Moving Beyond Shrinkage:
Developing a Definition and Typology of Total Retail Loss

Abstract

While the term ‘shrinkage’ has been in use for over 100 years to describe retail losses, there continues to be little consensus on what it actually means and how it should be measured. As retailing becomes ever more complex and demanding, and a greater range of data sources become available, the traditional approaches to understanding and measuring loss in retailing seem increasingly anachronistic. Based upon extensive interviews and round table discussions with senior retail executives from Europe and the US, this article puts forward a framework for developing a more inclusive and broad ranging definition and typology of retail losses, using the umbrella term Total Retail Loss.

Keywords: retail crime; shrinkage; retail losses

Introduction

There is little consensus on what constitutes ‘loss’ within retailing nor how it should be measured. The terms ‘shrinkage’ and ‘shortage’ have been loosely applied to encapsulate some of the areas that generate loss but they are not terms enjoying a clear and agreed upon definition despite being in use for probably the last 100 years (Curtis, 1983; Maanenberg, 1985; Abelson, 1989; Chapman and Templar, 2006a; Chapman and Templar, 2006b; Bamfield, 2012). There continues to be wide variance on what is included and excluded when these terms are used, with some retailers using it to describe only those losses captured through discrepancies in inventory counts, while others add in additional types of loss recognized through other forms of recording practices.

The inclusion or exclusion of losses associated with the retailing of items such as food adds further ambiguity – should products that have been recorded as going out of date be included as shrinkage; what about those items that have been reduced in price to encourage a sale due to oversupply or a change in consumer demand, or products that have been damaged in the supply chain? Even more variability exists when the losses associated with what are sometimes called ‘process failures’ are considered – should those losses that are generated by mistakes within the business be included in the overall shrinkage figure, such as product set up errors, non-scanning at the till by members of staff, the reduction in sales caused by products being out of stock or shelves not being replenished accurately? Moreover, there is increasingly a tranche of losses that can be associated with discrete and purposeful decisions made by retail organizations as part of pledges and guarantees to consumers – price matching, compensation for poor service and guarantees of product availability – should these be included when a shrinkage value is being calculated? In addition, the growing breadth and complexity of the modern retail landscape is putting stress upon the applicability of traditional shrinkage definitions – how might losses associated with on line and so called Omni-channel retailing be measured and understood (Capgemini and The Consumer Goods Forum, 2015)?

It is therefore perhaps not surprising that the applicability of ‘shrinkage’ to act as an accurate descriptor of loss or as a means of retail businesses benchmarking themselves against others has been questioned – if one organization adopts a broad ranging interpretation of shrinkage while another chooses to use a very narrow definition, how can any meaningful comparison be made between the two (Beck and Peacock, 2009)? Moreover, this lack of definitional clarity can also make it difficult to decide who should have ownership of the problem – what is the remit of the ‘loss prevention team’ – does it focus only on malicious-oriented (crime-related) problems or should they be given responsibility for a broader constellation of retail concerns that might also be regarded as retail losses? It is within this context that this paper presents research focused upon firstly understanding how the retail sector identifies and understands the issue of 'loss' within their businesses, and secondly, the development of a new definition and typology that attempts to better capture the current and future landscape of retail losses.

Context

Problems Defining Shrinkage

When it comes to defining what is actually meant by these terms, there is much variance. For instance, Sennewald and Christman describe it as 'the difference between book inventory (what the records reflect we have) and actual physical inventory as determined by the process of taking one's inventory of goods on hand (what we count and know we actually have)' (Sennewald and Christman, 2008, p. xxiv). Purpora defines it more specifically as 'the amount of merchandise that disappears due to internal theft, shoplifting, damage, mis-weighing or mis-measuring and paperwork errors' (Purpora, 1993, p. 103) while Shapland focuses more on the value of goods and considers it to be 'the disparity between the financial value of stock acquired and sold and the financial value of stock left on the shelves' (Shapland, 1995, p. 273). Bamfield offers more detail by attempting to define the elements that are non-crime, such as 'error', which is regarded as 'a result of inaccurate decisions or failures' which include mispricing goods, not accounting for them properly, not reclaiming effectively from suppliers and under/over delivery of merchandise with the wrong specification. He also talks about 'processing losses', which are instances where it may be 'impossible to sell every item of inventory at the authorized price', and 'waste' (price reductions due to product deterioration and damage) being part of shrinkage. Together these non-crime losses are grouped together under the general heading of administrative/internal error (Bamfield, 2012, p. 99).

Chapman and Templar have offered the broadest definition of shrinkage to date: 'intended sales income that was not and cannot be realized' (Chapman and Templar, 2006b, p. 863), looking at the issue primarily as one focused on the lost profit opportunity of the merchandise brought in to a retail business. They view any loss in the intended profit (however that may be calculated) as a loss to the business, although they tend to rely, like many other others, upon what has been described as the 'four buckets of shrinkage' to categorize their losses (Beck *et al*, 2001).

The 'Four Buckets' of Shrinkage

Most of the published surveys and reports on shrinkage typically break it down into four areas of loss: employee/internal theft; customer/external theft; administrative/paperwork error; and vendor/supplier fraud (Bamfield, 2011; Hollinger and Adams, 2014). These categories have dominated the reporting of shrinkage for decades. While the first two: internal and external theft, can be readily understood and defined, the latter two are much more difficult to categorize – administrative error as a catch all phrase can include a wide range of types of losses, while vendor/supplier fraud is a notoriously difficult category to try and identify and measure with any precision (Chapman and Templar, 2006a; Beck and Peacock, 2009).

Known and Unknown Shrinkage[i]

It is often very unclear from the existing definitions and descriptions of shrinkage the extent to which both known losses, where the cause of the loss is apparent, and unknown losses, where no clear identifiable cause can be identified, are included. It would seem that virtually all published definitions and calculations rely heavily upon the difference between expected and actual stock levels/values, which, depending upon when the stock audit took place, will rarely if ever provide any meaningful understanding as to the root causes of the loss (Bamfield, 2012).

In some circumstances, the loss could have occurred almost a year ago – did the missing item ever arrive, was it thrown away but not recorded as such, did a member of staff steal it, was it taken by a customer, did a member of staff not scan the item at the checkout? The possible reasons for the loss are many and varied but what is usually very clear is that the cause of loss is unknown and remains so despite the best intentions of those who may be tasked to speculate about possible reasons.

The Location of Shrinkage

Given the general reliance upon store stock audits as the primary source of shrinkage data (Chapman and Templar, 2006a) perhaps it is not surprising that most discussions of shrinkage are focused upon the traditional retail store. However, losses can occur throughout a retailers' supply chain and while some companies do collect shrinkage data in their distribution centers, there is little consensus on the boundaries of a retail supply chain and what elements of loss within it would/should be included in a shrinkage calculation (Beck, Chapman and Peacock, 2003). This is becoming more relevant as 'Omni channel' retailing increasingly blurs the 'location' of the store and the shopper (PwC, 2014; Voropanova, 2015).

The Measurement of Shrinkage

Putting a value on shrinkage also generates a significant amount of variance. Some authors suggest that the majority of retailers calculate their shrinkage at retail prices, with between 20% and 40% using cost price or a combination of cost and retail prices (Chapman and Templar, 2006a; Bamfield, 2012). Using retail value typically generates a much bigger shrinkage number, which can be useful for drawing attention to the problem, but it can also generate a misleading number. For instance, some respondents to this research readily identified ways in which changes to the retail price could mask known shrinkage problems (such as the impact of price increases on the value of current and previous stock holdings), or the difficulty of calculating the retail price of a product in a sector that is highly driven by sales and discounting.

Shrinkage Surveys

The retail sector is not short of surveys trying to ascertain the scale and nature of the shrinkage problem it faces. In the US there is the longstanding National Retail Security Survey, while more globally there have been various sweeps of the Global Retail Theft Barometer, covering a varying number of countries (Hollinger and Adams, 2014; The Smart Cube, 2015). In addition, many surveys have been undertaken over the years covering particular retail sectors and a range of different countries (Beck and Bilby, 2001; National Supermarket Research Group, 2003; Guthrie, 2003; Grasso, 2003; Association of Brazilian Supermarkets, 2005; Miller, 2006; British Retail Consortium, 2012; Hollinger and Adams, 2014; The Smart Cube, 2015; Association of Convenience Stores, 2016; Retail Knowledge, 2016). Virtually all of these surveys rely upon respondents providing a 'shrinkage' figure with varying degrees of explanation about what should be included and excluded from this number. They then usually request that the respondent provide a best guess or estimate of the likely causes of the shrinkage using the typical four buckets of shrinkage outlined above.

Given that most definitions of shrinkage are based upon data derived from variance in expected and actual stock holding, the data is almost always a measure of unknown loss. From these estimates the surveys then calculate the apparent causes of loss, with some carefully tracking and micro analyzing annual changes and differences between countries and retails sectors based upon this data. Some authors have been highly critical of this approach:

> Attributing known losses to these [loss] classifications is fairly straightforward. The problem arises with the inclination of business and academia to apportion a value for total shrinkage, i.e.

> known and unknown shrinkage, to these categories. Instead of an honest answer along the lines of: Retailing is a complex business, there are many mechanisms through which shrinkage can occur and we don't know which ones apply in this instance, there is a tendency to use judgement/estimation/guess work to apportion unknown shrinkage to each category. Despite the fundamental weakness, this erratic approach is the default mechanism all too often used to inform management thinking and direct investments in loss prevention solutions when faced by a lack of hard data (Chapman and Templar, 2006b, p. 870).

Others have highlighted similar problems: '[the data] can only been seen as a measurement of how respondents currently feel about each of the factors they are requested to make estimations about – they are socially constructed and more than likely a distorted picture of the problem based upon personal prejudice (Klemke, 1992, p. 124).

Without doubt, some of these surveys have played an important role in helping the loss prevention industry understand how it is thinking about the problem of loss. Other parts of these surveys, which for instance, focus upon the extent of the use of various approaches to managing loss, have been important in providing benchmark data. But the rapidly changing retail landscape, together with the way in which retailing is not only experiencing a broader range of losses, but is also growing its capacity to collect and analyze data on them, would suggest that a new approach to benchmarking retail losses may well now be required.

Methodology

The project utilized a number of different methodologies – initially, an extensive literature review was undertaken to understand how current definitions of loss and in particular the various terms relating to shrink and shortage, have evolved, been defined and used by academics and practitioners. This was then followed by interlinked phases of data gathering, utilizing an inductive approach focused upon allowing theory to emerge from a series of observations and interactions with senior representatives of retailers, manufacturers, industry consultants and companies providing support services (Goulding, 2002). The research adopted a Grounded Theory approach focused upon using a set of rigorous research procedures that allowed the conceptual categories of retail loss to emerge as the research progressed (Locke, 2001; Oktay, 2012). As such, no preconceived notions of what constituted retail loss were initially put forward and instead respondents were offered the opportunity to describe how they viewed retail loss using their own words. Later stages of the research then enabled a more deductive approach to be adopted, focused on beginning to test the emerging framework that had been developed from the earlier phases of the research[ii].

Through industry links, three data collection methods were developed. The first was based upon a questionnaire sent to a small selection of loss prevention executives in European retailers, soliciting information on how they currently defined and measured retail losses. All were current members of the ECR Community Shrinkage and On-shelf Availability Group. In total, five retailers responded to this initial scoping phase of the research; four were Grocers with the fifth focused primarily on health and beauty-related products. The companies had a combined retail turnover of $179 billion.

The second data collection method was based upon 100 interviews with senior directors in a number of the largest retailers in the US. The retailers were self-selecting based upon an email sent to Heads of Loss Prevention via the Retail Industry Leaders Association's Asset Protection Leaders Council. Of those contacted, 10 agreed to participate covering a range of types of retailing, including: Grocery; Home Improvement; Pharmacy; Department Store; Art and Crafts; Sporting Goods; and Auto Parts. In total, these companies represented annual sales in excess of $859.6 billion or 27% of the total US retail market (To protect their anonymity, none of the companies that took part in this research will be named).

It was important to solicit views from executives not only in Loss Prevention but also from other functions as well, including: Internal Audit, Accounting/Finance, Supply Chain; Risk Management; Store Operations; Merchandising; Omni Channel; Product Development; Stock Controllers; Analytics; Information Services; Organized Retail Crime; and Safety. The majority of those interviewed were at either Vice President or Executive Vice President level together with a number of function Directors and subject-specific specialists. The data was collected using an interview schedule focused upon gaining an understanding of how interviewees understood and defined retail 'losses' from their particular business perspective, seeking to garner, in their own words, the typology utilized and the categories included and excluded. Of particular importance was the way in which they described the difference between what they regarded as retail 'costs' (planned and necessary expenditure in order for the business to achieve its goal of making a profit) and various forms of what were described as 'retail losses', a term left purposefully open to encourage as broad a discussion as possible.

The final data collection method was based upon a series of workshops and focus groups with loss prevention representatives from a range of European retailers and manufacturers. These sessions took place over an 8-month period and lasted on average two hours with the number of representatives ranging between 15 and 40. In total, 4 sessions were held and delegates were provided with an overview of the findings to date, together with an opportunity to provide feedback on the emerging themes – detailed notes were taken at each of these sessions.

By using both RILA and the ECR Community Shrinkage and On-shelf Availability Group the choice of participating retailers was clearly limited to those who were members of these groups. These are typically large retailers and, in the case of the ECR Community Group, predominately Grocers. Therefore, the views of smaller retailers are largely absent from this research as are the views of some specialist retail companies and businesses not operating in the US and Europe. As with any research on commercial organizations, access is always problematic for researchers – they are wholly reliant upon those companies that are willing to participate and their views will inevitably feature prominently in the final analysis (Yin, 1993). However, by utilizing retailers from across both the US and Europe and ensuring a number of different data collection approaches, it is hoped that the results are largely representative of a reasonable range of retailers.

Findings

Differentiating Between Retail Costs and Retail Losses

One of the difficulties of benchmarking any retail business using the indicator of 'shrinkage' is the problems associated with understanding what categories of retail 'loss' are included or excluded, particularly under the rather catch all terms of administrative error/process failures (Beck and Peacock, 2009). Some companies taking part in this research adopted very strict criteria – shrinkage is only the value of their unknown losses based upon the difference between expected and actual stock number/values, with anything else being regarded as known and therefore not included in the calculation. Other companies were much more inclusive, incorporating a number of other types of loss, ranging from damages, wastage, spoilage and price markdowns, to the costs of burglaries and robberies. Some of the respondents, however, were increasingly concerned about the continuing applicability of the term 'shrinkage' in a modern retail context:

> Listen, I think the word has become obsolete because loss prevention has evolved into asset protection, and now it's asset profit and protection, and god knows where it's going to be three years from now… the names have changed, the roles have changed, the roles have gotten significantly wider, but we still hang on to this word that we've been using that describes something that we did 100 years ago, so I'm kind of fascinated that we still… I actually don't like using the word shrink – think about it, look how complicated retail has become right? Before it would just be stores, and now we're looking supply chain, you're looking at corporate, you're looking at online… it's becoming complicated and quite frankly shrink just doesn't, it's just not it. (Resp. 87).

Part of this definitional variance seemed to be based upon how respondents interpreted the difference between what could be regarded as a 'loss' compared with a 'cost', the latter being viewed as everyday planned and necessary expenditure in order for the business to achieve its goal of making a profit. Indeed, the ways in which respondents described this difference was highly instructive in understanding why there seems to be such variance in what categories of 'loss' are included/excluded within organizational definitions of shrinkage. Respondents employed a veritable smorgasbord of phrases and terms to describe the difference between a cost and a loss, including: controllable and uncontrollable; planned and unplanned; recoverable and non-recoverable; intentional and unintentional; budgeted and unbudgeted expenditure; recorded and unrecorded; agreed and not agreed expenditure, to list but a few. A common distinction, however, was offered by one respondent: 'There is a sense that when it becomes recordable then it becomes regarded as a cost whereas if it is unknown then it is a loss' (Resp. 8). Another said: 'controllable is cost and uncontrollable is loss … [cost is] something I purposefully decided that I am willing to take on whereas a loss is something I can't control' (Resp. 6). This distinction was particularly blurry when it came to losses that were associated with retail margin, such as markdowns and discounting practices:

> Markdowns; that's just a cost of doing business (Resp. 45); Markdowns are a cost of doing business, the business may want to record the value of the markdowns but they are a cost and not a loss (Resp. 5); The issue comes down to what we call it and how it is accounted for within the business. For some it is just part of the cost of doing retail business – an inevitable and acceptable part of the game of selling goods to consumers while trying to make a profit (Resp. 97).

Another respondent only considered the loss of physical items as a loss – margin losses were simply part of costs, whereas another kept their definition really very simple: 'loss is a cost that you don't need to have' (Resp. 19). However, a considerable number of respondents made a key distinction between the 'value' of the outcome and how this differentiated costs from losses:

> '… costs – they bring value to the business, they are incurred because there is a perceived positive purpose in having them – they are part of the revenue generation process and without them profits would be negatively impacted' (Resp. 61); Losses are things which if they didn't happen there would be no negative impact upon profitability, they do not offer any real value to the business and simply act as a drain on profitability (Resp. 88).

Others agreed: 'For me costs are decisions that are made to drive business outcomes – it's an investment, cost is an investment. So we are a cost center, profit protection is a cost center, it's an investment [the business is] investing in us to get a result of less loss. Losses on the other hand don't offer any value at all' (Resp. 90).

It was also instructive to hear how some respondents adopted a process of 'normalizing' what some considered to be losses into costs: '… we plan a lot of those costs [possible types of losses], so when we're looking at it from a planning perspective, we have that built in – anything that we can account for and process and know what it is, we take more so as a cost rather than a loss, when we're defining it' (Resp. 66). Another talked about how the planning and budgeting process enabled many losses to be redefined as costs: 'if it goes above budget then it becomes a loss otherwise it is a cost' (Resp. 84). Interestingly, one respondent reflected upon the dangers of this approach of 'hard baking' losses into costs:

> People always viewed it [worker's compensation] as a cost of doing business but I think we've been incredibly innovative and we've shown that no, you can really change the way we do things … when you view it as a cost to doing business, that's when you lose innovation and when you lose really looking at how do you prevent [it]. We've done some incredibly strategic things around here in that area, in particular, I can just remember the conversations when we were doing it, it was like, a lot of people thought don't mess with that, that's just going to be what it's going to be, it's just going to gradually increase every year' (Resp. 78).

This is a good example of how the act of labelling something as a 'cost' drove certain behaviors, particularly when a budget or target was set for a given cost/loss. It is also worth noting that many respondents adopted a much more accepting tone when types of expenditure were described as 'the cost of doing business' – a reassuringly benign phrase, which seemed to absolve them of taking responsibility for the consequences: 'we try and convert as much of this [losses] to costs – it's then not on my agenda anymore – I deal with shrink' (Resp. 1).

Defining Total Retail Loss

From the interviews with senior US retail executives and feedback from the roundtables held in Europe, a proposed definition of costs and losses was developed:

Costs:

Expenditure on activities and investments that are considered to make some form of recognizable contribution to generating current or future retail income.

Losses:

Events and outcomes that negatively impact retail profitability and make no positive, identifiable and intrinsic contribution to generating income.

Using these definitions, various types of events and activities could then begin to be categorized accordingly. For example, incidents of customer theft can be seen to be a loss – the event and outcome plays no intrinsic role in generating retail profits – it makes no identifiable contribution whatsoever and were it not to happen, the business would only benefit. Alternatively, incidents of customer compensation, such as providing a disgruntled shopper with a discounted price, can be seen to be a cost. In this case, the business is incurring the cost because it believes that by compensating the aggrieved consumer they are more likely to shop with them again in the future – the policy of compensating is regarded as an investment in future profit generation and is therefore categorized as a cost and not a loss.

Another example of a loss is workers' compensation, where a retailer will cover the legal, medical and other costs associated with an accident at work, such as a member of staff being hurt falling off a ladder. There is no intrinsic value to the business of a member of staff incurring an injury while at work – if it had not happened, the business could only benefit through not having to pay out for the consequences of the event. It is therefore a loss and while a number of respondents to this research argued that it is a predictable and recognizable problem that can and is budgeted for, it still remains an event that ideally the retailer would prefer not to happen as it impacts negatively on overall profitability.

In contrast, expenditure on, for instance, loss prevention activities and approaches, such as employing security guards or installing tagging systems can be seen as a cost. The retail organization has committed to this expenditure because it feels there will be some form of payback from the investment – lower levels of loss which in turn will boost profits (whether this payback is either measured or actually achieved is of course open to debate).

What these examples focus upon is not whether an activity or event can be controlled or not, or that the incurred cost was planned or unplanned, but upon its fundamental role in generating current or future retail income. Where a clearly identifiable link can be made between an activity and the generation of retail income then it should be regarded as a cost, where as all those activities and events where no link can be found should be viewed as a loss[iii].

Before moving on to think about the range of types of loss that might be included in a Total Retail Loss typology, it is worth exploring in a little more detail a range of costs that have sometimes been included within various definitions of shrinkage and retail loss and what a number of respondents to this research described as 'margin eroders'.

Margin Eroders – Cost or Loss?

What became apparent from the research is that there are a number of events and activities that negatively impact upon retail profitability but do not meet the criteria of being a 'loss'. These were often described by respondents as 'margin eroders' – planned and unplanned activities and behaviors which, strictly speaking, negatively impact upon overall retail profitability, but nevertheless, can be seen as having a beneficial role to play in helping the business generate current and future profits. Respondents to this research frequently described them as the:

> 'costs of being a retailer – part of the business of trying to sell stuff to customers' (Resp. 3); 'Mark downs are typically baked into business assumptions across the year – we know we are going to have to do it and it is just the cost of doing business as a retailer. That's not to say we don't monitor the number internally, it's just we wouldn't see that as a loss' (Resp. 60).

In this respect they were seen as having some form of identifiable role to play compared with losses, which, as detailed early, have no intrinsic value whatsoever to the business. For example, product markdowns, customer guarantees, staff discounts, price matching guarantees, customer compensation, food donations and so on. This is not to say that a business would not want to measure and monitor the extent to which these factors erode margin and business profits in order to gauge whether they remained a good strategic investment, but they should be viewed as something different from retail losses – they are part of the costs of being a retailer and as such it is suggested that they should not be included in the Total Retail Loss Typology.

Contextualizing Total Retail Loss

In developing the categories of Total Retail Loss it was important to draw a distinction between the types of loss that can be **Measured**, and measured in a way that is **Manageable** for a modern retail business, and those that cannot. In addition, it was important to consider the value of collecting data on a given loss indicator – is it **Meaningful** for the business to monitor this particular loss variable – will its analysis offer potentially actionable outcomes that may help the business meet its objectives (Hope, 1991)? As one respondent said: 'I think the biggest key in a lot of this keeps coming back to can we apply a number to it with some level of accuracy? If we can, then I think it becomes very productive to measure it as a loss' (Resp. 90). Another put it rather succinctly: 'measurement is key and you can't measure a mystery' (Resp. 16).

There is little point, therefore, developing a typology made up of a series of categories that are either impossible or implausibly difficult to measure or once measured offer little benefit to the business undertaking the exercise. For example, most retailers would no doubt be keen to understand how many times items are not scanned at a checkout, and while it is theoretically possible to measure this, the reality for most retailers is that the cost would probably be prohibitive to do on a regular basis. Determining whether proposed loss categories met the 3 'M's test (**M**anageably **M**easurable and **M**eaningful) was an important part of creating a typology likely to achieve any form of adoption across a broad range of retail formats.

It is also worth noting that while this article is advocating the use of the term 'Total Retail Loss' to better capture the range of losses occurring across the retail landscape, it fully recognizes that the associated typology does not necessarily encompass every form of loss that a retailer could conceivably experience. The word 'Total' is being used in this context to represent a much broader and more detailed interpretation of what can be regarded as a retail loss, rather than necessarily claiming to be a reflection of the 'entirety' of events and activities that could constitute a loss. No doubt in the future the scope and range of 'Total Retail Loss' will change to accommodate new forms of manageably measurable and meaningful losses and this is to be welcomed.

It is important to note that the Typology presented in this article is designed to enable the 'value' of retail losses to be calculated and not necessarily the number of events – where an associated 'value' cannot be calculated or there is no loss of value associated with an incident, then this should not be included. For instance, if a shoplifter is apprehended leaving a retail store and the goods they were attempting to steal are successfully recovered and can be sold at full value at a later date, there is no financial loss associated with this incident. That is not to say that the retailer may still want to record the fact that an attempted theft took place and was successfully dealt with, but that it would not be recorded in the Total Retail Loss Typology. In this respect the Typology is recording the value of retail losses and not their prevalence. However, if in the above example, some of the products that were recovered from the would-be shoplifter could not be sold (because they had become damaged), then their cost price would be included in the category of 'External Theft' as the retailer has genuinely incurred a loss through this event.

The Total Retail Loss Typology

Outlined below in Figure 1 is the proposed typology of **Total Retail Loss**, organized firstly around four 'centers' of loss, then breaking those down into losses that are either known or unknown before further dividing the known losses into malicious and non malicious in nature. It then outlines the 31 categories of know loss identified by the research as being manageably measurable and meaningful to a broad range of retail communities.

Figure 1 The Total Retail Loss Typology

Locating Total Retail Loss

When losses are predominantly/exclusively focused upon the loss of stock, as is the case with existing definitions of shrink/shrinkage/shortage, then the location of loss is largely determined by where the stock can be counted – usually the physical store or in some circumstances the distribution center. However, when the definition of loss is broadened to take into account all events and outcomes that negatively impact retail profitability and make no positive, identifiable and intrinsic contribution to generating income, the range of possible 'locations' inevitably increases beyond just the store and the distribution center.

It is therefore proposed to group the losses under four 'centers' of loss, only some of which might be actual physical locations. When deciding what categories of loss should be allocated to each of these centers, the practicalities of measurement played an important role as did the extent to which the losses could be in some way controlled by those operating in each of these centers. Of course, the retail environment is complex and trying to achieve a structure that would satisfy all variants of retailing is impossible and so a degree of compromise is inevitable. A case in point is E-commerce where there is little standardization in how it is organized and operated across different retailers (PwC, 2014). At the same time, it is also an increasingly important part of the future of retailing and is already generating new forms of loss that need to be recognized and managed (Trlica, 2015).

Given this, the research identified four centers of loss:

Stores: Losses that occur in the physical buildings owned or rented by a retailer where customers can purchase products and where E-commerce activities may be undertaken such as shipping of product, customer pickups and returns.

Retail Supply Chain: Losses occurring across the entire process of manufacture, transportation and storage of products for which the retailer has ownership and liability. This includes where appropriate, E-commerce activities such as managing fulfilment centers, shipping of product to customers and dealing with returns.

E-Commerce: Specific losses related to the provision of goods and services provided through some form of on-line/Internet-based interface, enabling customers to purchase goods/services without necessarily visiting a physical store.

Corporate: A category of losses which are typically related to the broader activities of the business, beyond those necessarily occurring in stores, the retail supply chain or E-commerce, or where the overall loss is not allocated directly to these centers.

Known and Unknown Losses

The Typology then breaks losses incurred by retailers down into two types – those that are **unknown**, where the cause is unidentifiable, and those where the cause is **known**, with a reasonable degree of certainty. As detailed earlier, most existing measurements of shrinkage are based upon the difference between the value of expected and actual inventory levels in retail stores. For most retailers, this generates an unknown loss number – the collection process rarely if ever generates data that might give a sense of how losses occurred. It is important, therefore, that losses recorded in this way are recognized for what they are: 'Unknown Stock Loss', as the number only relates to lost stock and the causes of these losses are typically unknown.

There are then losses where the cause of the loss is known, sometimes with a high degree of certainty and at other times with a lower level of confidence. For instance, a product that has gone beyond its sell by date and has to be thrown away is often recorded by a retailer – the value of the items discarded is known, as is the cause. Equally, some retailers request that staff record the value of items where discarded packaging has been found in a store, strongly indicating that it has been stolen by a customer, or where an on-hand count from one day to the next reveals a significant and obvious loss of a product (through for instance a suspected sweep theft at the shelf). In these instances, then the loss should be recorded as incidents of 'Known External Theft' – the degree of confidence in the cause of the loss is lower than in the first example, but as long as the retailer has recognizable policies and practices in place to record these types of loss, then it still has value.

As can be seen in Figure 1, the research has identified 31 types of known loss that are included in the Total Retail Loss Typology covering a wide range of losses across the retail enterprise and incorporating events and outcomes beyond just the loss of merchandise (it is not possible to describe them all in the article, but a description of each can be found in Beck (2016).

Known Losses: Malicious and Non Malicious

It is proposed that the causes of known retail losses can be subdivided into two groups: malicious and non-malicious forms of loss (Beck and Peacock, 2009). 'Malicious' refers to those activities that are carried out to intentionally divest an organization of goods, cash, services and ultimately profit, while 'non malicious' relates to events that occur within and between organizations that unintentionally cause loss. The importance of understanding the intentionality of a loss occurrence is the impact it has upon the approach adopted to address it and the expected longevity of the results of an intervention. Malicious losses typically happen when existing systems have been found to be vulnerable – sometimes by accident, often by 'probing' – and are duly 'defeated' by the offender. For example, the use of closed circuit television has been found to have only a short term impact – thieves are initially deterred by the new intervention but as familiarity grows and the systems are 'tested' and defeated, any long term impact on levels of loss become limited (Beck and Willis, 1999). As such, remedial action to deal with some types of malicious activity will have a 'half-life' where their effectiveness deteriorates over time as offenders find new ways to overcome them (Clarke, 1980; Ekblom, 1997; Decker, 2003). Remedial actions can also lead to displacement where offenders target different products, locations, times or methods although this can be difficult to evidence in a retail context. (Clarke, 1997; Felson and Clarke, 1997).

Unintentional or non-malicious loss 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 this intervention may require similar levels of vigilance (for instance to make sure staff are continuing to follow procedures) it is more likely to have a lasting effect than interventions where a malicious actor is constantly probing for weakness and opportunity. It is therefore considered useful to categorize known losses into malicious and non malicious (Beck and Peacock, 2009).

Discussion

It is clear that the proposed Total Retail Loss Typology is a radical departure from how most retail companies have understood and defined the problems of loss within their companies – moving away from a definition focused primarily on unknown stock loss, mainly in physical retail stores, to one which encompasses a broader range of risks across a wider spectrum of locations. While there is a simple elegance about the approach adopted in the past, based upon the traditional four buckets of loss (internal theft, external theft, administrative errors and vendor frauds), it is increasingly recognized that these rather broad brush and often ambiguously defined categories are no longer capable of accurately capturing the increasingly complex risk picture now found in modern retailing. In addition, the growing availability of more data points across retail businesses is now enabling loss prevention practitioners to have greater insights into a range of risks that are affecting their companies. Gone are the days when stock inventory discrepancy is the only data game in town.

The growing influence of online retailing and the introduction of more and more sensing technologies within retail stores is further adding to the sources of available information, enabling businesses to better understand customer behaviors and expectations as well as the associated risks and costs (D'Addario, 2011). What these rich veins of retail knowledge are beginning to unearth is that most retail losses are a product of business choices – the scale of many losses are directly related to decisions made about how a retailer wants to operate. For example, introducing customer self-scan checkouts is a choice – it has some clear benefits associated with it, such as lower staffing costs, but it also has some very clear risks associated with it as well, such as increased levels of loss associated with non/mis-scanning of product (Beck and Hopkins, forthcoming). Deciding on the overall value of these retail choices requires high quality data on both sales and all possible **losses** and they must be viewed together rather than in isolation. The interplay between sales and losses needs to be viewed in the round and not as a series of cross functional trade-offs where 'losses' and 'profits' are allocated separately, driving behaviors which are unlikely to benefit the business as a whole. The current research found many examples of this where those with responsibility for 'shrinkage' often found that 'their' number was negatively impacted by the decisions of others, who were able to 'benefit' by in effect off-loading the downside of their business decisions to the general 'shrinkage bucket'.

It is within this context that it is believed that the proposed Total Retail Loss typology can bring value. By identifying as many of the manageably measurable categories of loss across the entire retail business as possible, it will enable greater transparency to be achieved and better avoid the shifting of losses/costs between one category and the next, depending upon who's interest it best serves. As one respondent put it: ‘One of the reasons for having it [Total Retail Loss] is that it would help to stop store managers playing the numbers game – moving losses between different categories depending upon how their performance is measured’ (Resp. 17). By agreeing what should and should not be defined as a loss, it is hoped that the proposed Typology will help to inform decisions that are in the interest of the business as a whole and not just certain key stakeholders.

In addition, the Total Retail Loss Typology could provide current and future loss prevention practitioners with an even greater opportunity to make a significant and lasting contribution to maintaining and improving the overall profitability of their businesses. As levels of what might be described as traditional ‘shrinkage’ begin to reach levels where it increasingly becomes either uneconomic to reduce further, because the required investment is not justifiable based upon the likely return to the business, or positively counter-productive to reduce, because of the negative impact required interventions will have on sales and profits, then it makes sense for loss prevention practitioners to utilize their resources and established skills to better effect on other problems faced by the business. After all, the goal of loss prevention is not necessarily to reduce losses to zero – this could easily be achieved by a series of draconian measures that would likely induce bankruptcy in most retail companies. The goal is to achieve a level of loss that, based upon the operational choices made by the business, optimizes the profitability of the organization (within an agreed business ethics framework (Beck and Hopkins, forthcoming).

Dealing with unknown loss, which is what most loss prevention practitioners typically focus upon (given they have responsibility for shrinkage), is probably one of the hardest challenges faced by a management team in retailing, requiring them to develop a high level of analytical and problem solving capability. Trying to solve problems where the cause is typically unknown is at the hard end of the management spectrum – it requires creative thinking, imaginative use of data and considerable experience. Imagine if these capabilities were put to use on the broader range of *known* problems encapsulated in the Total Retail Loss Typology – the impact could be profound. This is not to say that a loss prevention team should not continue to ensure that unknown losses remain at an ‘acceptable’ level for their business, and try and convert as much of them as possible to known losses, but the Typology could provide them with an opportunity to not only become the ‘agents of change’ for the better management of loss throughout the business, but also take on new challenges that utilize their considerable established skill set. As one respondent to this research said: ‘I don’t own “damage”, I could really make a difference [to it] – it would be a walk in the park compared with dealing with ORC!’ (Resp. 80).

In effect, the loss prevention team of the future could become the drivers of Total Retail Loss, marshalling data on losses across the business, coaching and encouraging other retail functions to better manage the problem, and using their problem solving skills to help the business sell more through managing losses more effectively. It would enable the loss prevention team to reimagine their role within the business, providing them with an opportunity to remain a relevant, agile and highly valued function in a rapidly changing retail landscape. As one author recently described it: ‘as retail changes, loss prevention need to move to where the work is’ (Peacock, 2016) – arguably the proposed Total Retail Loss Typology provides a theoretical framework for this to happen.

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Endnotes

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[i] Throughout this article the terms ‘known’ and ‘unknown’ loss will be used to describe the difference between losses where the retailer has a good understanding of the causes of the loss (known), and where losses have been identified, but the cause is not known with any degree of confidence (unknown).

[ii] The author would like to thank the Retail Leaders Industry Association and the ECR Community Shrinkage and On-shelf Availability Group for their support.

[iii] While this approach holds true for distinguishing between most forms of losses and costs that retailers experience, it is recognised that there is a grey area surrounding situations where a food retailer may purposively overstock some fresh produce in order to create a particular shopping ambiance. In this respect, the resulting spoilage, which would typically be regarded as a loss, could be seen as a cost because the activity is perceived to be, albeit indirectly, helping generate retail income. In this respect, it may be necessary for a proportion of spoilage losses to be viewed as a ‘margin eroder’ cost rather than a loss.