level of managerial and peer support, with the hypothesis stating that higher levels of support reduce perceived target difficulty. In this study we have found that on its own this is not enough. It is interesting to note that when the supportive organisation encourages risk taking, learning and continuous improvement the perception of target difficulty does in fact fall.

Finally, Hypothesis 3 predicted that the higher the level of sales people's decision making autonomy the lower the perceived target difficulty. The data suggested the exact opposite. We interpret this finding as follows. As already discussed, the sales activities were relatively straight forward and standard. In these environments, one would expect to find a sales process with individuals working to that process. If the sales people believed that the process was effective and all they had to do was to run the process to be successful, then a well prescribed process (low autonomy) would be seen as helpful in achieving their target. In these circumstances, a less well prescribed process may be seen as less well developed, leading to an uncertain outcome and a greater perceived target difficulty. Again, in complex selling environments, autonomy might be beneficial, but this data suggests that autonomy of action requires further research.

5. Conclusions

At present, most organisations use performance targets for influencing the behaviour of their employees. The results these organisations obtain are not always the ones expected. This issue makes managers question the true value of performance targets as a motivational technique. For this reason, it is important that the use and effects of performance targets are reviewed in order to address the problems that management professionals are encountering.

There is a great amount of research looking at the impact of performance targets; however, there are still many gaps that require further investigation if we want to inform managerial practice. This study focuses on three of these research gaps. In particular, the study looks at: (1) the behavioural impact of sales performance targets in relationship with sales incentive systems and performance measures; (2) key issues associated with target-setting processes; and (3) the effect of a set of organisational factors (role clarity, managerial and peers support, time availability, organisational cultural risk values, participation in target setting and work discretion) on sales people's perception of the level of difficulty of their targets. The study addresses these three research areas by conducting four case studies in sales organisations and a survey of 95 sales representatives.

Regarding the first research gap, the study finds that, in sales environments, performance targets cannot be investigated in isolation as they are intrinsically related to incentive systems and performance measures. Each of these motivational tools needs to satisfy specific conditions in order to generate the expected behaviours. The nature of these conditions highly depends on the internal and external context of the company. In order to better present the conditions or factors that can have an impact on sales people's behaviour, the research team has elaborated a framework that is described in Section 4.1.

In relation to the key issues associated with target-setting processes this research finds that all the case study companies shared the following ten target-setting issues: (1) the forecast used for setting targets is mainly based on past performance; (2) targets are allocated inappropriately across the sales force; (3) targets are perceived to be inadequate (either too high or too low); (4) some targets are based on the wrong performance measures; (5) targets are entirely financial; (6) the data analysis process used is simplistic and lacks of rigour; (7) targets are not periodically reviewed; (8) targets are "given" to sales people; (9) the interrelation between performance targets is not considered during the target-setting process; and (10) agreed action plans are normally not specified after targets are set. Based on this information and on the insights extracted from previous academic work on target-setting processes, the research team has created a comprehensive model, which aims are to address the problems found in this research and to improve target-setting processes overall.

As per the effect of role clarity, managerial and peers support, time availability, organisational cultural risk values, participation in target setting and work discretion on sales people's perception of the level of difficulty of their targets, this research finds that management teams may positively influence sales people's perceptions about how attainable their targets are by clarifying sales people's roles, engaging sales people in the target-setting process, and generating an organisational culture that encourages risk-taking and performance improvement. The study also finds that by increasing sales people's work discretion or decision-making autonomy, management may negatively influence sales people's perceptions about how attainable their targets are. This finding is somehow surprising as the expectation was to find a positive relationship between work discretion and sales people's perceptions about how attainable their targets were. This result might be explained if we take into consideration that in today's sales environments sales people need to work in teams and with high support from above and below in order to meet their targets. According to Brown et al. (2005), effective sales people are no longer "lone wolves" working autonomously in their territories but well related individuals that are able to work in close collaboration with others.

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Appendix A: Summary of the marketing literature on the impact of sales performance targets

Table 12. Summary of findings from previous research studies looking at the impact of performance targets

Author & date	Method & context	Target characteristic	Behavioural variable	Findings
Badovick (1990)	Survey (277 sales reps)	Attainability	Emotional reactions & motivation	▪ Emotional reactions after failure to meet a sales target have a substantial negative impact on subsequent salesperson motivation
Chowdhury (1993)	Experiment (113 undergraduate management students)	Attainability	Effort	▪ As quota level is increased, effort (i.e. intensity and persistence of work) increases only up to a point, after which increases in the level of the quota may actually decrease effort. ▪ The impact of increased quota levels is stronger for subjects who are high in self-efficacy than for subjects who are low in self-efficacy. ▪ Giving sales people information about the probability of their success in the assigned task (i.e. progress towards targets) affects their personal expectancy either positively or negatively depending on the information supplied. This effect is particularly important for sales people with high-self-efficacy.
Fang, Evans and Zou (2005)	Two surveys multiple industries in two countries (US – 290 resp, and China -247 resp)	Attainability, specificity, participation	Performance	▪ The effect of sales control systems on effort and performance is mediated by goal-setting strategies. The different control systems and goal-setting strategies must be sensitive to the differences across national cultures. ▪ In the US, when end results, such as salespeople's sales volume and profits, are the primary concerns of managers, a high level of outcome control along with moderately difficult, specific goals should be adopted. When behaviour performance, such as maintaining good relationships with customers and providing timely feedback, is the primary concern of managers, high levels of activity control and capability control along with more easily obtainable, non-specific goals (e.g., do your best) are more desirable. ▪ In China, when end results are the primary concerns of managers, a high level of outcome control along with moderately difficult, non-specific goals would be appropriate. Whereas when behaviour performance is the primary concern of managers, high levels of activity control and capability control along with more easily obtainable, non-specific goals, and a high level of goal participation should be adopted.
Gaba and Kaira (1999)	5 experiments – MBA students	Attainability (quota linked to	Risk taking behaviour	▪ Salespeople's risk taking behaviour depends on their type of compensation plan. ▪ A high quota level or a rank-order contest where only the top few win induce sales

Author & date	Method & context	Target characteristic	Behavioural variable	Findings
	(incentives)			▪ representatives to opt for high-risk prospects (e.g. getting new larger customers to switch from competitors), whereas a low quota level or a rank-order contest where a high proportion win induce sales representatives to opt for low-risk prospects (pursuing a small set of existing customers). ▪ Quotas must be set taking into consideration not only the sales representative and territory characteristics, but also the strategic objectives of the product line/brand.
Ross & William (1991)	2 experiments with MBA students	Attainability (targets linked to incentives)	Risk taking behaviours (call selection decisions)	▪ When performance against quota is a significant factor in a salesperson's compensation, that salesperson's call selection decision is influenced by his or her position in relation to quota. The study finds that (1) salespersons who perceive themselves to have no chance to attain quota are more likely to make risk averse decisions, (2) salespersons who have made quota are more likely to make risk seeking decisions, and (3) salespersons who have a chance to make quota select the alternative that affords the best opportunity of making quota.
Schwepker and Good (1999)	Survey in financial services (182 sales reps, 9.2% resp. rate)	Attainability	Unethical behaviour	▪ There is a significant relationship between quota difficulty and moral judgement (i.e. unethical behaviour) when salespeople foresee negative consequences for failing to achieve quota.
Schwepker and Good (2004)	Survey in financial services (182 sales reps, 9.2% resp. rate)	Attainability	Performance and sales people income	▪ Sales people who perceived their sales quota to be difficult had poorer performance evaluations and earned less income. ▪ The more difficult sales people perceive quotas to be, the higher the firm's annual sales revenue and the lower the individual performance ratings. ▪ When no actions are taken by sales managers after sales people fail to reach their targets, performance tends to be lower. On the contrary, managers working/coaching "no-quota achievers" results in better performance. ▪ The less leniency sales people are afforded in reaching their quota prior to being terminated, the higher their performance and their income.
Winer (1973)	Field experiment in manufacturing company (12 branches, 104 sales reps).	Attainability	Motivation & productivity	▪ Sales people are "quota achievers" rather than "dollar maximisers". Due to their typical profile, when sales people are given a target that is easily attainable their motivation declines; however, if they are given a target that is challenging their motivation increases.

Author & date	Method & context	Target characteristic	Behavioural variable	Findings
Wotruba & Thurlow (1976)	Survey of sales people (202 sales reps, 36% resp. rate)	Participation in target-setting (targets linked to incentives)	Accuracy of forecast	▪ Participation in target-setting processes increases the accuracy of sales forecasts.
Wotruba (1989)	Survey in service org. - direct selling (491 sales reps.)	Participation & specificity (targets, linked to incentives)	Effort & performance	▪ This study focuses on situations in which targets are self-assigned by sales people rather than by superiors. The study found that those sales representatives that set specific performance targets compared to those that set general targets or no targets at all exerted more effort. However, increased effort did not relate to greater performance. Wotruba suggests that "since selling is a complex task, done independently by sales agents often without frequent and direct guidance, the increased effort may not pay off in greater achievement; in fact, it may cause frustration which leads to increases in the propensity to quit" (1989, p. 27)

Appendix B: Case study protocol

Information included in this protocol

Key informants to be interviewed

Interview structure

Interview questions

Key informants to be interviewed

- Sales director
- Sales compensation manager or equivalent
- Senior sales managers
- Junior sales managers

Interview structure

The interview structure will be as follows:

1. Obtain pertinent information prior to the visit

2. Obtain basis organisation information from the information provided or initial interview

3. Start with the senior people and work down the organisation. The suggested interview order should be:

    - Sales director
    - Sales compensation manager or equivalent
    - Senior sales managers
    - Junior sales managers

4. Each interview structure should contain

    - Introduction
    - Opening questions
    - Follow on questions

    Notes:

    - The opening questions should establish the type of performance measures, targets and incentives that the organisation has for sales people.

    - The follow on questions should focus on the impact of performance targets on sales people behaviour.

    - Evidence should be gathered. We don't necessarily want to take away copies of the evidence, but it would be useful to have seen the evidence cited in response to our questions. We must record the type of evidence seen.

Interview guidelines

Introduction

THANK YOU very much for your willingness to participate in this research and for your time. The objective of this research is twofold:

- To look at the impact of performance targets on sales people's behaviour.

- To examine target setting processes in order to make them more effective.

Key concepts: performance measures/indicators, performance targets, target setting process, bonus/incentives, and sales people's behaviour.

For the following questions there are not right or wrong answers. Please answer them based on your knowledge and experience within this organisation. Any information provided will be completely CONFIDENTIAL.

Opening questions

1. How is the performance of sales people measured in this organisation?
2. Is sales people's performance linked to incentive pay?
3. Could you please explain me your sales people's bonus scheme?
4. Could you please explain me how are your bonus performance targets set?

Follow on questions

5. What are your overall views on the performance targets used to assess sales people's performance?
6. How would you describe the effects that performance targets are having on sales people's behaviour? Could you give me some examples?
7. To what extent do you think your sales people's performance targets encourage them to take risks or to go 'the extra mile'?
8. How would you describe "risk-taking behaviour" in your business? Could you give me some examples?
9. How would you describe your organisational culture? To what extent does it encourage risk taking behaviours?
10. What do you think motivates sales people?
11. How would you describe a successful sales person in this company?

Appendix C: Strengths and weaknesses of incentive systems, performance measures and targets of case study companies

*Table 13. **Media Company:** Strengths and weaknesses of incentive system, performance measures and targets*

Strengths	Weaknesses
• Measures are few in number; they are considered to be objective, reliable, clear and linked to the overall firm's strategy.	• Performance targets are all financial-based. These types of targets are creating a very short-term focus in the sales force. Creativity and project quality are suffering and firm's long-term success is being jeopardised.
• Sales people are very aware of their targets. They have a clear understanding of their meaning.	
• Everyone in the sales teams is entitled to have a bonus.	• Sales people feel they do not have control over their targets as revenue is highly influenced by market factors.
• The company uses team bonuses and this type of bonus is perceived to be adequate as sales people work in teams and their individual tasks are interrelated.	• Targets are perceived as unattainable and imposed. This is having a direct impact on sales people's motivation.
• The bonus payout frequency is in line with the industry, the sales process, and the requirements of the sales people.	• Sales people have difficulties understanding how the bonus scheme works.
• The targets and the bonus scheme are reviewed periodically.	• Targets and bonus seem to be perceived as unfair.
• The bonus plan is complemented with specific recognition plans that encourage creativity. These plans are very well perceived by the sales force.	• The size of the bonus is not calculated as a percentage of sales people's salary. It is a fixed amount.

| **Interesting quotes about the impact of performance measures, targets and incentives.** | • "The threat of not hitting target sometimes compromises our creative output. Rather than spend time of positioning ourselves creatively the pressure is on us to make money first."
• "Customer orientation is not there at the moment […] we focus too much on revenue and sometimes we forget about our clients."
• "When the targets seem achievable they improve the atmosphere and motivation. They have the adverse effect when targets are known to be unachievable."
• "When we succeed people are happy because they get a bonus but I always feel that the amount of happiness delivered by meeting targets is nothing like as strong as the degree of unhappiness delivered by missing target".
• "I think in general it is better to have team and company targets as this fosters more of a spirit of cooperation".
• "We've got a bonus structure that is very complex. It's not actually, but I don't understand it." |

*Table 14. **Gas Company:** Strengths and weaknesses of incentive system, performance measures and targets*

Strengths	Weaknesses
▪ Performance measures are aligned with business strategy ▪ Measures are periodically reviewed. ▪ Sales people seem to use their performance data in their decisions-making process. ▪ Performance targets are perceived as achievable. ▪ The data used for setting targets (e.g. past territory performance, forecasts, etc.) is perceived as reliable. ▪ The bonus scheme is perceived to be fair among sales people. ▪ The bonus scheme is periodically reviewed and updated.	▪ Sales people perceive that the measures and targets used to assess their performance are being imposed on them. ▪ Sales people need to pay attention to too many targets, which may be generating a "lack of strategic focus". ▪ Sales people perceive targets to be unfair as they do not take into account the context of each territory. ▪ Sales people have difficulties understanding how their performance measures, targets and bonuses are calculated. ▪ The bonus performance-payout relationship is inappropriate taking into account the market in which the company operates. ▪ There seems to be overlaps between the performance measures used to determine bonuses and the performance measures used in the sales people's performance appraisal. Some things are measured twice. ▪ The way in which the bonus results are communicated is perceived as ambiguous. Little information is provided about where each of the bonus percentages comes from. Then, sales people do not understand how bonuses are being calculated.
Interesting quotes about the impact of performance measures, targets and incentives.	▪ "I don't really understand how I can truly affect my bonus. There are external factors […] that can severely reduce my bonus of which I have no control. Reports are available and like most things in this organisation if there's a hard way to produce things we can find it!" ▪ "[Target setting] is generally fair although some measures appear to be in the hands of the gods." ▪ "Too many targets that you have to keep reminding yourself of what they all are, particularly with the non sales focused targets" ▪ "There is no negotiation; everybody is the same so everybody would have the same key performance indicators and targets, which I feel is very unfair. Not all the territories have the same potential" ▪ "The problem is that the business only focuses on the scorecard and they are not paying attention to the other activities we do and record in our monthly report" ▪ "I believe at the moment we are doing two different roles (traditional sales and account management) and we are only being measured in one (sales)" ▪ "As you can see… what influence do I have on my contribution target. I don't even know what it is yet!" ▪ "Stretching targets are set - sometimes by those without market knowledge which can lead to unrealistic targets." ▪ "If you do your best one year, you know it's going to penalise you in the following year" ▪ "KPI`s are making co-operation between departments and colleagues difficult as some targets are the same and we are going for the same target but independently of each other."

*Table 15. **Cement Company:** Strengths and weaknesses of incentive system, performance measures and targets*

Strengths	Weaknesses
▪ The measures this company uses to assess sales people's performance are: clear/easy to understand; objective; perceived as fair; few in number, and periodically reviewed.	▪ The performance measures used for pay purposes are mainly sales volume and revenue based (there are other measures or performance not linked to pay such as calls made). These measures are not perceived to be the 'right' ones (e.g. customer retention and market share are critical for this company and they are not being measured), and they are not strategically aligned with the measures used by other departments (e.g. production). ▪ Targets are perceived to be unachievable, and they are not reviewed periodically. ▪ Sales people perceive that their targets are being 'given' to them and that they have little control over them. ▪ Sales people have difficulties understanding their performance targets and their bonus scheme. ▪ The performance targets linked to the bonus scheme do not seem to be having an impact on sales people's decision-making process or behaviour.
Interesting quotes about the impact of performance measures, targets and incentives.	▪ "Targets are set which most people can only influence in a very minor way, if at all - therefore virtually handicapping the person concerned" ▪ "People work the system, they put down in their call reports that they've called and they haven't called" ▪ "When unrealistic targets are set, or when targets are imposed that you have no control over, it is often de-motivating" ▪ "Targets that sales people have had no influence in setting or are unable to achieve are de-motivational and lead to a sales force that is 'coasting' rather than 'striving' for better performance." ▪ "Personally I do not take too much notice of targets as they are not realistically achievable". ▪ "Targets are imposed by the company without any discussion or involvement of the sales person". ▪ "Overall there seems to be little interest, leading to a lack of motivation to achieve the targets and sometimes resentment based on the opinion that another part of the team has an 'easier' target set." ▪ "The sales people have special product sales targets. These are constantly not met by most sales people. Nothing is talked about when we meet to improve these figures. These measures should be used not only as a measurement tool but also to identify weaknesses in our teams." ▪ "Not informed on how measures and targets are performing until period is over, this has a negative effect." "By the time we are told what the target it is half the year has gone." ▪ "I believe the bonus scheme is a waste of time, as we have no real control over our targets".

*Table 16. **High Street Bank:** Strengths and weaknesses of incentive system, performance measures and targets*

Strengths	Weaknesses
▪ Performance is assessed according to different dimensions: An operational dimension and a financial dimension. ▪ This company not only assess what performance has been achieved by each sales person, it also looks at how this performance has been achieved. ▪ Performance measures are perceived to be objective and aligned with the company business strategy. ▪ Sales people use the information extracted from their performance measures for decision-making purposes. ▪ Every sales person perfectly understands how their performance is being assessed. ▪ Sales people think that the performance measures they have are the appropriate ones. ▪ The performance data use is perceived to be highly reliable. ▪ All sales people are eligible to receive a bonus based on their performance according to four key performance measures. ▪ Apart from the sales bonus scheme, this company has numerous recognition plans and contest that are positively perceived by sales people.	▪ Some performance measures are perceived to be unfair as they favour specific sales territories. ▪ Sales people have limited control over some of their performance measures as they are highly influenced by market factors. ▪ Sales people perceived their targets to be extremely difficult to achieve. ▪ Sales people have the perception that 'the more you achieve the harder your target gets'. This perception reflects issues related with the 'ratchet effect'. ▪ This company takes into account a variety of factors in order to set more equitable targets for its sales people. However, sales people perceive that the targets are only based on past performance and that they are unfair for some individuals, especially those that over-achieve their targets. This relates back to the ratchet effect. ▪ Targets are perceived to be "given". Sales people do not seem to feel ownership of their targets. ▪ The targets review period is considered to be too short (monthly). This may be affecting sales people's planning process. ▪ The company has two bonus structures, even though every sales person has the same role. One bonus structure is for new employees and the other is for people that have been with the company for a long time. The bonus structure for those that have been with the company for a long time has a cap at 120% of target. Sales people under this structure perceive that the cap des-motivate them to over-achieve their targets. ▪ Sales people perceive the bonus system as difficult to understand. The measures use to determine pay changes too frequently. ▪ The bonus is based on individual performance only and this is seen as a barrier for knowledge sharing among sales people. ▪ This company complements its bonus scheme with recognition plans and performance contests, which are highly valued by sales people. However, they have difficulties recognising all the different plans and contests available and their individual purposes.
Interesting quotes about the impact of performance measures, targets and incentives.	▪ "If you work very hard and do very well you can be sure your target will be increased. Why bother? However if you just do what is necessary and no more your target will stay as is or decrease. Very unfair system." ▪ "Encouraging dysfunctional behaviour. (1) I won't go the extra mile because targets will be increased as a result. (2) I won't push to achieve over 130% of target. Because the bonus goes up in 10% increments after 130%. Should be structured to drive higher achievement." ▪ "If you are above target you feel really good about yourself and constantly have a 'spring in your step'. If you are below target it has the opposite effect." ▪ "Targets in general give the sort of focus, which we all respond to. Some see them as goals to reach others see them as pressure".

Appendix D: Study questionnaire

Cranfield School of Management Questionnaire

Dear Respondent,

The purpose of this survey is to examine the impact of performance targets on sales people's behaviour. The overall research to which this survey belongs is sponsored by CIMA (Chartered Institute of Management Accountants).

Please read all the questions carefully and be as accurate as possible. The information you enter will be completely CONFIDENTIAL. Responses will only be reported based on averages. The estimated completion time is 15 minutes.

Thank you for your participation!

Best wishes,

Monica Franco

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THANK YOU VERY MUCH FOR YOUR COOPERATION!!!!!

Cranfield School of Management Questionnaire

Reward philosophy

Please indicate to what extent the following items apply to you.

		Strongly Disagree	Disagree	Neither Disagree/ Agree	Agree	Strongly Agree
a.	My base pay is dependent upon my work performance	☐	☐	☐	☐	☐
b.	My bonus is dependent upon my work performance	☐	☐	☐	☐	☐
c.	My boss will give me special recognition if my work performance is above target.	☐	☐	☐	☐	☐
d.	My boss will increase my job responsibilities if my performance results are above target.	☐	☐	☐	☐	☐
e.	Performance results above target are likely to affect my job promotion.	☐	☐	☐	☐	☐
f.	Performance results below target are likely to affect my employee status (i.e. termination).	☐	☐	☐	☐	☐

Variable pay/bonus (CASH payments only)

Please include the corresponding percentage in the blanks below.

a. If I achieve my performance targets, this quarter my bonus will be _____ % of my base pay.

b. According to my anticipated level of performance, this quarter my bonus will be _____ % of my base pay.

		Strongly Disagree	Disagree	Neither Disagree/Agree	Agree	Strongly Agree
Please indicate to what extent the following items apply to you.						
c.	My bonus is linked to a set of organisational performance targets	☐	☐	☐	☐	☐
d.	My bonus is linked to a set of business unit/team performance targets	☐	☐	☐	☐	☐
e.	My bonus is linked to a set of individual performance targets	☐	☐	☐	☐	☐
f.	My bonus is linked to internal financial performance targets (e.g. profit, revenues, cost)	☐	☐	☐	☐	☐
g.	My bonus is linked to external financial performance targets (e.g. market share, stock value)	☐	☐	☐	☐	☐
h.	My bonus is linked to internal non-financial performance targets (e.g. productivity, safety, employee satisfaction)	☐	☐	☐	☐	☐
i.	My bonus is linked to external non-financial performance targets (e.g. customer satisfaction, quality of service, environmental or community performance targets)	☐	☐	☐	☐	☐

Please indicate to what extent the following items apply to you.	Strongly Disagree	Disagree	Neither Disagree/ Agree	Agree	Strongly Agree
j. My bonus is mainly determined by how well I achieve my financial performance targets	□	□	□	□	□
k. My bonus is mainly determined by how well I perform according to my boss' opinion	□	□	□	□	□
l. My bonus performance targets are difficult to achieve	□	□	□	□	□
m. I actively participate in the setting of my bonus performance targets	□	□	□	□	□
n. I have control/influence over my bonus performance targets	□	□	□	□	□
o. I take actions based on my bonus performance targets	□	□	□	□	□
p. My bonus performance targets provide me with information about the results of my actions	□	□	□	□	□
q. Based on my current performance, this quarter I will be above my performance targets	□	□	□	□	□

Risk style

Please answer the following five items by checking what you would feel comfortable with

□	a1. An 80% chance of winning £4000, or	□	a2. Receiving £3200 for sure
□	b1. Receiving £3000 for sure, or	□	b2. A 20% chance of winning £15000
□	c1. A 90% chance of winning £2000, or	□	c2. Receiving £1800 for sure
□	d1. Receiving £1600 for sure, or	□	d2. A 10% chance of winning £16000
□	e1. A 50% chance of winning 5000, or	□	e2. Receiving £2500 for sure

Organisation's cultural risk values

Please indicate to what extent the following items apply to your organisation.	Strongly Disagree	Disagree	Neither Disagree/ Agree	Agree	Strongly Agree
a. My organisation is quick to use improved work methods that are developed by workers.	□	□	□	□	□
b. In my organisation, developing one's own ideas is encouraged for the improvement of the corporation.	□	□	□	□	□
c. Money is often available to get new project ideas off the ground.	□	□	□	□	□
d. People are often encouraged to take calculated risks with new ideas around here.	□	□	□	□	□
e. In this organisation we seek to learn and develop from errors.	□	□	□	□	□
f. This organisation supports many small and experimental projects realizing that some will undoubtedly fail.	□	□	□	□	□

Work discretion

Please indicate to what extent the following items apply to you.

		Strongly Disagree	Disagree	Neither Disagree/ Agree	Agree	Strongly Agree
a.	This organisation provides freedom to use my own judgment.	☐	☐	☐	☐	☐
b.	This organisation provides the chance to do something that makes use of my abilities.	☐	☐	☐	☐	☐
c.	I have the freedom to decide what I do in my job.	☐	☐	☐	☐	☐
d.	I have much autonomy in my job and I am left on my own to do my own work.	☐	☐	☐	☐	☐
e.	I believe my employment security is at risk	☐	☐	☐	☐	☐

Time availability

Please indicate to what extent the following items apply to you.

		Strongly Disagree	Disagree	Neither Disagree/ Agree	Agree	Strongly Agree
a.	During the past three months, my work load was too heavy to spend time on developing new ideas	☐	☐	☐	☐	☐
b.	I always seem to have plenty of time to get everything done	☐	☐	☐	☐	☐
c.	I have just the right amount of time and work load to do everything well	☐	☐	☐	☐	☐
d.	I feel that I am always working with time constraints on my job	☐	☐	☐	☐	☐

Organizational boundaries

Please indicate to what extent the following items apply to you.

		Strongly Disagree	Disagree	Neither Disagree/ Agree	Agree	Strongly Agree
a.	On my job I have no doubt of what is expected of me	☐	☐	☐	☐	☐
b.	There is little uncertainty in my job	☐	☐	☐	☐	☐
c.	My job description clearly specifies the standards of performance on which my job is evaluated	☐	☐	☐	☐	☐
d.	I clearly know what level of work performance is expected from me in terms of amount, quality, and timeliness of output	☐	☐	☐	☐	☐
e.	My supervisor helps me develop my career plans	☐	☐	☐	☐	☐
f.	My supervisor provides me with ongoing feedback on my work performance	☐	☐	☐	☐	☐
g.	My supervisor is a constant source of support	☐	☐	☐	☐	☐
h.	My peers are a constant source of support	☐	☐	☐	☐	☐

Organisational commitment

Please indicate to what extent the following items apply to you.

		Strongly Disagree	Disagree	Neither Disagree/ Agree	Agree	Strongly Agree
a.	I am quite proud to be able to tell people who it is I work for	☐	☐	☐	☐	☐
b.	I sometimes feel like leaving this employment for good	☐	☐	☐	☐	☐
c.	I'm not willing to put myself out just to help the organization	☐	☐	☐	☐	☐
d.	Even if the firm were not doing too well financially, I would be reluctant to change to another employer	☐	☐	☐	☐	☐
e.	I feel myself to be part of the organization	☐	☐	☐	☐	☐
f.	In my work I like to feel I am making some effort, not just for myself but for the organization as well	☐	☐	☐	☐	☐
g.	The offer of a bit more money with another employer would not seriously make me think of changing my job	☐	☐	☐	☐	☐
h.	I would not recommend a close friend to join our staff	☐	☐	☐	☐	☐
i.	To know that my own work had made a contribution to the good of the organization would please me	☐	☐	☐	☐	☐

What are your overall views on the performance measures and targets used to assess sales people's performance?
_____

How would you describe the effects that performance targets are having on sales people's behaviour? Please give us some examples
_____

My gender is

☐ Male   ☐ Female

I am _____years old

My marital status is

☐ Married   ☐ Divorced   ☐ Separated   ☐ Single   ☐ Other

Number of children _____

I have worked for this company _____years

My department name is_____

I am based in _____

My job title is _____

I have worked in this job _____ years

My annual family disposable income is….

☐ Less than £15,000
☐ £15,001 - £30,000
☐ £30,001-£45,000
☐ £45,001-£60,000
☐ More than £60,000

Appendix E: Factor and reliability analyses of key study variables

Organisation's cultural risk values

This variable assesses the extent to which the organisational culture encourages employees to take risks. This variable is measured using six items extracted from Hornsby et al. (2000). The results of the factor analysis (using Varimax rotation) and reliability analysis of this variable are presented in the table below.

Table 17. Factor and reliability analysis of ORGANISATION'S CULTURAL RISK VALUES

Q3. Organisation's cultural risk values	Factor 1
a. My organisation is quick to use improved work methods that are developed…	.781
b. In my organisation, developing one's own ideas is encouraged…	.788
c. Money is often available to get new project ideas off the ground.	.719
d. People are often encouraged to take calculated risks with new ideas around here.	.801
e. In this organisation we seek to learn and develop from errors.	.688
f. This organisation supports many small and experimental projects realizing…	.698
Kaiser-Meyer-Olkin	.859
Eigenvalues	3.349
Cronbach's alpha	.841

Work discretion

In the questionnaire, this variable measures the extent to which sales people have autonomy in decision making. The variable is measured using four items extracted from Hornsby et al. (2000). The results of the factor analysis (using Varimax rotation) and reliability analysis of this variable are presented in the table below.

Table 18. Factor and reliability analysis of WORK DISCRETION

Q4. Work discretion	Factor 1
a. This organisation provides freedom to use my own judgment.	.790
b. This organisation provides the chance to do something that makes…	.799
c. I have the freedom to decide what I do in my job.	.838
d. I have much autonomy in my job and I am left on my own to do my…	.766
Kaiser-Meyer-Olkin	.773
Eigenvalues	2.553
Cronbach's alpha	.810

Time availability

This variable assesses the extent to which sales people do not have role overload. The variable is measured using four items extracted from Hornsby et al. (2000).

The results of the factor analysis (using Varimax rotation) and reliability analysis of this variable are presented in the table below.

Table 19. Factor and reliability analysis of TIME AVAILABILITY

Q5. Time availability	Factor 1
a. During the past three months, my work load was too heavy to spend time …	.792
b. I always seem to have plenty of time to get everything done	.844
c. I have just the right amount of time and work load to do everything well	.842
d. I feel that I am always working with time constraints on my job	.665
Kaiser-Meyer-Olkin	.730
Eigenvalues	2.491
Cronbach's alpha	.788

Role clarity

The objective of this variable is to measure the extent to which sales people have a clear idea of what is expected of them. The variable is assessed using four items extracted from Hornsby et al. (2000). The results of the factor analysis (using Varimax rotation) and reliability analysis of this variable are presented in the table below.

Table 20. Factor and reliability analysis of ORGANISATIONAL BOUNDARIES – ROLE CLARITY

Q6. Organisational boundaries – Role clarity	Factor 1
a. On my job I have no doubt of what is expected of me	.638
b. There is little uncertainty in my job	.616
c. My job description clearly specifies the standards of performance on which…	.863
d. I clearly know what level of work performance is expected from me in terms…	.834
Kaiser-Meyer-Olkin	.703
Eigenvalues	2.228
Cronbach's alpha	.711

Support

This variable examines the extent to which support from supervisors and peers is available in the organisation. This variable is assessed with four items adapted from Ito and Brotheridge (2005). The results of the factor analysis (using Varimax rotation) and reliability analysis of this variable are presented in the table below.

Table 21. Factor and reliability analysis of ORGANISATIONAL BOUNDARIES – SUPPORT

Q6. Organisational boundaries – Support	Factor 1
e. My supervisor helps me develop my career plans	.850

Q6. Organisational boundaries – Support	Factor 1
f. My supervisor provides me with ongoing feedback on my work performance	.851
g. My supervisor is a constant source of support	.849
h. My peers are a constant source of support	.601
Kaiser-Meyer-Olkin	.754
Eigenvalues	2.528
Cronbach's alpha	.804

Appendix F: Descriptive statistics

The following tables show the descriptive statistics obtained in the sales people's survey conducted in the four case study companies.

Table 22. Descriptive statistics of likert scale and continuous variables (all companies)

Variable/question	All companies					High Street Bank			Gas Company			Cement Company			Media Company		
	N	Min	Max	Mean	Std. Dev.	N	Mean	Std. Dev.	N	Mean	Std. Dev.	N	Mean	Std. Dev.	N	Mean	Std. Dev.
REWARD PHILOSOPHY																	
a. My base pay is dependent upon my work performance	95	1	5	2.78	1.23	23	2.74	1.21	22	2.73	1.08	22	2.68	1.32	28	2.93	1.33
b. My bonus is dependent upon my work performance	95	1	5	3.73	1.11	23	4.22	1.09	22	3.91	0.81	22	3.23	1.11	28	3.57	1.17
c. My boss will give me special recognition if my work performance is above target	95	1	5	3.25	1.08	23	3.30	1.15	22	3.05	1.13	22	2.86	1.04	28	3.68	0.90
d. My boss will increase my job responsibilities if my performance results are above target	95	1	5	2.95	0.96	23	2.91	0.90	22	2.68	0.95	22	2.73	0.94	28	3.36	0.95
e. Performance results above target are likely to affect my job promotion	95	1	5	3.09	0.98	23	3.04	0.88	22	3.14	1.08	22	2.82	0.91	28	3.32	1.02
f. Performance results below target are likely to affect my employee status (i.e. termination)	95	1	5	2.98	0.96	23	3.48	0.90	22	2.91	0.97	22	2.64	0.90	28	2.89	0.92
VARIABLE PAY/BONUS																	
c. My bonus is linked to a set of organisational performance targets	95	1	5	3.71	0.94	23	3.74	0.81	22	3.64	0.85	22	3.73	0.77	28	3.71	1.24
d. My bonus is linked to a set of business	95	1	5	3.83	0.87	23	3.48	0.79	22	3.55	0.91	22	3.73	0.88	28	4.43	0.57

	Variable/question	All companies					High Street Bank			Gas Company			Cement Company			Media Company		
	unit/team performance targets																	
e.	My bonus is linked to a set of individual performance targets	95	1	5	3.09	1.28	23	4.09	0.51	22	4.00	0.62	22	2.36	1.05	28	2.14	1.21
f.	My bonus is linked to internal financial performance targets	95	1	5	3.43	1.08	23	3.26	0.81	22	3.77	0.69	22	3.32	1.29	28	3.39	1.31
g.	My bonus is linked to external financial performance targets	95	1	5	2.25	0.96	23	2.74	1.10	22	2.32	0.72	22	1.82	0.85	28	2.14	0.93
h.	My bonus is linked to internal non-financial performance targets	95	1	5	2.24	0.95	23	2.57	0.99	22	2.68	0.89	22	1.95	0.72	28	1.86	0.93
i.	My bonus is linked to external non-financial performance targets	95	1	5	2.09	0.86	23	2.13	0.76	22	2.59	0.85	22	1.91	0.68	28	1.82	0.94
j.	My bonus is mainly determined by how well I achieve my financial performance targets	95	1	5	3.54	1.16	23	4.22	0.80	22	3.73	0.83	22	2.68	1.21	28	3.50	1.20
k.	My bonus is mainly determined by how well I perform according to my boss' opinion	95	1	5	2.41	1.10	23	2.39	0.89	22	3.64	0.73	22	1.91	0.61	28	1.86	1.04
l.	My bonus performance targets are difficult to achieve	95	1	5	3.43	0.88	23	3.65	0.71	22	3.50	0.80	22	3.55	1.14	28	3.11	0.79
m.	I actively participate in the setting of my bonus performance targets	95	1	5	2.28	1.16	23	1.91	1.04	22	2.27	1.03	22	2.36	1.18	28	2.54	1.32
n.	I have control/influence over my bonus performance targets	95	1	5	2.15	1.01	23	1.78	1.04	22	2.32	0.95	22	2.27	0.98	28	2.21	1.03
o.	I take actions based on my bonus performance targets	94	1	5	3.47	0.96	22	3.45	1.06	22	3.77	0.92	22	3.14	0.99	28	3.50	0.84
p.	My bonus performance	95	1	5	3.02	1.03	23	3.35	0.98	22	3.27	1.03	22	2.50	0.96	28	2.96	1.00

Variable/question		All companies					High Street Bank			Gas Company			Cement Company			Media Company		
	targets provide me with information about the results of my actions																	
q.	Based on my current performance, this quarter I will be above my performance targets	95	1	5	2.95	0.98	23	3.43	0.90	22	3.14	0.77	22	2.36	0.90	28	2.86	1.04
	ORGANISATION'S CULTURAL VALUES																	
a.	My organisation is quick to use improved work methods that are developed by workers	95	1	5	2.89	1.05	23	2.74	0.92	22	2.32	0.99	22	2.59	0.91	28	3.71	0.81
b.	In my organisation, developing one's own ideas is encouraged for the improvement of the corporation	95	1	5	3.52	0.97	23	3.22	0.90	22	3.27	1.03	22	3.45	0.91	28	4.00	0.86
c.	Money is often available to get new project ideas off the ground	95	1	5	2.53	0.97	23	2.22	0.95	22	2.32	0.84	22	2.50	0.96	28	2.96	0.96
d.	People are often encouraged to take calculated risks with new ideas around here	95	1	5	2.74	0.95	23	2.35	0.78	22	2.45	0.86	22	2.36	0.79	28	3.57	0.74
e.	In this organisation we seek to learn and develop from errors	95	1	5	3.31	0.96	23	2.91	0.90	22	2.86	1.04	22	3.50	0.91	28	3.82	0.67
f.	This organisation supports many small and experimental projects realizing that some will undoubtedly fail	95	1	5	2.73	0.94	23	2.39	0.72	22	2.73	0.94	22	2.45	0.91	28	3.21	0.96

WORK DISCRETION

Variable/question	All companies					High Street Bank			Gas Company			Cement Company			Media Company		
a. This organisation provides freedom to use my own judgment	95	1	5	3.72	0.90	23	3.48	1.20	22	3.55	1.01	22	3.77	0.75	28	4.00	0.47
b. This organisation provides the chance to do something that makes use of my abilities	95	1	5	3.68	0.82	23	3.78	0.80	22	3.18	0.96	22	3.86	0.64	28	3.86	0.71
c. I have the freedom to decide what I do in my job	95	1	5	3.52	0.93	23	3.43	0.99	22	3.18	1.10	22	3.77	0.75	28	3.64	0.83
d. I have much autonomy in my job and I am left on my own to do my own work	95	1	5	3.66	0.89	23	3.26	1.14	22	3.73	1.03	22	3.91	0.61	28	3.75	0.65
e. I believe my employment security is at risk	95	1	5	2.78	1.07	23	2.78	1.17	22	3.50	1.10	22	2.41	0.73	28	2.50	0.96
TIME AVAILABILITY																	
a. During the past three months, my work load wasn't too heavy to spend time developing new ideas	95	1	5	2.56	1.05	23	2.78	1.00	22	2.05	0.72	22	2.64	1.18	28	2.71	1.12
b. I always seem to have plenty of time to get everything done	95	1	4	2.18	0.80	23	2.09	0.79	22	2.09	0.53	22	2.00	0.76	28	2.46	0.96
c. I have just the right amount of time and work load to do everything well	95	1	4	2.48	0.84	23	2.57	0.90	22	2.36	0.58	22	2.27	0.88	28	2.68	0.90
d. I feel that I am always working with no time constraints on my job	95	1	5	2.53	0.87	23	2.35	0.71	22	2.23	0.87	22	2.82	0.80	28	2.68	0.98
ORGANISATIONAL BOUNDARIES																	

Variable/question	All companies					High Street Bank			Gas Company			Cement Company			Media Company		
a. On my job I have no doubt of what is expected of me	93	1	5	3.88	0.83	23	4.13	0.55	22	3.91	0.75	22	3.86	0.83	26	3.65	1.06
b. There is little uncertainty in my job	93	1	5	3.18	1.00	23	3.48	0.90	22	3.05	1.09	22	3.32	0.89	26	2.92	1.06
c. My job description clearly specifies the standards of performance on which my job is evaluated	93	1	5	3.49	0.83	23	3.61	0.72	22	3.55	0.60	22	3.55	1.01	26	3.31	0.93
d. I clearly know what level of work performance is expected from me in terms of amount, quality, and timeliness of output	93	1	5	3.68	0.75	23	3.83	0.72	22	3.82	0.39	22	3.45	0.91	26	3.62	0.85
e. My supervisor helps me develop my career plans	93	1	5	3.18	0.99	23	2.96	1.02	22	3.09	1.27	22	3.18	0.73	26	3.46	0.86
f. My supervisor provides me with ongoing feedback on my work performance	93	1	5	3.52	0.94	23	3.57	1.08	22	3.59	0.85	22	3.27	0.98	26	3.62	0.85
g. My supervisor is a constant source of support	93	1	5	3.62	0.90	23	3.39	1.16	22	3.64	0.85	22	3.82	0.73	26	3.65	0.80
h. My peers are a constant source of support	93	2	5	3.76	0.77	23	3.70	0.82	22	3.86	0.64	22	3.59	0.85	26	3.88	0.77
ORGANISATIONAL COMMITMENT																	
a. I am quite proud to be able to tell people who it is I work for	95	2	5	4.18	0.68	23	4.04	0.64	22	4.27	0.83	22	4.14	0.56	28	4.25	0.70
b. I sometimes feel like DON'T leaving this employment for good	95	1	5	3.21	1.01	23	3.17	1.11	22	3.14	0.94	22	3.50	1.01	28	3.07	0.98
c. I'm willing to put my	95	1	5	4.14	0.75	23	4.09	0.67	22	4.00	1.02	22	4.27	0.55	28	4.18	0.72

Variable/question		All companies					High Street Bank			Gas Company			Cement Company			Media Company		
	self out just to help the organisation																		
d.	Even if the firm were not doing too well financially, I would be reluctant to change to another employer	95	1	5	3.36	0.98	23	3.00	0.90	22	3.68	0.95	22	3.64	1.00	28	3.18	0.94
e.	I feel myself to be part of the organisation	95	1	5	3.86	0.81	23	3.74	0.96	22	3.77	0.75	22	3.95	0.65	28	3.96	0.84
f.	In my work I like to feel I am making some effort, not just for myself but for the organisation as well	95	2	5	4.19	0.66	23	4.22	0.67	22	3.91	0.75	22	4.27	0.46	28	4.32	0.67
g.	The offer of a bit more money with another employer would not seriously make me think of changing my job	95	1	5	3.45	0.97	23	3.26	1.05	22	3.41	1.05	22	4.00	0.62	28	3.21	0.92
h.	I would recommend a close friend to join our staff	95	1	5	3.68	0.98	23	3.74	0.92	22	3.68	1.21	22	4.00	0.76	28	3.39	0.96
i.	To know that my own work had made a contribution to the good of the organisation would please me	95	2	5	4.23	0.59	23	4.26	0.54	22	4.18	0.73	22	4.18	0.39	28	4.29	0.66
Age		90	21	62	39.25	10.68	20	40.05	11.65	21	42.00	8.11	21	47.00	9.74	28	30.82	5.93
Number of children		83	0	7	1.28	1.36	20	1.55	1.73	17	14.41	8.88	21	1.71	1.19	24	0.29	0.55
Years in this company		81	0.3	37.	10.17	8.99	20	10.58	10.56	18	1.78	1.22	21	13.81	7.86	23	3.36	2.97
Experience in this job		88	0	22	5.12	5.27	21	5.31	5.45	19	7.87	5.64	21	6.55	5.95	27	1.93	1.79