



HOT SPOTS IN THE SUPPLY CHAIN:

DEVELOPING AN UNDERSTANDING OF WHAT MAKES SOME RETAIL STORES VULNERABLE TO SHRINKAGE

A WHITE PAPER FOR ECR EUROPE

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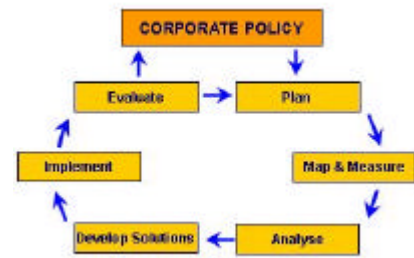
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Executive Summary

Stock loss in Europe's consumer goods / grocery industry is an astounding €18 billion per year, causing the typical retailer to lose one-third of their profits. Since 1999 ECR Europe has worked to show how companies can collaborate to address this issue. The success of the ECR approach is demonstrated in the concrete results achieved by companies that applied the shrinkage reduction roadmap, shown here.



Stock loss is not evenly spread across the industry, for example we know that some products suffer significantly higher loss than others. Recent advances in our understanding revealed that loss is also concentrated in particular parts of the supply chain and in a small number of retail stores. In order to understand this phenomenon of 'hot stores' ECR Europe commissioned researchers from Cranfield School of Management and the University of Leicester to study this subject, in collaboration with ECR Europe's Shrinkage Group.

Findings

Following an extensive study of data from retailers across Europe and an in-depth investigation of four retail chains, the research team drew two key conclusions:

- **High shrinkage in hot stores is mostly a function of poor management and a lack of adherence to procedures.**
- **The environment in which a store is located affects shrinkage but good management responds to the context and develops effective strategies to meet the challenge.**

These findings highlight the status of management decisions and behaviour as the primary drivers of shrinkage. The impact of threats from external sources, such as shoplifting, is acknowledged however the emphasis is placed firmly on the quality of policy making and deployment at all levels of management, not just at the stores. Where good managers were found to respond to their environment and had developed effective strategies to meet the challenge, four characteristics could be identified. These were:

- Accountability
- Attitude
- Action
- Audit

Taken together these characteristics have been termed, "The 4 'A's to Preventing Stores Becoming Hot," and are the key enablers to success in loss prevention.

These characteristics need to be consistently deployed with effort focussed on high loss **product** in high loss **places**. This means that management teams need to deploy their **people** to identify and mitigate risks in business **processes** and ensure these processes are reliable and robust.



This approach is reinforced by adhering to the ECR principle that shrinkage reduction requires collaboration between trading partners along the supply chain. It also highlights shrinkage as a key opportunity to drive profit growth under the concept of, "lose less and sell more," and make solid progress to the overall goal of improved on-shelf availability and shopper satisfaction

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1 Introduction

The purpose of this White Paper is twofold: to introduce the shrinkage reduction work of ECR Europe from 1999 – 2002 to a wider audience; and to present findings from new research carried out on behalf of ECR Europe in 2002-3. This focused on developing a greater understanding of the factors that make particular stores within a retail estate more vulnerable to shrinkage – the so called ‘hot store’ phenomena. Traditional thinking on this topic has tended to focus on the nature of the environment within which the store operates as being the key determinant in explaining levels of shrinkage – areas with high crime and unemployment levels together with relatively poor housing and social cohesion are much more likely to play host to stores with above average rates of loss. Others however, have suggested that the means by which a store is managed, particularly the way in which staff are motivated and controlled, and the extent to which the management team understand the problems present within the store, may be more influential in predicting rates of shrinkage than social and economic geography.

The former traditionalist view depicts the store as a victim of its circumstances, unable to resist the incessant tide of criminality washing through its doors, while the latter revisionist interpretation reflects a more interventionist proactive approach to understanding the problem, recognising the importance of people, process control and problem management. Through the use of original research undertaken across Europe, this report presents a fresh approach to understanding the hot store phenomena and seeks to enlighten the debate over the relative importance of these often-polarised views.

The paper begins by reviewing the context within which this research took place, particularly the problem of shrinkage and its management, and the existing research that has been carried out to date on the concept of non-randomised distribution of risk (such as crime hot spots, hot products and hot processes). It then charts the methodology adopted by the authors to complete the study. It continues with a detailed review of the findings from the research focusing on the data collected from across Europe and from the four case study companies. It concludes with a summary of the key findings together with recommendations for future work in this area.

Commissioned by Efficient Consumer Response Europe (ECR Europe), this research makes use of quantitative data collected from eighteen European retail companies together with richer, qualitative information from field research conducted in four of these companies. The authors are grateful to the company staff who contributed their time, expertise and knowledge to assist in this research and particularly appreciate the assistance of the staff in the four case study companies and the members of the ECR Europe Shrinkage Group.

2 Background

The ECR Europe Shrinkage Group has been active in addressing the issue of shrinkage since 1999. This group acts as a steering committee to the research commissioned by ECR Europe over this period. To this end it has proposed, supervised and supported work that has: defined shrinkage, understood its root causes; developed a methodology for addressing this problem; and conducted a series of case study applications of this methodology. A précis of the understanding gained through to this work is presented below.

Understanding Shrinkage

The rather euphemistic term ‘shrinkage’ is used by the business world to describe the losses that occur while they attempt to complete the deceptively simple task of producing, distributing and eventually selling goods to consumers. The term covers an enormous gamut of events, which can for the most part be broken down into two types: malicious and non-malicious. Malicious events represent those activities that are carried out to intentionally divest an organisation of goods, cash, services and ultimately profit. Non-malicious events occur within and between organisations that unintentionally cause loss, through poor processes, mistakes, bad design and so on. Like the former, this has a dramatic impact upon the profitability of an organisation.

The importance of perceiving the intentionality of a shrinkage occurrence is the impact it has upon the approach adopted to tackle it. Malicious losses are intentional and occur deliberately with a degree of forethought. To a certain extent such losses occur when existing systems have been found to be vulnerable – sometimes by accident, often by ‘probing’ – and are duly ‘defeated’ by the offender. As such, remedial action to deal with some types of malicious activity will have a ‘half life’¹ where their effectiveness deteriorates over time as offenders find new ways to overcome them. Remedial actions can also lead to displacement where offenders target different products, locations, times or methods².

Unintentional shrinkage is usually less dynamic and more responsive to lasting ameliorative actions. For example, damage caused by loads shifting during transport can be addressed by employing new methods of pallet stacking and methods for restraining loads inside the vehicle. While they may require similar levels of vigilance (for instance to make sure staff are continuing to follow procedures) they are less liable to be anything like as evolutionary in nature as their malicious counterparts.

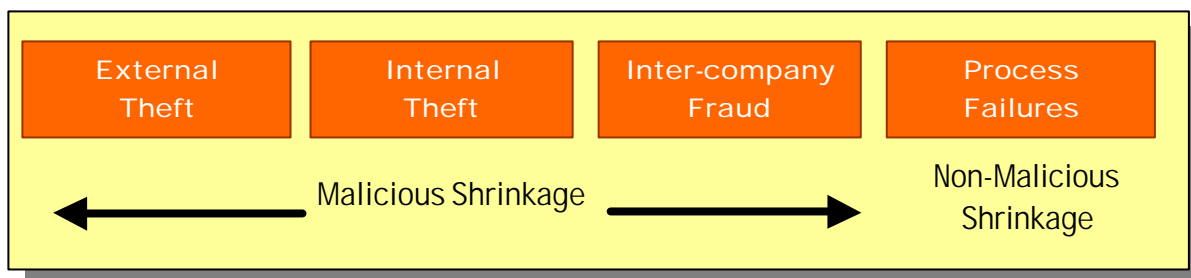
¹ Half life- the time in which an action degrades to half its effectiveness. Analogous to the rate of decay of a radioactive isotope

Defining Shrinkage

Opinions vary on a definition for shrinkage. Some take a very narrow perspective and limit it to the loss of stock only, choosing to exclude the loss of cash from an organisation, or consider it to relate only to the losses that cannot be explained – ‘unknown losses’ as they are usually referred to³. At the other end of the spectrum, some argue for a much more inclusive, broad ranging definition which encompasses both stock and cash, as well as the losses that result from shrinkage events – ‘indirect losses’ – such as out of stocks⁴ caused by shop theft, the sale of stolen goods on the ‘non-retail’ market⁵ or the production of counterfeit products. In addition, some feel that the expenditure incurred responding to stock loss should also be included when calculating the overall cost of shrinkage.

The recent work by the ECR Europe Shrinkage committee has developed a definition that has received relatively broad acceptance, which strikes a middle ground between the two, driven in part by the current limitations imposed upon the ability to accurately measure the impact of shrinkage upon organisations. It is based upon four categories of shrinkage encompassing both stock and cash and made up of external theft, internal theft, inter-company fraud and process failures. The first three can be regarded as malicious and intentional, while the fourth is non-malicious and an unintentional, but highly regrettable consequence of ineffective business processes, procedures and practices.

Figure 1 Key Categories of Shrinkage



² Clarke, R.V. (1995) ‘Opportunity-Reducing Crime Prevention Strategies and the Role of Motivation’, in P. Wilkstrom, R.V. Clarke, and J. McCord (Eds.) *Integrating Crime Prevention Strategies: Propensity and Opportunity*, Stockholm: National Council for Crime Prevention; Clarke, R.V. (1997) *Situational Crime Prevention: Successful Case Studies*, Albany, NY: Harrow and Heston.

³ Masuda, B. (1992) ‘Displacement vs Diffusion of Benefits and the Reduction of Inventory Losses in a Retail Environment’, *Security Journal*, Vol. 3, No. 3, pp. 131-136.

⁴ One study has suggested that between 7 to 10 percent of product may be out of stock at any one time, ECR Europe (2002) *Optimal Shelf Availability*, Brussels: ECR Europe.

⁵ Such as car boot sales or flea markets.

Size of the Problem

Recent research has once again demonstrated the extent of the problem of shrinkage for retailers and their suppliers throughout the world. In 2001, research sponsored by ECR Europe into the Fast Moving Consumer Goods sector (FMCG)⁶ calculated that the annual bill for shrinkage was 2.31 percent of turnover: 1.75 percent for retailers and 0.56 percent for manufacturers⁷. This equated to €8 billion for the industry as a whole, based upon an annual turnover of €24.4 billion⁸.

A similar study in Australasia, using the same methodology found that losses from shrinkage accounted for 1.73 percent, and amounted to Aus\$ 942 million⁹. In the USA, work by Hollinger has estimated that shrinkage costs the retail sector US\$ 30 billion a year, a figure equivalent to one-quarter of annual retail profits¹⁰. In some respects, there is nothing new about attempting to quantify the overall cost of stock loss¹¹ to the business world; the annual British Retail Consortium retail crime surveys provide a detailed breakdown on the extent and cost of the problem of crime against retailers in the UK, while similar initiatives in other European countries have tried to measure the problem as well¹².

While the definition of what constitutes ‘shrinkage’ or ‘stock loss’ varies between studies undoubtedly impacts upon their respective findings, the overriding conclusions are (1) that the extent of the problem is enormous and (2) that shrinkage is an issue which seems for the most part, extremely resilient to ameliorative actions. As one trading director recently put it, “We have had the same problem for twenty-five years – it doesn’t get any better, it only seems to get worse¹³.”

Trying to gather accurate data on the magnitude of different types of shrinkage has proved beyond current methodologies designed to measure the problem. This is because for retailers, the majority of losses remain unknown – losses are discovered after the event, usually through annual or biannual stock audits, making it impossible to answer the critical questions of what caused the

⁶ The term Fast Moving Consumer Goods Sector is known as the Consumer Packaged Goods sector (CPG) in the USA. This term is used here to mean those retailers and their suppliers who provide a range of goods sold primarily through supermarkets, and hypermarkets. The core of their business is providing ‘essentials’ such as various fresh and processed foodstuffs, but they also stock a wide selection of other goods as well including health and beauty products, tobacco, alcohol, clothing, some electrical items, baby products and more general household items. Examples of FMCG retailers include Auchan, Carrefour, Coop Italia, ICA, Interspar, Tesco and Wal*Mart. Examples of FMCG manufacturers include Allied Domecq, Bacardi-Martini, Colgate-Palmolive, Gillette, Henkel and Procter & Gamble.

⁷ Beck, A., Bilby, C. and Chapman, P. (2003) ‘Shrinkage in Europe: Stock Loss in the Fast Moving Consumer Goods Sector’, *Security Journal*, Vol. 15, No. 4, pp. 25-39; Beck, A., Chapman, P. and Peacock, C. (2003) *Shrinkage: A Collaborative Approach to Reducing Stock Loss in the Supply Chain*, Brussels: ECR Europe.

⁸ M+M Euro Trade (2000) *Trade Structures and the Top Retailers in the European Food Business*, Frankfurt: M+M Euro Trade.

⁹ ECR Australasia. (2002) *A Guide to Collaborative Loss Prevention*, Australia: ECR Australasia.

¹⁰ Hollinger, R. and Hayes, R. (2000) *National Retail Security Survey*, Gainesville, FL: University of Florida.

¹¹ The terms ‘shrinkage’ and ‘stock loss’ will be used interchangeably throughout this paper.

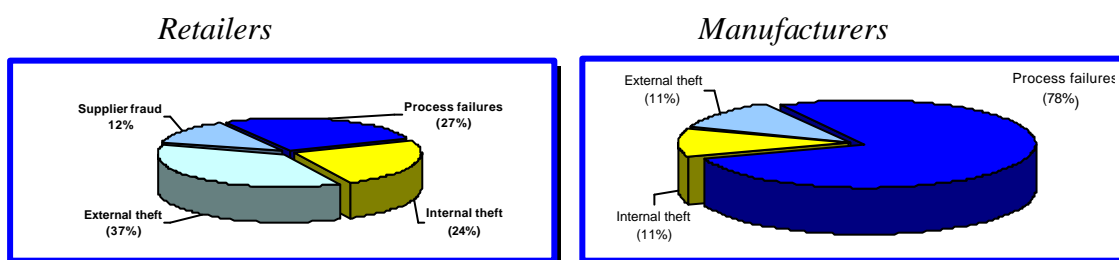
¹² In the UK see the annual reports by the British Retail Consortium on the costs of crime to the retail sector; and Mirrlees-Black, C. and Ross, A. (1995) *Crime Against Retail and Manufacturing Premises: Findings from the 1994 Commercial Victimization Survey*, Research Study Number 146, London: Home Office. In Germany see EuroHandelsinstitut (2000) *Inventurdifferenzen 2000: Ergebnisse einer aktuellen Erhebung*, Cologne: EuroHandelsinstitut; For data on theft only from European Retailers see Bamfield, J. (2002) *The European Retail Theft Barometer*, Nottingham: Centre for Retail Research.

¹³ This comment was made by a senior executive (who wishes to remain anonymous) for one of the UK’s largest food retailers.

loss, where did it happen and when. In the recent ECR survey, fifty-nine percent of retailer losses were unknown, while for manufacturers, the comparable figure was forty-one percent.

Given the lack of information linking losses to particular causes, most shrinkage measurement methodologies rely upon respondents, “Using their knowledge and experience to estimate what the breakdown between each type of loss might be¹⁴.” Clearly this moves any estimates of the causes of stock loss from the realms of hard data, usually provable and based upon evidence, to ‘soft’ data, something that is not based upon fact but reliant upon impressions, opinions and personal bias. This is an issue that this paper will return to below when managing shrinkage is considered. Whilst acknowledging this significant problem in determining the causes of stock loss, the 2001 ECR Europe study found that retailers and manufacturers allotted significantly different weight to the different categories of loss, as shown in Figure 2 below.

Figure 2 Perceived Causes of Stock Loss in the European FMCG Sector



For retail respondents, external theft was perceived as the main cause of stock loss (37%), followed by process failures (27%), internal theft (24%) and finally supplier fraud (12%). Taken together, theft was considered to account for nearly two thirds of all losses (61%), valued at €8 billion. In contrast, manufacturers identified process failures as the biggest culprit (78 %) of all losses. Both internal and external theft were thought to equally account for the remaining twenty two percent (11% each), although this still equates to €1 billion of losses due to malicious activities.

The differences between the two are very stark – retailers do not see any one cause as dominating their thinking, all four factors receive between twelve and thirty-seven percent of the total, while manufacturers believe that process failures dominate their stock loss problem.

¹⁴ This example is taken from the ECR Europe shrinkage questionnaire that was distributed to retailers and manufacturers in 2000.

Non-Malicious Shrinkage: Process Failures

It is difficult to overestimate the complexity of modern retailing and the globalisation of product manufacture and distribution. Consumers have become accustomed to having ready and almost continual access to products that originated many thousands of miles away from the eventual point of sale. In food retailing, seasonality now has little impact on availability as sophisticated and complex supply chains source products from around the globe. In addition, consumers have become more demanding in the quality and range of products they expect in their retail environment. Hence supermarkets regularly stock in excess of 20,000 SKUs¹⁵. In the case of hypermarkets the number of references stocked over a year can reach 160,000 when seasonal items are taken in to account. Clothing retailers are a good example of companies that regularly change most of their stock, this time to meet the vagaries of rapidly changing popular fashion. Arguably, all of this has made companies more profitable and given consumers an unprecedented shopping experience¹⁶. But this complex global production, distribution and retailing web comes at a price – that of organisational inefficiency in managing the myriad of processes required to make the system work.

Getting the right products to the right place, in the right condition at the right time and price, and linked to the right information, is the goal of modern retailing but when this fails it generates losses, which are defined as process failures or ‘Paper Shrink’¹⁷.

The 2001 ECR survey found that for retailers, process failures accounted for twenty-seven percent of all losses or €3.6 billion a year. For their suppliers, the percentage was much higher seventy-eight percent, but accounted for the same amount of money (€3.6 billion). Taken together, in Europe’s Fast Moving Consumer Goods sector, process failures cost €7.2 billion a year, or €19 million a day. In the US, it has been estimated that for every \$100 of shrinkage, \$17.50 could be due to process failures¹⁸. This is a significant price to pay for organisations not getting it right.

The key elements that contribute to process failures are:

Stock going out of date: product not being sold in time because too much was ordered; it was not discounted in time; or stock was not rotated properly.

Price reductions: stock being sold below the price originally envisaged; too much was ordered; stock had not been rotated properly; or expected sales targets had been overly ambitious.

¹⁵ There are some companies that stock far more, such as Walmart that has an estimated 120,000 SKUs.

¹⁶ Some may argue that the globalisation of manufacturing and retailing has had a detrimental effect upon local economies and helped to fuel a growing ‘wealth gap’ between the developing and developed worlds.

¹⁷ See Sullivan, M and Vince, C. (2001) ‘How Much are you Losing to Paper Shrink?’ *Retail Insights*, Vol. 10, No. 5.

¹⁸ Ibid.

Damage to stock: caused by the methods used to store and distribute products. This can include temperature sensitive produce such as foods.

Delivery errors: a combination of the wrong products being delivered to the wrong places at the wrong times. This can include the failure to record products transferred between stores.

Pricing errors: the incorrect pricing of product, either below the planned price or incorrectly discounted in connection with product promotions.

Scanning errors: store staff incorrectly scanning products on the shelves causing errors in the inventory; checkout staff forgetting to scan products; or incorrectly entering the product identification code.

Incorrect inventory checks: staff mis-counting product in the warehouse, in the storeroom or on the shelves, causing errors in the expected and actual levels of stock

Product promotion errors: products being sold at promotional prices when they should not be; associated products being sold at discounted prices when they should not be; or incorrect multi-buy discounts being applied.

Master file errors: incorrect entry of product type or quantities on the master inventory file. This can lead to companies thinking that they have more or less of a particular product than is currently in the supply chain.

Returns: products that have been legitimately returned by customers not re-entering the supply chain correctly.

Intra-company transfers: products being misplaced as they move between different parts of the organisation, such as between different retail stores.

Common to most process failures is that they are a consequence of two types of problem: a failure to *collect* information accurately and a failure to *communicate* information accurately and timely about the products currently within the supply chain. They are a failure to answer two simple questions: ‘what products do we have?’ and ‘where are they?’ Answers to these questions then enable the key questions of ‘what products do we need?’, ‘where do we need them to be?’ and ‘what price should we be charging for them?’ to be answered.

Process Failure and Opportunities for Malicious Loss

Perhaps one of the most important findings from our research is to highlight the link between process failure and malicious loss. The previous section contains a list of ways that a supply chain can go wrong. This list is far from conclusive. Indeed our fieldwork revealed hundreds of ways that supply chain processes can fail. Whilst these failures are innocent and non-malicious, every failure provides an opportunity for malicious loss. The opportunity is twofold as process failure provides:

- Opportunity for theft or fraud to occur
- Opportunity for the theft or fraud to go undetected

An example of this occurs when returned products are legitimately brought back to a store by customers but fail to re-enter the supply chain correctly. This situation regularly happens in good faith, for example because a store has started to stock more non-food lines, such as clothing. New categories such as this can have many more times the number of returned items than traditional categories but it is often the case that new processes and staff training are not introduced at the same time in anticipation of changes in shopper behaviour.

The failure to deal with returned products in a controlled manner results in items going astray. That is they are stored in the wrong places, miss their key selling season or become soiled. This confusion provides the opportunity for internal thieves to exploit the system. Theft of uncontrolled items is made easy as the loss of items is not noticed – it is simply normal for things to go missing so no-one suspects there is a theft problem. Because losses are not detected or are expected to occur no-one acts to follow up events and determines what is going wrong. This allows theft and fraud to continue without interference. This situation can continue indefinitely as long as it remains at a tolerable level. The skilful thief is therefore a person who understands where the threshold of tolerance lies. To help them, many organisations are kind enough to have rules such as, ‘2% losses are acceptable’ or, ‘losses under US\$500 are not cost effective to investigate’. Although rarely published, these rules generally permeate through an organisation and are widely known.

The important causal relationship where non-malicious shrinkage provides the opportunity for malicious shrinkage to occur should be borne in mind when considering malicious shrinkage, in the section below.

Malicious Shrinkage

Malicious shrinkage is made up of the three elements of:

- Internal theft
- External theft
- Inter-company fraud.

These three elements are discussed below.

Internal Theft

The ECR survey estimated that for retailers twenty-four percent, and for manufacturers eleven percent of all losses were due to internal theft, which accounts for just over €3.7 billion of loss each year. Despite this, companies, stock loss practitioners and indeed researchers have continued to largely ignore it as an area of concern¹⁹, choosing to focus more on the other problems affecting the sector, particularly external theft. This happens because there is a lack of data, a tendency for unattributable loss to be apportioned to those outside the store or company team, a realisation that it is often easier to target more identifiable security problems, a perception that focusing on staff dishonesty may be bad for staff morale and a belief that if high levels of staff dishonesty are uncovered, it may reflect badly on the image of the company and its managers. Taken together, these factors can all lead to theft from within the company being side-stepped as a major area of concern.

Looking at the specific threats presented by staff, four areas of concern are highlighted below:

Theft of Stock: members of staff removing goods from the premises, for example by hiding it in their personal belongings, placing them outside the building ready for collection at a later date or using the internal mail to post it to their home or some other location. This also includes theft by delivery staff, who remove stock from their vehicles.

'Grazing': staff consuming stock while at work.

Collusion or 'Sweethearting': members of staff, often operating the till, colluding with customers to steal products. This is usually done either by staff not scanning items at the check out or mis-scanning (using a code for an item that is cheaper than the one being purchased). It can also include collusion with shoppers when goods are being returned to the store (possibly stolen in the first place) or with delivery workers, suppliers and contractors.

¹⁹ See Mars, G. (1982) *Cheats at Work: Anthropology of Workplace Crime*, London: Unwin; Hollinger, R., Greenberg, J. and Scott, K (1996) 'Why Do Workers Bite the Hands That Feed Them? Employee Theft as a Social Exchange Process', *Research into Organisational Behaviour*, Vol. 1, pp. 111-156; Beck, A. and Willis, A. (1993) op cit; Beck, A. and Willis, A. (1995) op cit;

Theft of Cash: members of staff stealing cash from the till or cash office, or short changing customers and pocketing the proceeds.

External Theft

In stark contrast to internal theft, external theft has for the most part dominated the stock loss agenda. Despite numerous studies showing that it is not the single most significant threat to organisations²⁰, it continues to receive the vast majority of stock loss expenditure. This is partly because the industry itself is responsible for perpetuating the ‘myth’ of the problem of external theft, but they are enthusiastically assisted by security service providers who play a significant part in setting the agenda and promising quick fix, technological panaceas.

There are five main threats from external theft, which are discussed below:

Shoplifting: offenders enter a retail store and remove goods without paying for them. The goods can be concealed in many different ways, for example in bags, under clothing or secreted in push chairs and prams. This includes so called ‘sweep thefts’ when offenders take a large number of the same item at the same time, and tag switches when shop thieves replace a bar code or sales ticket with one from a product of lesser value.

Returning stolen goods: shoplifters return previously stolen items in order to obtain a cash refund. There are many variants of this, including: the purchase of the same product as the one stolen and then using the genuine receipt to refund the stolen item; using a stolen or invalid cheque book/credit card to purchase items and then returning the goods and getting a cash refund; or simply intimidating store staff, claiming that receipt-less items were genuinely purchased.

Grazing: customers consuming stock while they are in the store.

Till snatches: offenders targeting till operators, demanding or grabbing cash and usually carried out in a threatening or violent manner.

Burglary: offenders entering a building (usually by force) when it is closed, and removing goods and / or cash.

Inter-company Fraud

The 2001 ECR Europe study on stock loss identified that for retailers twelve percent of all losses were thought to be due to inter-company fraud, which equates to €1.6 billion a year. Inter-company fraud is defined as the losses due to organisations, or their agents, deliberately shipping

Bamfield, J. (1998) ‘A Breach of Trust: Employee Collusion and Theft from Major Retailers’, in M. Gill (Ed.) *Crime at Work: Increasing the Risk for Offenders*, Leicester: Perpetuity Press, pp. 123-142.

²⁰ Buckle, A. and Farrington, D. (1984) ‘An Observational Study of Shoplifting’, *British Journal of Criminology*, Vol. 24, No. 1.

or returning fewer goods than are eventually charged for. This includes supplier, retailer and contractor fraud and the losses due to discrepancies in the goods supplied by third parties and not from companies' own distribution centres. The main areas of fraud are:

Under/Over Delivery: suppliers delivering less goods than the retailer ordered, but charging them for the full amount, or deliberately sending them more goods than they ordered and billing them for the new amount.

Phantom Delivery: suppliers claiming to have delivered orders when they have not.

Invoice Error: suppliers charging for more goods than delivered or retailers not paying for goods that they have received.

Returns: suppliers not crediting retailers for the full value of goods returned by them or retailers not returning goods that they are credited for.

Promotions: promotions used to mask under or over deliveries or invoice errors.

Quality/Weight of Items: selling sub-quality products (compared to those stated on the original order) or delivering products that are below the original weight stated or expected (for instance in the delivery of fresh food).

The critical aspect of many of the approaches adopted to commit fraud is that they occur at the point of exchange between organisations. This possibility exists due to two key factors: the inability of most organisations to accurately check the receipt of items to a distribution centre or store and the 'distance' between the point of delivery and the administrative/ordering function of the organisation. The sheer scale of transactions and deliveries between organisations means that it is almost impossible to verify, certainly at item level, that what is claimed to have been delivered has actually arrived. In addition, any disjunction between points of order, invoicing and place of delivery provides the opportunity for exploitation. For example, when the buyer does not know that the products they originally ordered have actually been delivered to the original specification, or those responsible for billing are not fully informed about what was actually delivered.

Problems of Managing Stock Loss

Responses to shrinkage suffer from a number of inter-related problems that have combined to limit its effectiveness in dealing with an issue that is costing businesses billions of Euro a year both in terms of losses and expenditure on so called ‘solutions.’ Indeed, recent research has shown that if stock loss could be eliminated then profits of a typical European retailer would be fifty-eight percent higher²¹. The factors undermining effective stock loss management are: its perceived periphery within organisations; not being able to prioritise it compared to other duties; a tendency to be uni-dimensional, reactionary and solution driven; decision-making within an information vacuum; a lack of cross functional organisational co-operation; and a poor appreciation of the threats posed throughout the entire supply chain.

Unfortunately Necessary

Shrinkage management suffers from an image problem within organisations. Too often it is not seen as actively contributing to bottom line profitability. It is seen as a regrettable consequence of doing business or a function that can be called upon when things have gone badly wrong, such as a break-in, when products have been contaminated or a member of staff has been attacked (often reinforced by finance officers). To this end, it is often seen as the task that requires the skills of those formally employed in public policing – detaining offenders and employing guards. Therefore, its poorly perceived profile inevitably leads to its relative marginalisation within the business.

Juggling Priorities

The roles and responsibilities of security/loss prevention departments are often many and varied, ranging from issues of health and safety, through monitoring contract guarding companies, to responding to kidnap attempts on senior members of the organisation. This myriad of often competing duties, some of which may be a statutory requirement and could incur significant liability if non-compliance or negligence is proved, means that prioritising stock loss and shrinkage can be difficult for those tasked with its management.

Solutions Searching for a Problem

Many of the methods and approaches currently adopted by shrinkage managers can be characterised by a prioritisation of one particular problem: shoplifting, coupled with an almost obsessive belief that the answer can be found in a quick fix technological panacea (usually electronic article surveillance). As the data presented above has shown, retail shrinkage managers themselves suggest that only about one-third of loss is caused by external theft, and yet as one

²¹ This is based upon research conducted by Cranfield School of Management.

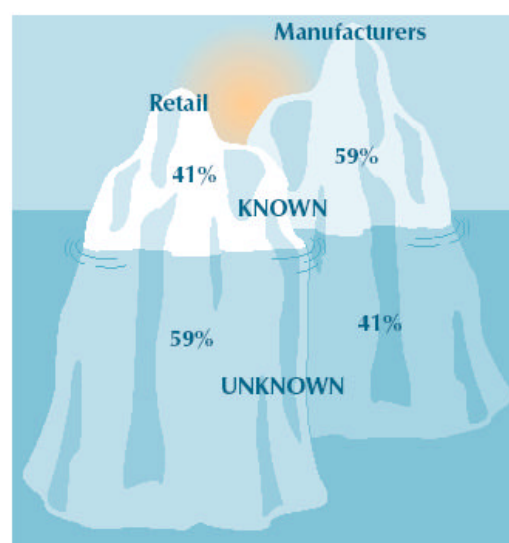
senior manager put it, “Tackling shoplifting accounts for about ninety-five percent of our security budget²².”

In addition, security providers have to a considerable extent driven the stock loss agenda, in particular those offering technology-based products. This has caused shrinkage management to be led by a ‘we have a solution, can we now find a problem’ approach to stock loss. The danger with this is that companies can become locked into relationships with technology suppliers whereby more and more (expensive) technology is seen (with ‘evidence’ often provided by the technology suppliers) as the answer to the shrinkage problem.

Living in a ‘Data Desert’

One of the most fundamental problems currently facing security managers is a lack of relevant, timely and accurate data on stock loss. As detailed earlier, retailers in the European FMCG sector cannot account for fifty-nine percent of their losses, while their suppliers are unaware of forty-one percent of their shrinkage. Put another way, €10 billion of loss in this sector is simply unaccounted for, as illustrated in Figure 3 where the analogy with an iceberg is employed.

Figure 3 The ‘Shrinkage Iceberg’²³



Without doubt, a paucity of data plays a pivotal part in producing poor product protection. Not knowing means not understanding, which means that any response will inevitably be piecemeal, partial and poorly defined. As the ECR report on shrinkage highlighted:

“In theory, the concept of stock loss reduction is simple. It can be described in terms of the three following steps: make stock highly visible so that loss is immediately noticed; quickly identify the causes of the loss; and implement preventative solutions to resolve the cause of the loss and prevent reoccurrence.”²⁴

What is almost totally absent is the data required to make the first step possible. Good decisions and effective threat assessments rely upon having high quality, reliable information²⁵. Those

²² This comment was made by a senior executive (who wishes to remain anonymous) for one of the UK’s largest food retailers.

²³ Ibid.

²⁴ Ibid.

²⁵ Duncan, K., Gale, S., Tofflemire, J. and Yaksick, R. (1992) ‘Conceptualizing a Value-Added Approach to Security Management: The Atkinson Security Project I’, *Security Journal*, Vol. 3.

currently tasked to tackle the problem of shrinkage are virtually operating behind a blindfold, dramatically inhibiting their decision-making capabilities.

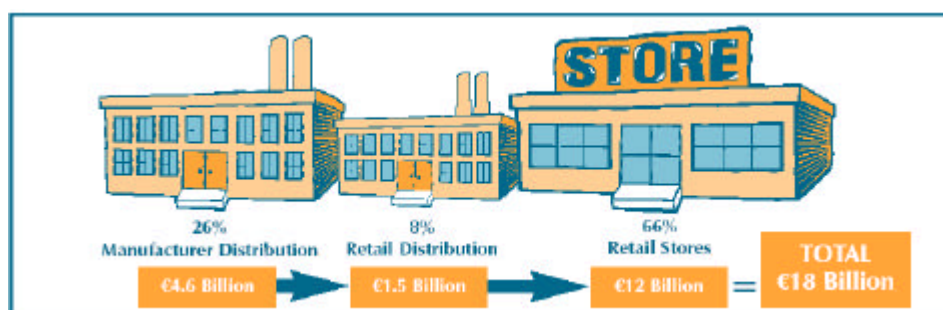
In Splendid Isolation

If security managers can be described as working in a ‘data desert’, then they can also be considered to be there very much alone. The ECR survey found very low levels of both inter and intra company co-operation on resolving the problem of stock loss. Very few organisations have recognised the value of co-operating across company functions to develop more integrated and strategic approaches. Functions such as buying and marketing, IT and human resources were found to be rarely involved in security management issues and yet they have much to offer both in terms of identifying future problems and helping to implement potential solutions. Likewise, co-operation between companies throughout the supply chain was found to be largely absent. As the ECR report found, ‘Shrinkage is a problem that transcends company boundaries – it is something that requires genuine partnership and co-operation if it is to be managed efficiently and effectively’.²⁶ To date this has not happened to any great extent.

Myopic Management

The final factor affecting shrinkage practitioners is a tendency to see the problem as only occurring at the end of the supply chain, that is after the products eventually reach the store. This is in part a function of the prioritisation of shoplifting as the primary cause of stock loss. The store is the point at which customers are allowed to interact with the products and where many of the current technology ‘solutions’ are most easily applied. But as the ECR survey found, up to one third of loss takes place before the goods have reached the retail outlet, as illustrated below in Figure 4. This finding highlights the need to look at losses of goods in transit and while being stored in distribution centres.

Figure 4 Losses in the Supply Chain²⁷



²⁶ Beck et al (2003) op cit.

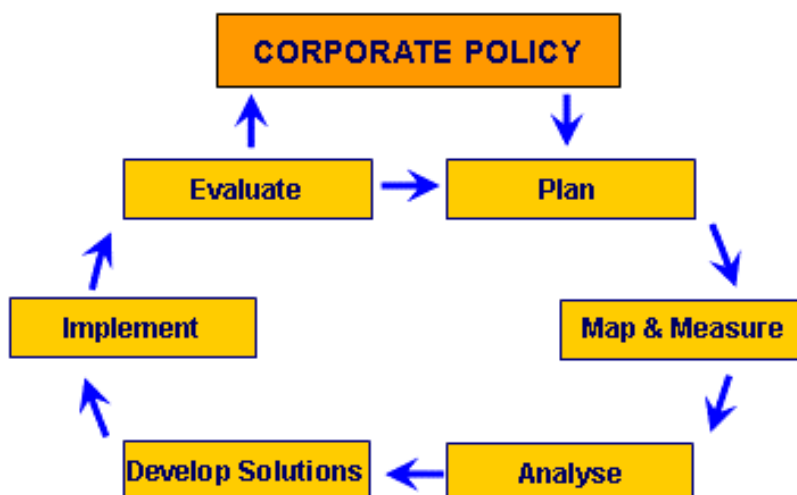
²⁷ Ibid

Certainly the stores are a very vulnerable part of the supply chain, but they are very much *a part* of the chain and stock loss practitioners need to look beyond the retail outlet and recognise that good loss prevention is about securing the entire supply chain.

The ECR Europe Shrinkage Reduction Roadmap

As detailed in their report on shrinkage²⁸, the ECR Europe team put forward a ‘road map’ on responding to the problem. The Roadmap consists of a number of critical steps that need to be completed before a solution is selected, not least the collection of context-specific data on the nature of problem and careful analysis of the underlying causes. Only after these steps have been completed can suitable solutions be selected. Even then, they need to be rigorously evaluated to measure the true impact they are having. These steps are shown in the diagram in Figure 5, below.

Figure 5 The ECR Europe Shrinkage Road Map²⁹



The Roadmap uses corporate policy to direct loss prevention and asset protection efforts as well as employing the findings from projects to inform and refine top management thinking. The case studies supported by ECR Europe find that the roadmap overcomes the tendency of most practitioners to skip the preparatory steps and base their solution selection on gut instinct and security providers’ often extravagant claims. Accordingly, notable success in reducing losses has been achieved by those following the roadmap.

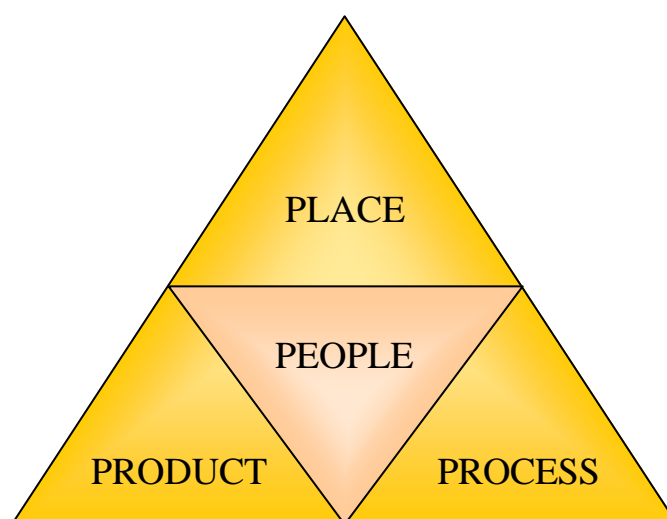
²⁸ Beck et al (2003) op cit.

²⁹ *ibid.*

3 Understanding Risk: The Hot Concept

Risk is not homogeneously spread in time, space and location. Neither is it evenly distributed between demographic groups in society or products on sale. Particular places, products, processes and indeed people are much more vulnerable to loss than others. The inter-relationship between these different elements is depicted below in Figure 6 and the manner with which these factors come together is important to understand in order for organisations to respond appropriately to the problem of shrinkage.

Figure 6 Inter-relationship Between Different Hot Concept Elements



Considering the various elements that constitute the hot concept, most people are intuitively aware of places that we consider to be more risky to visit at night because they may increase our likelihood of criminal victimisation. Similarly, retail organisations are becoming much more aware that certain types of product are more likely to be stolen or damaged than others and that particular types of process, such as unsupervised deliveries are more likely to cause shrinkage. This non-random distribution of risk has been the subject of considerable empirical study, albeit it primarily focused upon non-business related crime. Criminological research in the USA and elsewhere has consistently found that certain parts of urban areas record significantly higher rates of crime than other areas, particularly inner city areas and poorer housing developments. For instance, one study in the USA found that just 3 percent of the geographic area of one city accounted for 50 percent of

all recorded crime, while repeated sweeps of the British Crime Survey in the UK have highlighted the clustering nature of incidents of burglary and street violence³⁰.

In order to be effective in loss prevention and asset protection organisations need to focus on the critical threats, the vital few rather than the trivial many. Effectiveness in this sense implies maximising shopper satisfaction in the first instance whilst maximising profits through increased sales and minimised losses. By understanding the impact of hot products (differentiated by type of shrinkage), processes robustness and the attitude and motivation of people, companies can begin to develop stock loss strategies that are context specific, highly targeted and ultimately effective in reducing the impact of shrinkage.

Existing research is less readily available when the issue of shrinkage clustering is considered. The most significant recent developments in this field have been on understanding the varying risks of theft associated with different types of product – Hot Products³¹ – although little is understood about types of products prone to non-theft shrinkage. Similarly, there is relatively little critical research on the issue of hot processes within organisations – those activities within a company that induce shrinkage to occur. Detailed below is what is currently understood about these two issues.

Hot Products

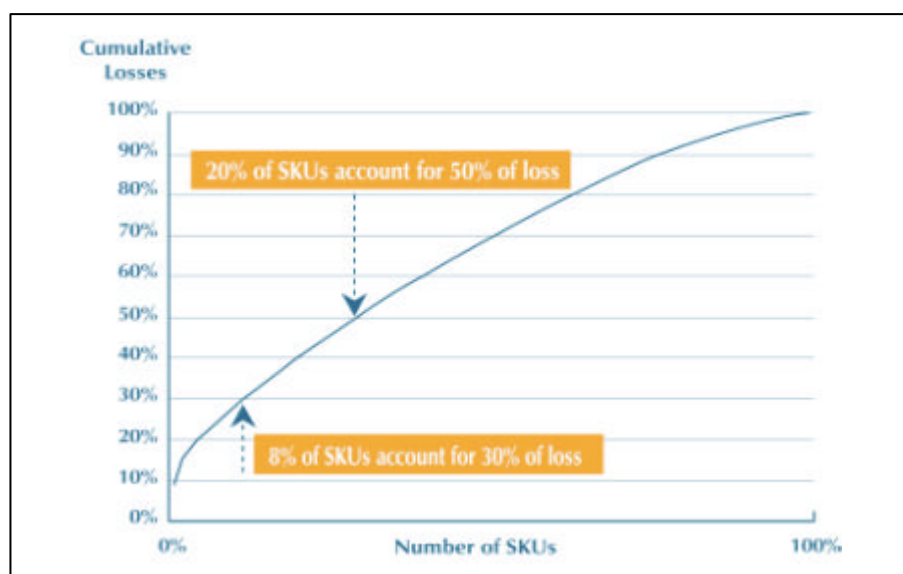
Intuitively, most loss prevention professionals understand that certain products are lost more than others. The same thoughts continue to be voiced by people across the supply chain, from production through to store and from managers to shop-floor operators and colleagues.

Significantly, the general view on which products are most at risk is based on assumptions and opinions and rarely by robustly derived data. Where such data is made available it becomes clear that the opinions are close, but not close enough to be effective. For example, a study of shrinkage in alcoholic drinks found in-store staff responding to unacceptable loss in that category by defensively merchandising high value items such as single-malt whiskeys and brandy. An analysis of losses by individual line item (references/SKU) revealed the high value items suffered little loss. An illustration of this phenomena is shown in Figure 7.

³⁰ See Hough, J. and Mayhew, P. (1985) *Taking Account of Crime: Key Findings from the Second British Crime Survey*, Home Office Research Study No. 85, London: HMSO; Felson, M. (1987) 'Routine Activities and Crime in the Developing Metropolis', *Criminology*, 25, pp. 911-931; and Sherman, L., Gartin, P. and Buerger, M. (1989) 'Hot Spots of Predatory Crime: Routine Activities and the Criminology of Place', *Criminology*, 27, pp.27-55.

³¹ Clarke, R. (1999) 'Hot products: understanding, anticipating and reducing demand for stolen goods', *Home Office Police Research Series*, Paper No. 112, London: HMSO.

Figure 7 Hot Product Example



Instead of losses being evenly spread it was a few popular, mid-price brands that were incurring the majority of the loss. Focusing efforts on these items would deliver significantly higher returns³².

Those products that are much more at risk than others have been termed ‘Hot Products’³³. The term is generally associated with products that suffer excessive loss through theft. However given that theft occurs when opportunity arises and opportunity results from poor control it seems appropriate to extend this concept to include products that are lost through process failure.

Susceptibility of Products to Theft

Clarke’s seminal work on stolen goods identified the key aspects that made particular types of item (especially those stocked by retailers) far more susceptible to theft than others³⁴. He developed an acronym to describe the facets of vulnerable products: CRAVED, which represents **C**oncealable, **R**emovable, **A**vailable, **V**aluable, **E**njoyable, and **D**isposable. In Clarke’s view highly stolen products are concealed so that possible apprehension is reduced; easy to remove and available, such as from open display in a store; relatively valuable making them worth stealing; and enjoyable and disposable, appealing to a readily identifiable black market where both demand and resale prices are high. Classic examples of hot theft products include CDs and DVDs, some health and beauty products such as razor blades and face creams and small electrical items such as batteries, replacement films and printer toner cartridges.

³² Beck, A. and Chapman, P. (2002) *Beers, Wines and Spirits Loss Prevention Project: Final Report*, unpublished. This study did also note that the relatively low losses to high value spirits might also be due in part to the protection they were currently receiving.

³³ Clarke (1999) op cit.

³⁴ Ibid.

While the CRAVED acronym has stood the test of time, and certainly resonates very clearly with retailers, it lacks a degree of practical applicability, it is often difficult for shrinkage practitioners to develop strategies to counter some of the characteristics present within CRAVED. For example it is difficult to derive from this approach how to reduce the value of a product, without losing profitability or how to make something less enjoyable without reducing sales. Indeed both manufacturers and retailers are keen to maximise the value of products and for shoppers to enjoy them in order to deliver sales volume and sales margin for their businesses. In other words, while Clarke's model in general has been invaluable in stimulating awareness of the need for retailers and manufacturers to focus their attention on the vulnerable few, its hot product characteristics are perhaps less helpful, and of more interest to the academic community than shrinkage practitioners. In some respects, it may be time to develop a version of CRAVED that directly addresses the needs of shrinkage management practitioners.

Susceptibility of Products to Process Failure

Process failure is a broad category into which several different causes of shrinkage converge. The link between product attributes and shrinkage through process failure operates in two ways. There are product characteristics that lead to process failure and there are those characteristics that make a product susceptible to shrinkage when process failures occur. The common link connecting these related losses is that product attributes increase either the likelihood or severity of loss when process failure occurs.

The link between product characteristics and shrinkage through process failure is broadly not well understood. This stems from a lack of recognition of the importance that process failure has in causing shrinkage. For example, the opportunity for theft-related shrinkage often exists due to failure in processes, leading to a breakdown in control. Similarly, a product may possess characteristics that make it vulnerable to shrinkage but fail to suffer loss due to robust processes, whilst a durable product may be treated inappropriately and have a high level of loss.

Against this background, there are several areas where understanding exists. The following product attributes appear important in explaining the susceptibility to process failure.

Efficacy

The efficacy of a product needs to be maintained in order for it to be able to deliver the service it is designed to provide to consumers. There is a symbiotic relationship between the design of the supply chain processes that deliver the product to the consumer and the design of product attributes in order to ensure a product's efficacy is maintained. For example, fresh products maintain their nutritional value and food safety only for a given period of time and only when stored and distributed uncontaminated through the supply chain and only when maintained at a

temperature of +3°C to +5°C. Outside of these parameters the efficacy of the product is not assured and the product poses a risk to the health of the consumer. Following the 'fail safe' principle to control, checks are conducted to determine whether standards are maintained. Even where safe limits have not been explicitly shown to be breached, the safe assumption is that control has not been maintained and therefore the product must be safely disposed. Safe disposal includes ensuring the product cannot be resold to consumers, e.g. by dyeing it an unusual colour.

Non-food products also need to maintain their efficacy. Although they can be less temperature sensitive than food products, many non-food products will fail at and below 0°C (32°F) and above 35°C (95°F), when the item or its associated packaging will be damaged. Another attribute to consider is the sterility of products, e.g. clothing or health and beauty items that come into contact with the skin or internal body cavities. Even microscopic damage to product packaging risks contamination of the product. Other environmental issues to consider include the susceptibility of a product to the presence of strong smells that could contaminate it and the consequences of the ingress of water.

Good supply chain processes are designed to ensure the efficacy of the products that pass through them. However where a product has unstable attributes then failure in the processes is likely to increase the occurrence of shrinkage incidents and the severity of the loss when an incident occurs.

Fragility

Every location where products are stored risks collision from other objects. Whenever products are being moved they risk colliding into other objects or simply dropped. It is therefore prudent to assume that products are liable to be damaged throughout the supply chain: during production, storage, distribution and at every interaction with people, including shoppers, and machinery.

The likelihood of damage occurring is reduced through good design. Visibility in warehouses is improved with good material handling equipment design and a sympathetic layout. The handling of product can be improved by considering the size and weight of shipping units from the perspective of how it will be handled throughout its journey along the supply chain. For example, pallet stability in distribution centres and warehouses can be improved through the design of effective stacking layouts. Similarly, packaging design should reflect how the product will be handled throughout the supply chain, including being merchandised on the shelf and selected by shoppers.

Good design will reduce the occurrence of incidents, however some accidents inevitably happen. The fragility of a product is an attribute that will affect how severe the loss will be in a given incident.

Appearance

Cosmetic damage during handling or storage that does not affect functionality will cause shrinkage by reducing the worth of a product. For example, dropping a shipping case in a warehouse may result in the packaging of the consumer units being slightly crushed. The consequence of the damage is dependant on the importance of the product's appearance. For example in the case of luxury and gift items even minor damage may cause the product to become worthless to the shopper.

Interesting demographic and geographical differences exist over a shopper's response to the appearance of a product. For example, UK shoppers consider appearance as the major attribute when buying fresh products. Other European nations consider smell and taste to be more important.

Differentiation

Difficulties in identifying one product from another leads to the wrong item being picked, distributed, sold or charged for. In a warehouse, each racking location looks the same as all the others and it is easy to put a pallet away in the wrong place. One rectangular, brown shipping carton looks much the same as another and is easily picked by mistake. One stretch-wrapped pallet looks the same as another and can easily be dispatched to the wrong store. All of these are examples of the way that poor product differentiation can contribute to failure in the supply chain.

In store, many products look the same. Fresh products are difficult to distinguish from one another, especially when they are sold loose without a barcode. This is particularly the case with seasonal fruit and vegetables that are only sold for a short period of time and with fresh meat. The difficulty in product differentiation increases the likelihood that checkout staff will charge the wrong price.

Selling Unit Quantity

Uncertainty over the number of items that constitute a sales unit leads to the wrong quantity being shipped or the wrong price charged. For example in a distribution centre a picker is asked to pick one unit of a product, however it may not be clear whether the unit consists of a shipper carton of 50 consumer items; an inner carton of 10 consumer units; or an individual consumer unit. This uncertainty increases the likelihood of failure occurring.

Promoted items can cause uncertainty in-store over what consists a sales unit, e.g. on a 'buy one, get one free' (BOGOF) offer. This uncertainty extends to accounting for items that remain in store after the promotion period has finished.

Obsolescence

Most products become obsolete over time following the development of superior products by the parent company or competitors. The rate at which products become obsolete depends on several characteristics, including:

- *Fashion.*
- *Technology.*
- *Frequency of range change.*

At the point when a product becomes obsolete it loses its worth to the shopper and its value to the retailer and manufacturer. Products that remain in store or in the supply chain after demand for that item has ceased will have to be disposed of. The shorter a product's life cycle is, the greater the likelihood that shrinkage through obsolescence will occur. The severity of the loss is dependent upon the amount of inventory held in the supply chain when the product becomes obsolete.

Hot Processes

Case study research³⁵ has begun to identify that the control of supply chain processes is most problematic at a few, specific points. Examples include the picking of goods in a warehouse, the receipt of deliveries into stores and the display of products in stores. These problematic points in the supply chain are termed 'supply chain hot spots.' Through identifying the location of these problem areas, attention can be focussed on them. By concentrating on these relatively few vulnerable points, rather than the trivial many, enables the greatest reduction in overall supply chain risk to be achieved, in the shortest time frame, for a given input of managerial effort.

To date much of the work in this area has been overlooked by the loss prevention community. However, a substantial and untapped body of knowledge exists amongst the supply chain management³⁶, operations management³⁷, manufacturing systems engineering³⁸ and total quality management³⁹ disciplines. Supply chain management provides the broad, holistic view that is so often missing from loss prevention efforts. This approach recognises that the consequences of shrinkage and the cause of the loss may exist at difference points in the supply chain and that companies are likely to have to collaborate to resolve the problem. Supply chain management also encompasses the techniques and tools needed to fix a defective supply chain for example through

³⁵ Beck et al (2003) op cit.

³⁶ For example Christopher, M.G., (1992) *Logistics and Supply Chain Management*, Financial Times/Pitman Publishing: London; Gattorna, J.J. and Walters, D.W. (1996) *Managing the Supply Chain*, Macmillan Business: Basingstoke.

³⁷ For example see Slack, N., Chambers, S. and Johnston, R. (2001) *Operations Management*, Third Edition, Financial Times Prentice Hall: Harlow.

³⁸ For example Hill, T. (1993) *Manufacturing Strategy 2^d Edition*, Macmillan: London; Schonberger, R.J. (1982) *Japanese Manufacturing Techniques: Nine Hidden Lessons in Simplicity*, Collier-Macmillan: London; Womack, J.P., Jones, D.T. and Roos, D. (1990) *The Machine that Changed the World*, Maxwell Macmillan International: Oxford.

³⁹ See for example Crosby, P.B.; (1979); *Quality is Free. The Art of Making Quality Certain*, McGraw Hill: New York.; Deming, W.E. (1982) *Out of the Crisis*, Cambridge University Press:Cambridge; Feigenbaum, A. (1983) *Total Quality Control*, McGraw

the disciplines of material handling, warehouse management and distribution. Above all, the aim of this approach is to ensure that the right products are delivered to the right place at the right time. The implication being that the opportunity for error is designed out and managerial control extends across company boundaries to ensure inter-firm processes are robust, which is a major requirement for loss prevention and asset protection.

Robust supply chains require that each link in the chain is operating effectively, hence the role for operations management in ensuring this to be the case. This is nowhere more developed than in best practice manufacturing where investments in making quality a certainty have led to process capability at the six sigma level, that is where quality levels exceed 3.4 defective products per million. Such high levels of process control provides both a major inhibitor to shrinkage as the opportunities for process failure has been removed and also an immediate warning when a problem occurs as it disrupts the smooth running of the operation. The techniques used to achieve these performance levels are also adaptable to shrinkage reduction efforts, as demonstrated in the incorporation of some quality control techniques into the ECR Europe loss reduction roadmap.

Hence those organisations that take a holistic view of shrinkage and recognise the impact that good supply chain and operations design and control has on reducing shrinkage throughout their supply chain will find that a multifunctional approach targeted with improving process control is likely to be of considerable benefit. The starting point for this effort is to place processes at the heart of their analysis efforts. This involves following the progress of items within particular facilities, e.g. a distribution centre or a store, and also between facilities, along the supply chain. These items may be either:

- Products
- Information
- Money

It is usually easier to begin process mapping by considering the flow of products first. Mapping the flow of a product (typically a hot product) will reveal the series of interlinked steps that enable it to progress from supplier to customer, and which underpins the success of the organisation.

All of the processes through which products, information and money pass possess the potential to become hot processes where they lack good control, either through poor design or poor management. However there are a few points that are particularly susceptible to problems:

Hill: New York; Garvin, D. (1988) *Managing Quality*, Free Press: New York; Juran, J.M. (1988) *Juran's Quality Control Handbook*. 4th Edition, McGraw-Hill: London.

Handling

Whenever a product is handled it risks being damaged. Handling also implies that a person is present and their legitimate interaction with the product presents the opportunity for them to abuse this situation and steal. Information can also be handled, that is it can be brought together in one place from several files or written on a document or it can be dispersed, e.g. copies of a triplicate form are split apart. Each action contains opportunities for errors to occur.

Movement

Transportation from one place to another presents another opportunity for accidental damage to happen during the journey for a host of reasons. It is also possible for the wrong item or wrong quantity to be taken from one location and delivered to the wrong destination, causing them to become lost. Movement can also allow something to move outside of a controlled space, even temporarily. For example in a store a hot product may be merchandised in a visible spot with good CCTV coverage. However having been selected by the shopper it can be transported throughout the store, including quiet 'black spots' where it can be hidden in a bag, unnoticed. The same is true of information, for example where emails pass from a secure environment and into the general Internet before being delivered.

Change of Form

This action contains the risks associated with handling, plus additional ones. Changing the form of an item can change those attributes that many have been vital in providing it with an identity and the ability to track it. For example during transportation most companies give the pallets an identity and track their movement during distribution. If the pallet is broken down then this identity is lost. Instead they are left with the cases that were on the pallet, whose identity and quantity may not be known.

Exchange of Ownership

Exchange of ownership occurs between people within an organisation, between different parts of an organisation, between different companies and between companies and shoppers. Often this exchange occurs at the same time as a physical movement takes place, with all the associated opportunities for loss. In addition, the exchange of ownership occurs requires that the product, information and money processes are synchronised at this point otherwise errors in knowing what to pay for can arise.

Storage

Items that are not moving run the risk of becoming obsolete. A product can be damaged, superseded or go out of date. Information can also be superseded⁴⁰ or become corrupted. The purchasing power of money reduces through the effect of inflation. It is also difficult to maintain control all the time. In the immediate term, the risk of shrinkage increases at night. In the longer term, changes in personnel can lead to items being mislaid or forgotten.

Each of these areas of process risk is likely to manifest itself in a different way according to the characteristics of different processes. It is also important to note that this list is not exhaustive and that other, context specific risks are likely to manifest themselves. However, it does provide a starting point for understanding the attributes that can turn a process into a hot process.

Value of Understanding the 'Hot' Concept

All organisations have a finite amount of resources to combat the problem of shrinkage and there is a delicate balance to be drawn between protecting product and maximising sales⁴¹. The value of understanding and employing the 'Hot' concept is that it allows management teams to focus their resources on the products that are most likely to suffer from shrinkage. As shown in the example portrayed earlier in Figure 6, perhaps as few as twenty percent of items can account for fifty percent of total losses. It makes good business sense therefore to concentrate efforts on the products that need the greatest protection. In addition, by focusing on the vulnerable few, the return on investment is likely to be much greater as losses will be reduced quicker. There is also some evidence to suggest that there can be a diffusion of benefits as losses related to other products are reduced by the methods adopted to protect the hot products⁴². For instance, Masuda found that increased management vigilance and improved process adherence for hot products reduced overall levels of staff theft for all product types⁴³.

Simple logic would suggest that the findings from the work concentrating on hot products might also be valid for other elements of the supply chain, such as people, places and processes. Smart shrinkage management in the future will be concerned with identifying the most vulnerable

⁴⁰ Today's newspapers are tomorrow's fish and chip wrappers

⁴¹ Beck, A. and Willis, A. (1998) 'Sales and Security: Striking the Balance', in: M. Gill, (ed) *Crime at Work: Increasing the Risk for Offender: Volume II*, Leicester: Perpetuity Press, pp. 95-107.

⁴² Masuda (1992) op. cit.; Masuda, B. (1997) 'Reduction of Employee Theft in a Retail Environment: Displacement vs. Diffusion of Benefits', in: R. Clarke (ed) *Situational Crime Prevention: Successful Case Studies*, New York: Harrow and Heston, pp. 183-190.

⁴³ Ibid.

products to different types of shrinkage, the likely processes that can increase this risk and the most susceptible locations. If organisations can effectively identify these hot spots throughout the supply chain then they can begin to develop a highly targeted and extremely potent shrinkage management strategy that will dramatically reduce losses within the organisation.

4 Hot Stores Research Project

The concept of Hot Stores is derived in part from observations made during fieldwork on other ECR Europe shrinkage reduction projects⁴⁴ that showed that some stores perform better than others when it comes to minimising shrinkage. There is also strong anecdotal evidence from retailers themselves who have long recognised that some stores seem to continually under perform compared with other stores within their estate.

As described earlier, the Hot Product concept has a strong theoretical and applied basis, whereas the concept of Hot Stores lacks such rigour. It was clear that research into the topic needed to first establish whether there was empirical evidence to back up practitioner perceptions and field observations. Where the existence of the Hot Store phenomenon could be substantiated, further research would then seek to understand the factors that affect it.

Background

In part derived from industrial mythology, from unanticipated findings from other research and from the literature, there is a strong sense that some stores perform better than others when it comes to reducing shrinkage. This research sought to investigate this opportunity to improve understanding of shrinkage by harnessing the willingness of Europe's retail community to explore this issue whilst distancing itself from the poor quality information and sentimentality used to explain the phenomenon. In doing so the objective of this research was to work with the industry and identify where evidence existed to support current perspectives and also to identify where evidence did not support them.

To frame the research, the members of the ECR Europe Shrinkage project team were polled to identify common themes in their understanding of the issues associated with shrinkage in stores. This resulted in three themes being highlighted, in no order of priority, as follows:

- *Social Geography*
- *Management*
- *Supply Chain Partners (internal and external)*

Social Geography

Social geography relates to the demographic and social make up of the area in which a store is located. Location impacts on store shrinkage due to the propensity of these people to use the store for shopping or as a target for criminal activity. The local population is also likely to form the

⁴⁴ Beck et al (2003) op. cit.

labour pool from which employees are recruited. The perception of the effect of social geography on shrinkage is summarised in the belief that, “Bad areas cause high shrinkage.”

Management

Management issues affect shrinkage in two broad ways. These relate to (1) the corporate policies and practices of a retailer and (2) the manner in which those policies and practices are deployed in individual stores.

Retail chains make corporate decisions that affect in-store shrinkage. There are many areas for the corporate management team to consider, including:

- *Proportion of grocery items to non-food lines.*
- *Store size, e.g. mini markets through to hypermarkets.*
- *Delivery methods, e.g. centralised distribution or direct store delivery by suppliers.*
- *Range of items held in store, (can vary from 5,000 to 80,000 references).*
- *Store autonomy, i.e. one format for every store or managerial flexibility to tailor the store.*

The list of issues on which a retail chain’s corporate policy will have an effect on shrinkage is considerable. This causes a problem when researching the impact of individual decisions on the performance of the retailer, as there are too many variables to control. However it is possible to test whether there are significant differences in the level of shrinkage between retailer chains.

Researching management practices within a given retail chain normalises a considerable number of variables, as they are the same for all the stores in the chain. This allows research to be conducted into the manner in which corporate policies and practices are deployed in individual stores. It is also possible to test whether there are significant differences in the level of shrinkage between stores within the same retail chain. The perception that the abilities of individual managers can affect the level of shrinkage in a store is captured in the belief that, “Good shrinkage results follow good managers.”

Supply Chain Partners

There is a perception that shrinkage can be imported from supply chain partners. These partners may be internal or external and either customer or supplier. They are thought to have the potential to cause loss through a combination of process failure, employee theft and fraud.

These problems occur when the goods that were ordered are not received. This mistrust operates both ways in the supply chain. From a manufacturer’s perspective they feel that retailers, ‘always complain when deliveries are under but never when they are over’. Whilst from the retailer’s perspective, ‘invoices reflect what we ordered, not what they delivered’.

This issue is not just a manufacturer – retailer one. Within a retail chain, store managers may feel they are not being served well by their central distribution operation. This feeling is reinforced by evidence from some retailers where their distribution centres habitually underpick product, for example 1 percent less than planned, and end the year with a surplus of items.

There is a view that this problem does not lead to actual loss as the products remain within the retailer's supply chain. This argument suggests that efforts to resolve this situation are not necessary and is a case of 'chasing wooden dollars'. However such an attitude does not factor in that process failures such as this provides the opportunity to hide malicious loss.

Some of the issues described above will be common across a retailer's estate although they also have the potential to be more significant in some stores rather than others. For example some managers may be better at addressing the problems than others. They may have better practices in place or may operate their procedures more consistently. Also some managers may report over deliveries as a matter of course whilst others see it as an opportunity to balance their perceived losses.

It was from this background level of understanding that the ECR Europe research into Hot Stores was launched.

Research Objectives

In light of the limited level of current understanding, the objective of the research in to Hot Stores was limited to answering two broad questions:

- *What is the profile of store losses across Europe?*
- *What makes a store 'hot'?*

Research Methodology

This research was approached from the perspective that the topic lacks widespread and general understanding both within the industry and within the research team. It was therefore appropriate to design a method that reduced the sensitivity of the research to bias. Hence we chose to gather data from multiple sources to enable our analysis to be triangulated.

In order to determine the profile of loss across Europe it was necessary to gather data from multiple retailers. This was achieved using a survey that gathered quantitative data from the retailers on the amount of shrinkage per store for all stores in their estate. This data allowed an overall profile of loss per store to be derived. This data also allowed the comparison of the loss profile between retail estates.

A sample of European retailers were contacted and asked to provide data on the level of shrinkage for each store in their estate. Of the eighty-nine companies contacted sixteen responded, a response rate of eighteen percent. In total, data from 2,504 stores was collected.

Field work was conducted in four retail chains in order to provide a greater depth of information on factors that affect the overall shrinkage in a chain and also between stores within a chain. The four participating companies are shown in Table 1 below:

Table 1. Participating Case Study Companies

| Company | Country |
|------------|----------|
| Ahold | Czech |
| Feira Nova | Portugal |
| Tesco | UK |
| Wickes | UK |

A questionnaire was sent to the loss prevention manager from each company. This sought to identify the company policies and procedures relating to security (overall philosophy, types of data collected etc) store management (manager incentive schemes, degree of autonomy etc), and staffing issues (type of training given to staff, disciplinary codes used etc). In addition, each case study company was asked to provide quantitative data for each of the stores in their estate covering a wide range of issues including: staff turnover, length of time the manager had been at the store, number of shoplifters apprehended in the last 12 months, number of staff dismissed, age of the store, time since last refit etc⁴⁵.

Four stores in each chain were visited in order to conduct a site review and to interview the store manager and members of staff. The purpose of the visits was to determine the causes of loss in the store. The four stores were selected to form two sets of matched pairs whose profile was similar, with each pair containing one high loss store and one low loss store. The fieldwork was designed to gather quantitative and qualitative data on the performance of each store and then to allow the comparison of findings from the two high loss stores against the findings from the two low loss stores.

The research was divided between research teams from the University of Leicester and Cranfield University, with two retailers investigated by each team. This division allowed each research team to conduct a peer review of the other's work in order to highlight and resolve unintentional biases or deficiencies in method. A further review of method, progress and findings was provided by the ECR Europe Shrinkage Project team, who acted as a steering group for the research.

⁴⁵ The complete research instrument can be found in Appendix I.

Limitations of the Methodology

There are a number of limitations to the methodology that need to be taken into account when reviewing the data presented in this report. First, the sample size of the survey of retailers in Europe is relatively small. The list was limited to those companies that had previously been contacted by the ECR Shrinkage Group and where an email address was available. It was not possible to get a response with an even geographic spread of companies to take part in the survey and so the sample is skewed towards western European companies. Similarly, the sample contains some retailers with a large number of stores, who therefore are over represented in the overall population of stores. Likewise, the data set only contains results from those companies that are able to collect information on the level of loss at store level, and are willing to share it with researchers. Arguably therefore, the sample is skewed towards those companies that have a more enlightened approach to the issue of shrinkage management. Given this, however, the purpose of the survey was to draw a broad sense of what the general distribution for European retailer might look like, and the sample average was very close to the European average recorded by other surveys⁴⁶. The statistical distribution was also essentially normal, which suggests that the sample size was sufficiently large to minimise the impact of any one respondent.

Secondly, it is not possible to make any detailed comparisons between the case study companies from the quantitative data on the rate of shrinkage per outlet made available to the research team. This is not possible because each company measured shrinkage in a different way, for instance some included whilst others excluded known loss, and not all stocked the same product range (one was not a grocer for instance). Given this, the report will not seek to explain the different rates for each company, but merely reflect upon the different distributions within each case study.

Thirdly, the number of stores visited by the researchers was small – only four per company, and the sites were primarily selected by the organisation themselves (there was limited consultation with the researchers). While the research team requested to visit two stores with low shrinkage and two stores with high shrinkage, the research team was not able to check the veracity of the data upon which the host organisation made this decision. Similarly, time and travel limitations also meant that the case study stores were often relatively close to one another, again raising issues about whether the stores selected to take part in the study were representative. These factors need to be taken into consideration when reviewing the data presented below.

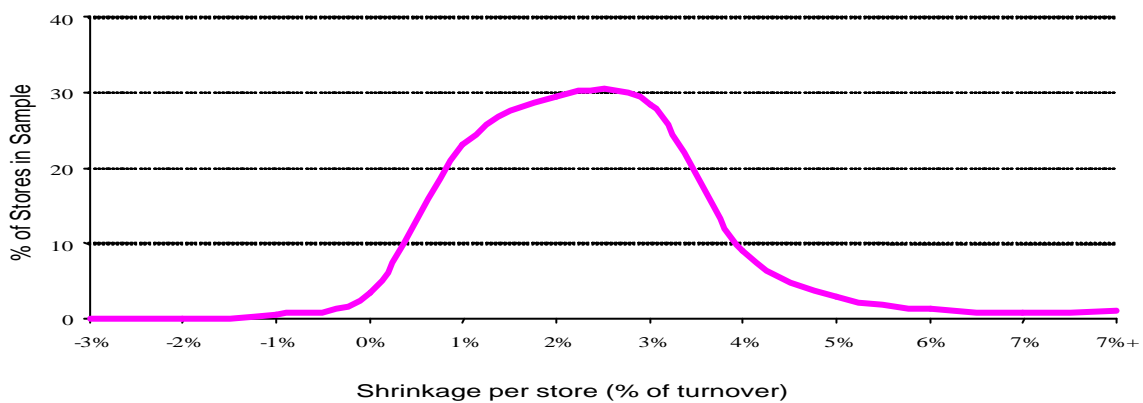
⁴⁶ See for instance Beck, A., Bilby, C. and Chapman, P. (2002) 'Shrinkage in Europe: Stock Loss in the Fast Moving Consumer Goods Sector', *Security Journal*, Vol. 15, No. 4, pp. 25-39; Bamfield, J. (2003) 'Stealing From Shops: A Survey of the European Dimension', in: M. Gill, (ed) *Managing Security: Crime at Work Series Volume 3*, Leicester: Perpetuity Press, pp. 125-140.

5 Findings: The Profile of Store Losses Across Europe

In answer to the first objective of this research, a profile of losses for retailers across Europe was derived from the data gathered by the survey. At a low level of granularity the data provides a profile of the loss per store by collating the data from all respondents. This data provides a reference for contrasting the relative performance of the four individual retailers that participated in the case studies. For reasons of confidentiality, each retailer’s data is presented anonymously. To allow comparison between retailers with different numbers of stores the data has been normalised by converting it into percentages.

The distribution of the level of loss per store for Europe’s grocery retailers was plotted on a graph to create the profile shown in Figure 8, below.

Figure 8. The Profile of Distribution of Shrinkage per Store for European Grocery Retailers



The distribution can also be described in terms of the statistics shown in Table 2.

Table 2. Shrinkage per Store for European Grocery Retailers

| Average Shrinkage Per Store | Standard Deviation |
|-----------------------------|--------------------|
| 1.91 % | 1.48 % |

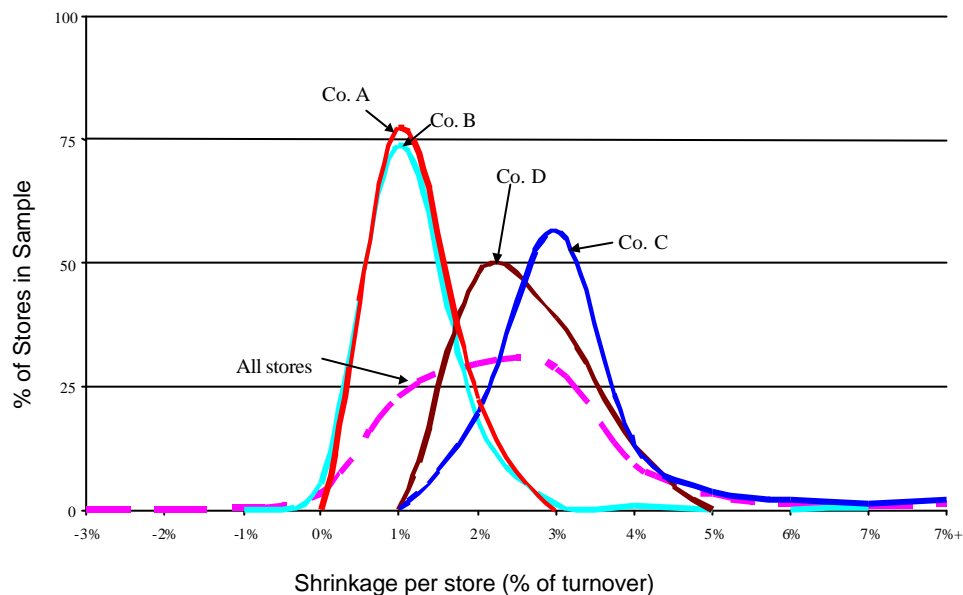
The distribution of shrinkage per store can be seen to assume the profile of a normal distribution with a typical shape that is symmetrical about its mid point. The distribution is not however a perfect normal distribution. For example its modal point (the highest point of the curve) does not coincide with the arithmetic mean of the sample. Instead the distribution is skewed marginally to the right.

Notwithstanding the observation that the distribution is not a perfect normal distribution, it is however a good approximation and provides a useful description of shrinkage by store across Europe’s grocery retailers.

Individual Company Store Loss Distribution Profiles

The European sample of loss per store is built up from separate data sets for the retail chains that participated in the survey. Of these chains, four agreed to be studied in greater depth. The distribution profiles of shrinkage per store for these four retailers is presented in Figure 9.

Figure 9. Distribution of Shrinkage per Store for the Four Case Study Companies



In each case, the distribution of shrinkage per store for the four case study companies reveals a distribution that approximates to a normal distribution. These individual company distributions are different from the distribution for the industry as a whole in that the spread of results is narrower. This can be seen in Figure 8 with the taller, narrower profile of the retailers’ distributions. The shrinkage distribution per store for individual estates also possess smaller standard deviations than the distribution for all stores across Europe. This is to be expected as the opportunities for difference between stores of varying format in a variety of European countries is greater than the opportunity for variation found within a given retail estate.

The distributions of companies A and B have similar profiles, in particular with respect to the average loss per store. Company C has an average shrinkage per store above that of the overall average and higher than the other three case study companies. This causes its distribution to lie

furthest to the right. The distribution of Company C’s data also reflects the presence of a number of stores in the upper end of the shrinkage scale, causing the distribution to have a tail to the right. Finally the distribution of shrinkage per store for Company D can be seen to be skewed slightly to the left. This gives it an appearance that suggests it may contain results that are favourable to the distribution of shrinkage across all stores. However this observation is false, as can be determined by reviewing the statistics on the distribution of shrinkage per store for these four companies presented below in Table 3.

Table 3. Statistical Data on the Distribution of Shrinkage per Store for the Four Case Study Companies

| Company | Shrinkage per store (% of store turnover) | |
|----------------|--|-------------------------------|
| | <i>Average Shrinkage (%)</i> | <i>Standard Deviation (%)</i> |
| All stores | 1.91 | 1.48 |
| Company A | 0.76 | 0.29 |
| Company B | 0.77 | 0.82 |
| Company C | 2.70 | 1.44 |
| Company D | 2.28 | 0.66 |

Examination of the statistical data presented in Table 3 confirms that Company D and Company C have average shrinkage per store greater than the average for all stores in the sample.

Of note is the spread of data for Company C. This has a standard deviation only marginally smaller than for all the stores yet in Figure 9 it appears much less spread. The statistical analysis to determine the standard deviation of the source data reveals that the sample contains a relatively high number of high shrinkage stores, which reveal themselves in Figure 8 as the tail to the right of the distribution.

Discussion of Findings

The results presented above offer a useful insight into the profile of losses across retailer’s estates. Triangulating the findings from the data sets with qualitative information gathered during fieldwork with the companies allows the debate on the Hot Store phenomenon to be further explored. However it is important to note that despite this research being well grounded, the research team is united in viewing the conclusions drawn from the findings as being tentative in nature and requiring caution to be exhibited in their interpretation and application. The findings are

therefore discussed below, company by company, from a position of (i) seeking to deliver meaning to the ECR community whilst (ii) acknowledging the boundaries of the research.

Company A was found to be the best performing of the case study companies. This retailer was able to deliver two important successes. Firstly it had the lowest level of average shrinkage per store at 0.76%. Secondly, the company had the lowest spread of results between its stores. The profile of this distribution illustrates these characteristics with the distribution located further to the left than for the other companies, where it is also taller and narrower. The low level of average shrinkage suggests that this company is employing practices across its estate that reduces loss. The low level of variation around this average indicates that these practices are being deployed consistently across all stores.

The profile of the distribution of shrinkage per store for Company B appears at first to be similar to the distribution for Company A. The majority of Company B's stores have shrinkage in the range 0% to 2%, giving the distribution a profile with a narrow, tall peak in that range. The average shrinkage for Company B is slightly larger than for Company A at 0.77%. There is a wider spread of results for this estate, caused by a small number of stores with outlying shrinkage levels in the ranges -1% to 0%; 3% to 4% and 6% to 7%.

The existence of stores with negative shrinkage, where a store has more products than recorded in its inventory account, indicates a failure in the supply chain processes. This can be caused when too much inventory is picked and sent to store or through a failure in the reconciliation between deliveries and the store's inventory account. For example, negative shrinkage will be caused if there is a time lag between a delivery arriving in store and the value of that delivery being added to the store's account. When a physical stock-take (an inventory) is made, the goods are counted but they are not yet on the record of the store, hence the store appears to have too much stock, which appears as negative shrinkage.

The stores with outlying results in the ranges 3% to 4% and 6% to 7% indicate that not all stores are performing as well as the majority. That is either the practices successfully employed in most stores are not being followed in these stores or there are special circumstances in these stores that result in the usual practices proving ineffective.

Company C has the poorest set of shrinkage results of the four case study companies. The profile of the distribution of shrinkage per store reveals a well-formed normal distribution, albeit with a tail of outlying results to the right hand side. The location of the distribution is furthest to the right of the four companies and the company has the highest average shrinkage. The company also has the widest spread of results about this average, as shown by the relatively high standard deviation.

Examination of the source data supplied by Company C reveals that 83% of their stores had shrinkage levels greater than the European average of 1.91%. It was also found that over ten percent of stores had shrinkage levels greater than twice the European average of 3.82%.

The relatively high level of average shrinkage at Company C suggests that corporate policies employed by this retailer causes shrinkage levels to be higher than for the other three retailers and the overall European average. The relatively high variation around this average indicates that these policies do not give consistent results. This may be due to variations in the way that policies are deployed or that the retail estate faces a wider number of external variables that influence the effectiveness of the policies.

The profile of the distribution of shrinkage per store for Company D is slightly skewed to the right. This distribution possesses an average that exceeds the European average. It has a smaller range of variation than two of the other three companies.

Examination of the source data provided by Company D revealed that 57% of stores had a shrinkage level above the European average and 4% of the stores had a shrinkage level greater than twice the European average.

Explaining the Difference Between the Results Reported by the Four Retailers

Analysis of the data provided by the four case study companies reveals that there is a noticeable difference between the distributions of their levels of shrinkage per store. Explanations for the difference between the distributions include:

- Differences in methods for calculating shrinkage
- Differences in corporate policies deployed by the retailer

The Impact of Differences in Methods for Calculating Shrinkage

The data reported by the retailers on their levels of shrinkage per store will be affected by differences in data collection and reporting between the companies. Possible causes of variation include:

- Definition of shrinkage
- Rigour of data collection

The ability to compare data sets between retailers will be affected by the way each retailer defines shrinkage. Whilst this research sought to mitigate against this possibility by providing a standard definition, there is no guarantee that this was heeded.

The quality of the data reported by the retailers is dependent upon the rigour with which the data is collected from each store. It is possible that some companies are (1) more rigorous than others in their data collection, which would result in higher level of loss being reported and (2) more consistent in the way loss is collected across the estate, which would reduce the variation in the level of loss reported between different stores.

It has not been possible to gauge the effect that these possible differences in the rigour of data collection have had on the data sets received from the retailers. Hence it is necessary to be cautious when making comparisons between the different company's performance.

The Impact of Differences in Corporate Policies Deployed by the Retailer

If it is the case that corporate policies deployed by the retailer across their estate have an impact on the level of shrinkage in their stores then differences in these policies can be expected to lead to different shrinkage profiles between estates. The term 'policy' is taken here as being a broad term that includes decisions relating to: social geography, such as store location and human resource practices; management, such as what kinds of products to store and how to display them; and supply chain partners, including the manner that distribution is organised and controlled along the supply chain and whether supply chain partners collaborate to resolve issues. As discussed previously, these three themes are believed to be the major drivers of shrinkage.

Corporate policies have the potential to impact upon the performance of stores in a retail estate in two ways:

- Average level of loss for the estate as a whole
- Consistency in the level of loss between stores within the estate

If corporate policy has an impact on the average level of loss for an estate then it would be expected that companies with different policies will experience different levels of shrinkage. The method used to test for this is to compare the average level of loss between companies. Reviewing the findings from the four case study companies, it is clear that there are substantial differences between the average levels of loss between the estates.

The implication of this finding is that the reason some companies experience relatively low shrinkage, such as the situation with Company A, is a consequence of their corporate policies. Likewise, other companies, such as Company C, experience relatively high shrinkage as a consequence of their corporate policies.

The issue of consistency of the level of loss of stores within an estate considers the ability of each store to meet a given level of performance. This reflects the ability of corporate policy to be

deployed consistently across all the stores within an estate. The method used to test this is to compare the standard deviation between estates of the level of stock loss for their respective stores. Once again, a review of the findings from the four case study companies revealed substantial differences between the standard deviation of the level of loss between the estates.

The implication of this finding is that corporate policy is being applied more consistently in some estates than in others. This leads to similar levels of loss at each of the stores in one estate, such as company A, whilst in another estate, such as Company B, the levels of loss per store exhibit greater variation. The implication of this difference is that corporate policy is being applied more consistently at Company A than at Company B.

6 Findings: What Makes a Store Hot

In order to answer the second objective of the research, “what makes a store hot” two avenues of research were followed (1) desk research into data sets from the four case study companies to investigate their levels of loss and operational practices in their stores and (2) fieldwork in a sample of stores to gather qualitative data on their practices and performance.

Key Factors that Drive In-Store Loss

Differences in company size and the ability of different organisations to answer only some of the questions presented by the research team meant that only tentative conclusions could be drawn from the quantitative data collected from the companies. The data does, however, offer some indicative findings on the role of different factors in explaining the differences in rates of loss within each retail estate. These are summarised in Table 4 and discussed below.

Table 4. Key Correlations Across the Four Data Sets

| Factors | Correlation | | |
|--|-----------------|-----------------|-------------|
| | <i>Positive</i> | <i>Negative</i> | <i>None</i> |
| Total shrinkage and staff turnover | ✓ | | |
| Age of store and unknown shrinkage | ✓ | | |
| Time of refit and shrinkage | ✓ | | |
| Manager at store and shrinkage | | ✓ | |
| Manager at store and staff turnover | | ✓ | |
| Turnover of manager and shrinkage | ✓ | | |
| Number of shoplifters and staff dismissals | ✓ | | |
| Number of shoplifters and shrinkage | | | ✓ |
| Company risk category and shrinkage | | | ✓ |

The data presented above can be grouped into five areas for analysis. These are: staff turnover; role of the manager; fabric of the store; offending behaviour; and company risk categorisation.

Staff Turnover

It was found that levels of staff turnover were positively related to rates of store shrinkage. That is, higher staff turnover is associated with higher shrinkage. As way of an explanation of this relationship, it is possible that a constant supply of new store staff will mean that the overall level of experience and job-specific knowledge amongst the work force will remain low. This in turn can lead to higher levels of mistakes (product being damaged, coding, pricing and charging errors etc) and lower levels of vigilance (staff are busy learning the job and not acting as the eyes and

ears of security). High levels of staff turnover could also be a symptom of a staff theft problem, which in turn would increase levels of shrinkage.

Role of the Manager

Issues relating to the manager of the store generated a number of interesting correlations from the data sets. Firstly, the length of time the manager had been at the store was negatively correlated to levels of shrinkage – the longer the manager had been at the store the more likely shrinkage was to be lower. Secondly, the length of time a manager had been at the store was also negatively correlated with staff turnover – the longer the manager had been at the store, the lower staff turnover was likely to be. Thirdly, manager turnover was positively correlated with levels of shrinkage – the more times a store had a new manager, the more likely it was to have higher levels of shrinkage. Taken together, longevity of service by managers seems to be an important aspect in understanding why shrinkage may be low in some stores. Certainly the longer a manager has been at a particular store, the more likely they are to understand the problems associated with it, and develop appropriate responses⁴⁷. Similarly, long serving managers are more likely to build up a positive rapport with staff, which may in turn improve staff morale and therefore reduce the likelihood of staff leaving the store – a factor that was also positively correlated to levels of shrinkage.

Fabric of the Store

Two related factors were found concerning the age of the store and the length of time since it was last upgraded. First, a positive correlation was found between the age of the store and levels of unknown shrinkage – older stores were much more likely to have higher levels of unknown loss. Secondly, the time since the last refit was positively correlated with overall levels of shrinkage – the longer the time since the store was upgraded, the higher the level of shrinkage was likely to be. There are at least two possible explanations for this. First, older stores are much more likely to have less modern equipment, which may be more prone to generating shrinkage, such as old style refrigeration units (causing higher levels of process failure-related shrinkage). They may also not be purpose built installations, increasing the likelihood of design related shrinkage problems (damage to stored product, the need to store vulnerable products outside due to lack of space etc). Secondly, older stores are less likely to be perceived as ‘flag ship’ stores within the organisation, which in turn could mean that less experienced management staff are used in these stores (a test bed for young managers), and there is a greater turnover of them as ambitious managers move on to better perceived stores.

⁴⁷ It could also be argued that the longer they are at a particular store, the more likely they to have worked out ways of hiding their shrinkage as well!

Offending Behaviour

The rate of staff dismissals was found to be positively correlated with the number of shoplifters apprehended, i.e. stores with high rates of dishonest staff also had higher rates of shoplifting. The link between staff dismissals and number of shoplifters apprehended is interesting because it could indicate the role of the area in partly explaining rates of shrinkage. As detailed earlier, the social geography argument suggests that poor areas provide a ready pool of offenders, some of whom happen to work for the organisation for a little while, while others enter the store to steal, sometimes in collusion with staff working in the outlet.

However, no relationship was found between the overall rate of shrinkage for a store and the number of shoplifters apprehended. The lack of correlation between the number of shoplifters and the rate of shrinkage is extremely interesting and reinforces data presented elsewhere⁴⁸ that shop theft is perhaps not the most important variable in explaining rates of shrinkage.

Company Risk Categorisation

Finally, the data sets from the four case study companies showed that there was no correlation between the store risk categorisation used by a company and the rate of shrinkage. Stores that were perceived by a company to be high risk did not have significantly different rates of shrinkage than those stores that were categorised as low risk. This could be in part due to the success with which a company has responded to the perceived risk at the store and developed appropriate strategies accordingly i.e. those stores given a high risk are given higher levels of protection which accordingly contains losses to a given level. However, it could also be that the measures used to identify risk are inappropriate, reflecting the inability of current risk scoring systems to adapt and reflect change over time.

Summary

The analysis of the quantitative data provided by the case study companies generated several findings that help explain why some stores are more prone to high levels of shrinkage than others. Summarising these findings, two general points emerge. First, people-related factors seem critical, especially the role of the store manager and their relationship with store staff. Stores with low shrinkage seem to have managers that are well established and have a good relationship with their staff, which in turn appear to reduce levels of staff turnover. Secondly, the nature of the store itself plays a role in explaining the rate of shrinkage. In particular, it appears that older stores that may not be purpose built or un-refurbished stores without up-to-date retail and security equipment are more likely to have higher levels of shrinkage.

⁴⁸ Beck et al (2003) op. cit.

Findings from Fieldwork Conducted In-Store

The case study investigation consisted of an examination of two pairs of matched stores in each of the four case study companies. Data was gathered through interviews with the store manager and other members of staff and by a review of store processes and practices. The findings from each case were summarised and the four sets of findings compared and contrasted to identify common themes between them.

The result of this cross case analysis was the emergence of four themes encountered in those stores that suffered high shrinkage and also four practices used by those stores with low shrinkage. These themes and practices are discussed below.

Themes Associated with High Shrinkage

Assessment of the findings from the four case studies revealed four themes that were associated with high loss stores. These themes are listed below in Table 5.

Table 5 Themes Associated with High Shrinkage.

| |
|--|
| Failure to embrace accountability |
| Company procedures not followed |
| Lack of management support, leadership and control |
| Store management does not know the extent of the problem |

These themes are discussed below where quotes from the interviews have been used to illustrate the findings as appropriate.

Failure to Embrace Accountability

In general it was found that the store manager and the other members of the management team see shrinkage as their responsibility. However a difference was noted in the attitude amongst the management teams of stores with high shrinkage. In those stores there was a tendency to blame their high levels of loss on factors outside their control including the store’s environment (its setting), the staff, outsiders and the parent company. These sentiments are visible in statements made by these managers when they claim:

“There is only so much we can do to control the situation.”

“The stock deliveries are never correct – we always inherit the problem.”

Contributing factors can exist that prevent this situation from being resolved. For example, many retailers move managers between stores as their careers progress or to periodically change the

management team. In many cases a history of store losses does not follow a manager through their career. Instead loss is only tracked for the stores, ‘When managers move store they are not held accountable for what’s left behind.’ This approach runs the risk that the failure to embrace accountability becomes institutionalised.

Company Procedures Not Followed

In all four of the retailers practices and procedures had been developed and deployed to minimise shrinkage. Examination of the matched pairs of stores uncovered differences in behaviours between the low loss and the high loss stores. A discernable difference was clear in that low loss stores tended to follow company procedures, and follow them well, while the high loss stores followed the procedures in a substandard way or disregarded them. Telling symptoms of this type of issue were revealed in the following comments:

“We should be doing 70 staff searches a week but we only ever manage 40.”

“We haven’t been having the weekly team shrinkage meeting.”

“Staff don’t fill in the wastage reports properly.”

“The backroom area always looks like a bomb site.”

In these and several other instances it was clear that the staff knew what the company procedures were, knew the reasons why the procedures existed and recognised that they were not followed. The reasons why this situation arose included:

- Poor discipline.
- Limited time meant that other procedures were prioritised.
- Conflicting performance measures.

Lack of Management Support, Leadership and Control

In several instances it was clear that the store manager was not providing leadership to the other store staff. The relationship either had not been established, for example because the manager was new to the store, or the relationship had broken down. A telling symptom of this was the existence of a ‘them and us’ culture where the manager was remote from other members of staff and there was a lack of trust between them. “I don’t trust my staff and they don’t do what I tell them to do.”

The lack of mutual support meant that even when the manager was able to control the store during the hours they were present, this control could not be assured at other times: “There is collusion between the security guards and the cashiers. The cashiers are incompetent. The head of the cashiers knows what to do she just doesn’t do it.” Without control, procedures for controlling

shrinkage are not universally applied. This leads to losses occurring and also provides an environment for internal and external theft to take hold.

Store Management Does Not Know the Extent of the Problem

Store managers have a myriad of tasks to perform in order to satisfy shoppers and retain a loyal workforce. Managing shrinkage is but one of the many tasks they have to undertake. Given that there is limited time and resource available to control shrinkage, this needs to be well directed in order to be effective.

The findings from the research indicated that store management in the Hot Stores did not know the extent of the problem. This lack of information meant they were not in a position to direct action to address issues, nor to ensure these efforts were effective. For example, data on the extent of shrinkage may not be available or it may be unreliable: “I can never reconcile my inventory....” Information may not be available that highlights the specific problems faced in a store. In a previous section of this white paper the importance of focussing attention on Hot Products was highlighted. Store management often lack the data to inform them which of the tens of thousands of lines they carry are the Hot Products: “I would have to say that Mach 3 is highly stolen in this store because that’s what everybody in the industry says.” Such ignorance leads managers in the Hot Stores to overlook the real areas of concern in their stores.

Finally, managers were dealing with shrinkage on an incident-by-incident basis. They did not keep a record of incidents or search for trends over time: “We don’t keep a record of security incidents in the store – we tell head office and then throw the data away.” This approach prevents managers from being able to assess the effectiveness of their actions or from identifying emerging trends in shrinkage.

Success in Meeting the Challenges

In contrast to the themes associated with high shrinkage stores, four practices were identified that were prevalent in the stores with low shrinkage. These practices are listed below in Table 6.

Table 6. Practices associated with low shrinkage

| |
|----------------|
| Accountability |
| Action |
| Attitude |
| Audit |

These practices are interesting from a research perspective and useful from a practitioner perspective as they are fairly definite acts performed by managers in the low loss stores that appear to lead to their success in meeting the challenges they face. In effect there practices are:

'The 4 'A's to Preventing Stores Becoming Hot'

Each of the four points are discussed below and illustrated with quotes from various interviewees.

Accountability

In direct contrast to the failure to embrace accountability observed in the Hot Stores, managers in the low loss stores take personal accountability for store performance. These managers owned the problem and the actions that control shrinkage. They saw it as their task to prioritise the management of shrinkage all day, every day by, “keeping my eye on the ball.”

The commitment of these managers to reducing shrinkage extended to their attitude that shrinkage is, “as important as sales.”

Action

Whereas some managers in Hot Stores were inclined to attribute their losses to factors outside their sphere of influence and control, managers in low loss stores acted to understand the context of their store and take appropriate actions to meet the challenges: “This is a tough store but we know it and develop plans accordingly.” Central to this was the belief that all procedures must be adhered to consistently: they must be robust, standardised and institutionalised. The effect of this was that the management team acted in a consistent manner. This prevented good control only existing for a limited proportion of the working week: “We know what we need to do – good procedures already exist.”

A telling symptom of this willingness to take action was the condition of the backroom areas – managers in the low loss stores ensured that these were kept neat and tidy as a message to all staff: “There is no reason why the backroom shouldn't be as clean as the shopfloor.”

Attitude

Summing up a number of variations around a common theme, the manager of one low loss store described his attitude to running the store as: “Vision. Mission. Obsession.” Whilst it is possible for any manager to deliver such words but without being able to act upon them, the attitude of this manager ensured such an approach transferred into action as was illustrated by a member of his store staff: “[name of store manager] has his finger on the pulse. He's a manager, you don't get many. Some people put the badge on but that doesn't make them managers.”

Not only were the managers in the low loss stores keen to take accountability and to act to resolve issues and maintain control, they sought to build a cohesive management team that shared this attitude: “You need the right people with you and for you. It’s about having a common goal and sharing it.” This attitude can be quite sensitive in the way it is delivered. Successful managers demonstrated an ability to understand the staff, be consistent and recognise when staff need help: “You have to be involved and talk to everyone in every department every day.” This highlighted that successful managers are not just driven by results but recognise that achieving their targets requires them to be supportive and flexible.

Audit

Central to good loss prevention is to access and use high quality, reliable data in order to understand the problems and how they change over time. Managers in low loss stores identified that auditing is necessary in order to identify opportunities to improve, to track changes in performance over time and to give feedback to the store team on the impact of their efforts:

“Measure success and celebrate when good.”

“We have a daily control routine and update the store team weekly on results.”

Information is used in these instances as a central element of the loss prevention efforts.

Summary

The fieldwork undertaken in the course of researching the four case study companies provided a rich account of the practices employed in the various stores. Each case study revealed findings that were unique to that retailer. In addition, the analysis across the four cases identified several common areas that help explain the difference between high loss and low loss stores. These findings point to the importance of store management in controlling shrinkage, with the absence of managerial control being associated with high loss and good management practices being associated with low loss.

7 Conclusions

This project sought to shed new light on a previously unexplored area. Anecdotally, retailers have long been aware that certain parts of their retail estate, the 'bad stores', are prone to higher rates of shrinkage than others. Explanations of this discrepancy have tended to focus on two polarised views: one suggesting it was as a consequence of the surrounding social geography within which the store was located (bad areas cause bad stores), while the other view suggested that the way in which the store was managed was critical to understanding differences in rates of shrinkage (low rates of shrinkage are associated with good managers). This study, through the use of four case studies has explored these issues in detail and the following conclusions can be drawn.

First, the role of the management team seems extremely important in explaining the difference between high and low performing stores. Evidence from the quantitative and qualitative data consistently highlighted key differences in the style and approach adopted, the importance of longevity of service and the need to build staff morale and confidence. Four key areas were identified in low shrinkage stores: Accountability, Attitude, Action and Audit. Better performing stores had managers who took *accountability* for the issue of shrinkage. They recognised it as a critical part of their job and prioritised it accordingly. Similarly, good stores had managers whose *attitude* was focused on developing their staff and seeing them as key members of the team. These managers were keen to work with their staff to improve their skills and generate positive staff morale. Moreover, low shrinkage stores were characterised by a strong adherence to procedures. Managers took *action* to make sure that staff constantly complied with them and took pride in the appearance of all parts of the store. Lastly, managers in better performing stores recognised the need to constantly monitor and measure the problem of shrinkage. They prioritised the role of *audit* and used data to help them develop shrinkage reduction strategies appropriate to their particular context.

Secondly, environmental factors cannot be excluded from the equation. The nature of the store itself was found to play a role in explaining some of the differences between good and bad stores. Certainly, advancements in technology and store design and layout mean that older stores are more likely to perform less well. Similarly, areas with high crime rates are likely to attract more customers and staff likely to steal. However, no evidence was found to show a statistical link between levels of shoplifting and rates of shrinkage, although there was some evidence that rates of staff dismissal and shoplifting were associated.

The overall conclusion from this study is that the way in which a store is managed is the key factor in explaining why some stores have higher rates of loss than others. Yes, the environment within

which the store is located does play a role, but good management teams recognise this and develop strategies accordingly to meet the challenge they face. As one of the managers interviewed for this study put it: “This is a tough store but we know it and develop plans accordingly.” Recognising the importance of management practices in explaining high shrinkage outlets will help organisations to not only understand the problem of hot stores, but also develop strategies to begin to identify them more effectively and reduce the problems they currently face.

8 Recommendations

This research has been focused on understanding and explaining the hot stores phenomenon rather than developing strategies to reduce it. There are a number of next steps that need to be taken to further advance our understanding and begin to incorporate what is now known about the various aspects of the hot concept into corporate shrinkage policies and practices. These are outlined below:

Hot Store Identification Tools

This study showed the lack of a relationship between the risk score given to a store and the rate of loss occurring at this location. What are needed are more sensitive tools to begin to identify the risk present within a store. There is a need to move away from being solely focused on the technical and physical characteristics present, such as the number of alarms, CCTV cameras and types of back doors, and instead incorporate some of the issues raised in this report such as process adherence and management practices. The tools also need to be capable of being far more dynamic – easily updated to reflect changes over time. Two types of tool need to be developed: one for external store use to provide input into corporate strategy, and one for internal use so that a store manager can begin to better identify why their store is suffering from above average losses, or help them to be further vigilante in keeping levels of shrinkage low. Each tool could be based upon a checklist with practical examples highlighting the measurement scales used.

Identifying Non-Theft Hot Products and Hot Processes

The work on hot products to date has been exclusively focused on those most likely to be stolen. Numerous shrinkage surveys have shown that theft is but one part of the problem. It is important therefore to look at those products that suffer non-theft related loss, such as date sensitive fresh products, damage sensitive fragile products and goods that are prone to pricing and coding errors. This information can then be used to begin to develop understanding of the key characteristic that make particular products vulnerable to shrinkage as well as understanding the relationship between susceptible products and poor processes.

Identifying Hot Managers

This study has shown that the role of the manager is very important in impacting upon the rate of shrinkage in a given location. There is also some limited evidence to suggest that as a particular manager moves between different stores the level of loss changes accordingly. It would be worthwhile therefore to look in more detail at this phenomena and attempt to map the movement

of a sample of managers within an organisation and identify whether there is any correlation between them and changes in levels of loss.

These recommendations were proposed to the ECR Europe Advisory Board and have been accepted as the basis for further research to be conducted in 2003-4.

9 Appendix I: Research Instrument

IDENTIFYING THE HOT SPOTS IN THE SUPPLY CHAIN

Hot Stores Information Request

*A Joint Project by Cranfield School of Management and
University of Leicester on behalf of ECR Europe's Shrinkage Group*

In order to explore the factors that may account for why certain outlets within a retail estate are more prone to higher levels of shrinkage than other stores, the research team need to collect information at three different levels: company wide policies, procedures and priorities, estate wide quantitative data on a selection of variables, and store level data from a small selection of outlets which have high and low levels of shrinkage. The following document outlines the key areas that the research team would like to collect data on.



Estate Wide Data

Where possible, this data is required for **EACH** of the stores within the entire estate (or the part of the company taking part).

For the purpose of this project, we are using the ECR definition of shrinkage, which is: losses due to internal and external theft (including cash), process failures (damaged goods, stock going out of date etc) and supplier fraud (goods under-supplied by third parties, but not your own distribution system). We recognise, however, that store data may not be available on supplier fraud and have therefore excluded this from some of the questions below.

Where possible, the information should cover the last financial year for which you have data. Please see the attached spreadsheet to assist in completing this part of the data request form.

1. Store Number
2. What type of outlet is it (use the company categories)?
3. How many hours per day is the store normally open?
4. What type of customer does the store attract (use company categorisation)?
5. If the company uses an area risk assessment scoring system, what score is given to the store?
6. Total loss as a percentage of sales
7. Percentage of total loss that is known and unknown
8. Of known losses, what percentage is:
 - a. Internal theft
 - b. External theft
 - c. Process failures
9. Number of shoplifters apprehended
10. Number of members of staff dismissed for dishonesty
11. How many times have staff been disciplined (this should be based upon disciplines carried out by store management and central management)?
12. What is the rate of staff turnover as a percentage of all staff employed at the store?
 - a. All store staff
 - b. Manager
13. What percentage of store turnover is due to staff leaving the company or moving within the company to another post/position?
14. How long has the manager been at the current store? (in months)
15. How long has the manager been with the company? (in months)
16. Which of the following security measures does the store have:
 - a. CCTV

- b. EAS
 - c. Store Guard
 - d. Security Manager
17. How old is the store
18. When was it last refitted/updated?

Company Wide Policies, Procedures and Priorities

This data will be collected in two ways, analysis of existing company documentation and interviews with senior staff. It is proposed to try and meet with the head of security/loss prevention and perhaps a senior member of the personnel team.

1) The Company Estate and Customers

- a) How does the company define the different types of outlets it has (ie hyper, super, convenience etc)?
- b) Does the company have a system of identifying the types of customers attracted to their stores?
- c) Does the company use a risk assessment scoring system to measure the areas within which stores are located? If yes, please provide details of how this score is calculated.

2) Issues of Security

- a) How is shrinkage defined within the organisation (do they consider process failure issues as part of the job of security/loss prevention etc)?
- b) How does the company view the problem of shrinkage within the organisation?
- c) What is the relationship between the head of security/stock loss and the Board and how often is shrinkage discussed at this level?
- d) Does the company have annual targets for levels of shrinkage and if so, who sets these targets?
- e) How clear are they in terms of the size of the problem and the threats facing the company?
- f) What methods are used to collect information on shrinkage (hard copy, database etc) and how often does it take place (as incidents occur, based upon regular stock audits)?
- g) What use is made of this data and who has access to it/how far is it circulated (for instance do store managers have access to this information for their particular outlet, do regional security managers have data for their region)?
- h) What role does this information have in setting targets, developing strategy and informing policy?
- i) Which department is responsible for collecting this information (security, audit, finance)?
- j) How does the company communicate the issue of shrinkage to their employees?

- k) Are there written security/shrinkage policies? (if possible collect copies). How is this policy communicated to staff?
- l) What is the company policy for dealing with persistent offenders (shoplifters)?
- m) How many and what type of staff are employed to deal specifically with security/shrinkage in the organisation (core team plus contract staff for instance)?
- n) How would they describe the style of security management adopted by the company?
- o) Are there any particular approaches adopted by the company to try and minimise shrinkage (do they see technology as key, staff training and incentivisation etc)?
- p) Does anybody within the organisation receive a bonus based upon levels of shrinkage? If yes, who and how is it calculated?
- q) Who ultimately has responsibility for shrinkage within the company, and where would responsibility lay if the levels of loss became unacceptable?
- r) Why do they think certain stores have higher levels of loss than other, and what are the key explanatory factors?
- s) How do they view the role of the store manager in controlling shrinkage?

3) Issues of Personnel

- a) What are the procedures for disciplining staff (different types of actions that can be taken, ie verbal warning, written warning, suspended etc)?
- b) How does this relate to store managers and who is responsible for their discipline?
- c) What are their impressions about the type of staff most likely to be dismissed from the company (for shrink and non-shrink issues)?
- d) How are staff at different levels within the organisation rewarded/given incentives/bonuses?
- e) What sort of training do staff receive and how much relates to issues of shrinkage?
- f) What characteristics do they look for in a store manager?
- g) What is the promotion path for store managers?
- h) How is their performance measured and assessed?
- i) Is there a hierarchy of stores (do successful managers move on to bigger stores or stores in better locations)?
- j) Why do they think certain stores have higher levels of loss than other, and what are the key explanatory factors?

Store Visit Data

From the list of stores provided by your company, we will select approximately four stores to visit (2 representing those stores with very high levels of shrinkage and 2 representing those stores with very low levels of shrinkage). The visit will comprise interviews with the store manager and other members of store staff, and observation by research staff of the overall operation of the store.

Note: the research team will need to inform store staff of the shrinkage definition they are using.

Upon arriving at the store, the researcher will consider the routine used to allow official visitors access to the store (is there a signing-in book, do staff insist upon all the details being completed, are they issued with a badge, are they shown somewhere to wait etc). When leaving the store are requested to fill in the visitor book again and return the badge.

Store Security

1 External

- a) CCTV (what areas are covered?).
- b) Alarm Systems (burglar alarm - who has responsibility for setting etc?)
- c) Fences (protection at the rear of the store).
- d) Access Control (look at how staff and visitors enter the store).
- e) Lighting (particularly the rear of the store).

2 Internal

CCTV

- (a) How many hours per day is the system live (ie an operator is watching)?
- (b) How good is the tape management system?
- (c) How many times have tapes been made available to the police in the last 12 months?
- (d) Does the store operate a rogues' gallery of persistent offenders? If yes, how is this communicated to store staff?
- (e) Does the store keep a log of incidents (if yes, summarise entries for last 12 months)?
- (f) Overall impression of the quality of the system, its location, its visibility within the store (are their entrance monitors, signage etc), its age, the extent to which store staff make use of it (both management and security staff).

EAS

- (a) Does the store use hard tags?
- (b) Does the store use soft tags?
- (c) Does the store keep a record of EAS activations (if yes, look through all available records and summarise)?
- (d) What is the attitude of store staff towards EAS?
- (e) Would staff like more or less?

Store Guard

- (a) Is the guard internal or contract?
- (b) How many hours of coverage per day does the store have?
- (c) Who decides when the guard works?
- (d) How long has the current guard(s) been working at the store?
- (e) What do they see as their main duties?
- (f) What do they view as the main problems facing the store?
- (g) How do they approach these problems?
- (h) Do they carry out staff searches/till checks/locker searches?

Staff Searches

- (a) Does the store have a policy of staff searches?
- (b) Who carries out the searches?
- (c) How often do they occur?
- (d) Is a log kept (if yes, summarise records for last 12 months)?
- (e) When was the last time the following people were searched:
 - (1) Store manager
 - (2) Deputy managers
 - (3) Security guard(s)
- (f) Does the store carry out car searches? If yes, as above.
- (g) Does the store carry out locker searches? If yes, as above.
- (h) Does the store use any other kinds of internal store security?

Attitude of management to shrinkage and their role in the outlet

- (a) How does the store manager view the problem of shrinkage within their store (something they can and should control, or something out of their control and simply an inevitable part of doing business in this area)?
- (b) What does he/she view as the most significant threats (internal, external, process failure)?
- (c) Who do they feel is ultimately responsible for shrinkage?
- (d) How often do they meet with their regional security manager?
- (e) Are there any particular approaches they have adopted to deal with shrinkage in their store?
- (f) How do they communicate the problem of shrinkage to store staff?
- (g) What type of training do they provide to new staff and what if anything relates to shrinkage?
- (h) What do they think is the key to successfully managing a retail store?
- (i) How do they view the staff they have currently working in their store (do they differentiate between management, shopfloor staff, full time, part time, temporary etc)?
- (j) What is their approach to dealing with underachieving staff (use the formal mechanisms provided by the company, try to deal with them informally – have chats, move them to other positions within the store etc)?
- (k) How do they see their future within the organisation (keen to progress, gone as far as they can, looking for other opportunities, it's a job that pays the mortgage etc)?

- (l) How long have they been at this store and how long have they been with the company?
- (m) How do they view the store they are currently managing (good store to work at, a means to get to a better store, a bad store offering few prospects)?
- (n) How do they view the area in which the store is located?
- (o) How do they view the customers who visit their store?

Attitude of shop floor staff to shrinkage

(try and speak to the person responsible for Health and Beauty, Beer Wines and Spirits and another member of staff)

- (a) How do they view the problem of shrinkage in the store?
- (b) Do they see it as something prioritised by store management?
- (c) What training have they received to deal with shrinkage (remember this includes process failures)?
- (d) How are messages about shrinkage communicated to them?
- (e) Have they been using any self-initiated means to either measure or try to reduce shrinkage in the store (such as counting, using defensive merchandising methods etc)?
- (f) What are their overall views about the store they work in (good place to work, well managed and safe; poor store, badly run with constant threats within and outside the store etc)?
- (g) How do they view the area in which the store is located?
- (h) How do they view the customers who visit their store?

Attitude of Store Security Staff

- (a) What do they perceive to be the key threats to the store?
- (b) What is their daily routine, what do they see as their main task (protecting the staff, protecting the stock, acting as a deterrent, arresting thieves, minimising loss etc)?
- (c) What are their views on the level of security within the store?
- (d) What would they add to improve the security of the store?
- (e) How do they interact with the security equipment in the store (use of CCTV, responding to EAS alerts, calls for assistance from beepers etc)?
- (f) Do they keep a record of security breaches, how do they report to head office?
- (g) Do they liaise with other stores in the area (radio links, sharing information about known suspects etc)?
- (h) What is their view on the way in which the store is managed?
- (i) How do they view the area in which the store is located?
- f) How do they view the customers who visit their store?

Observation by Researcher

The following factors will be considered when gauging the overall impression of the store:

- (a) Overall nature of surrounding area.
- (b) Outside the store – are the trolleys regularly collected, is the car park tidy and in good condition etc).
- (c) Quality of fresh produce.

- (d) Levels of on shelf availability.
- (e) Levels of inventory.
- (f) General décor and use of promotional material.
- (g) Cleanliness (check toilets).
- (h) Orderliness of backroom areas (is all the stock put away, are hot products stored separately etc).
- (i) General store layout (where are the hot products located?)