



RETAIL CRIME: INTERNATIONAL EVIDENCE & PREVENTION

School of Architecture & the Built Environment, KTH

Date: 15th September 2015, **Time:** 9:00-18:00

Venue: Drottning Kristinas väg 30, Room L1, Kungliga Tekniska Högskolan, Stockholm, Sweden

ABSTRACTS

RETAIL CRIME: NATURE & TRENDS



9:15 - *International trends in retail crime & prevention practices*, Joshua Bamfield, Centre for Retail Research, UK

The aims of loss prevention, however articulated, are to protect the assets of the company, protect staff and customers, and to preserve the company's reputation. Protecting assets and reputation requires the company and loss prevention manager to perform a variety of roles including risk management, audit, compliance and interact with a range of criminal justice and police organizations. Defining goals including 'shrinkage' (loss) is naturally essential, but measurement can be inaccurate and unreliable. Recent trends in loss prevention have involved loss prevention taking on risk, audit, compliance, safety and standards roles, ensuring the business is resilient if subject to terrorist or crime attacks, and greater involvement with the police and criminal justice system to ensure that low-level crime and major organised crime issues are handled appropriately.

9:45 - *Characteristics of frequently-shopped consumer products*, Brian Smith, New Heaven University & Ron Clarke, Rutgers University, USA.



This study examines shoplifting rates of everyday products known as fast-moving consumer goods (FMCGs). Using descriptive product data, the objective is to identify the variables that are

significantly related to higher theft rates in products. The vast majority of research on shop theft uses "shrinkage" as a proxy measure for theft. However, this measure combines all retail losses, including theft, into one figure. While the utility of shrinkage might suit the purposes of retailers, there are validity threats when estimating the nature and extent of shoplifting broadly, as well as for individual products. This study, however, utilizes data that provides a more valid measure of product theft rates. A Fortune-500 retail supermarket chain, based in the U.S.A., provided access to a specialized data-set in which extraordinary steps are taken to differentiate shoplifting losses from all other losses (i.e., shrinkage) for a select number of non-perishable products. From this data-set, a cross-sectional sample of products (N=7,468) was drawn. The results have implications for retail loss prevention—for both stores and manufacturing designers of FMCGs. Additionally, the findings may be helpful for other retailers, as these products are also sold in several types of stores (e.g., drug, convenience and mega-stores). Implications for research and policy are also considered.

10:15 - *Consumer-oriented payment systems: mobile technologies, self-service checkout and the rise of the SWIPERS*, Emmeline Taylor, The Australian National University, Australia.



Retailers and suppliers are facing the challenge of reconfiguring systems to accommodate increasingly mobile customers expecting multichannel options supporting quick and secure digital payment. The purpose of this paper is to examine current trends in retail solutions and how they impact on the



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behaviour of both customers and criminals. The focus will be on mobile point-of-sale (MPOS) and self-service checkout. Despite conflicting evidence on their impact on shrinkage, and customer theft in particular, consumer-oriented payment systems are set to be an enduring feature of the retail environment.

SETTINGS OF RETAIL CRIME

11:00 - *Retail crime in Australia: A case study approach exploring thefts in Perth, Western Australia*, Paul Cozens, Curtin University, Australia.



In Australia, the actual extent of retail theft or shoplifting remains largely unknown. However, the Australian Institute of Criminology estimates that there were 1.3 million incidents of shop thefts in 2011 amounting to property losses of around \$91 million dollars (Smith et al., 2014). One of the trends in the research is that there are a number of situational factors which can encourage or facilitate shoplifting (Morgan et al., 2013). This chapter provides an overview of some of the trends in retail crime in Australia. It also presents research findings from in-depth interviews with a sample of retail managers / shop owners in Perth, Western Australia. This research explores their experiences and perceptions of shoplifting and crime prevention through environmental design (CPTED) / situational crime prevention (SCP). The research also tests the relevance of the CRAVED concept (Clarke, 1999) by investigating to what extent shoplifted goods are more concealable, removable, available, valuable, enjoyable and disposable than other goods less frequently targeted by shoplifters.

11:30 - *Crime Prevention through Environmental Design (CPTED) and retail crime: Exploring offender perspectives on risk and protective factors in the design and layout of retail environments*, Chris Joyce, West Yorkshire Police & Rachel Armitage, The University of Huddersfield, UK.



There is little doubt that the design of the built environment influences offender decision-making – be that at the meso (individual street, housing development, shopping mall) or micro (individual property or shop) level (see Armitage, 2013). Crime Prevention through Environmental Design (CPTED) is a crime reduction approach that aims to prevent or reduce crime through the design or manipulation of the built environment. A recent research project (Armitage and Joyce, in press) conducted in-depth interviews with twenty-two incarcerated prolific burglars in West Yorkshire, England. The research revealed that whilst some principles appear to play a vital role in offender decision-making, other principles were not factors considered by offenders. Whilst this research has key implications for the review of CPTED policy and guidance, it is limited to residential housing. This research will replicate the methodology with a sample of incarcerated shoplifters – do the principles of CPTED within the retail environment require revision based upon offender perspectives? Whilst the final chapter will include the findings from interviews with twenty shoplifters, delays in gaining ethical approval have resulted in a shift in focus for this seminar presentation. The focus of the presentation will be upon the research design – the aims, methodology and potential problems, with a short discussion on initial findings from a small number of exploratory interviews.



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THE CONTEXT OF RETAIL CRIME

13:00 *Shopping and Crime: A Micro-geographic Analysis in Tel Aviv-Jaffa*, David Weisburd, George Mason University, USA, Maor Shay & Shai Amram, Hebrew university.



In this study we examine the relationship between crime and commercial locations at street segments in Tel Aviv, Israel between 1980 and 2014. Our sample includes all street segments which had 3 or more households in 1995. The question we ask is whether having stores or malls on streets impacts upon the levels of crime or the trajectories of crime during the observation period. We use three types of data at the street segment level to examine this question. First, we have information on whether crimes occurred at commercial locations (e.g. the percentage of crime on a street that occurred at stores). Second, we have data on land use, which allows us to define the extent of commercial space on each street. Finally, we identify streets that have indoor malls. Our underlying hypothesis based on routine activity theory is that there will be a strong positive correlation between the extent of commercial space on streets and crime. Policy implications of our results are also presented.

13:30 *Visualisation of 3-dimensional hot spots of crime in shopping centers*, Vania Ceccato, Örjan Falk, Pouriya Parsanezhad & Väinno Tairandi, KTH Royal Institute of Technology, Sweden



This presentation reports results of an ongoing study on crime and safety in one of the largest

shopping centers in Stockholm, Sweden. The objective of this particular analysis is to understand the nature of crime in space and time in this shopping centre. In order to achieve this goal, the study makes use of three-dimensional hot spot visualisation using BIM (Building information modelling) to detect multi-temporally areas that run higher risk of crime. The analysis is done in three scales: the macro-scale: the overall system, the shopping centre; the meso-scale: in a group level of stores (a floor); and the micro-scale: the food court, the entrance. Then, the study assesses whether and how crimes against shopping malls are spatially and temporally clustered in three-dimensional space. This prototype is developed using a shopping centre in Stockholm Sweden as case study. The chapter finalizes by discussing the types of shopping environments that are in need of extra attention to improve safety and the potentialities/challenges of using three-dimensional hot spots analysis for environmental analysis of crime risk.

14:00 – *Reducing retailers risk of shop theft: Understanding the importance of neighbourhood context*, James Hunter, Nottingham Trent University, UK



How can retailers and crime reduction agencies better understand the risk of shop theft faced by retail premises within specific neighbourhoods? This presentation draws upon the development of neighbourhood-level shop theft risk profiles by researchers at Nottingham Trent University based upon (a) new approaches to estimating the scale of shop theft based upon the retail characteristics of localities and the underlying causes of spatial



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variations in victimisation levels; (b) interviews with prolific shop theft offenders in terms of motivation, rewards and behaviour; and (c) and the neighbourhood characteristics of offenders. These profiles are being developed in order to inform the strategic decisions of retailers, crime reduction agencies and local economic planners in combating shop theft in urban areas. The presentation will focus upon the importance of retailers/crime reduction agencies understanding neighbourhood context in relation to shop theft risk. The empirical analysis draws upon an evaluation of the neighbourhood locations from which shop theft offenders are over-represented relative to other crime types within two Core Cities in England. The presentation will conclude by examining the extent to which developing a better understanding of neighbourhood context, in conjunction with improving security and store design, can make a practical contribution to reducing shop theft risk.

14:45 – *Stolen medicines and the role of organized crime: how a theft becomes a transnational crime*, Ernesto Savona, TRANSCRIME, Italy



Theft of medicines is emerging as the new frontier of pharmaceutical crime everywhere. In Italy between 2006 and 2013 one hospital out of ten registered thefts of pharmaceuticals, suffering, on average, an economic loss of about 330 thousand EUR in each episode. The geography of thefts confirms the hypotheses that Southern Italy and the eastern Italian regions are more exposed to thefts of medicines because of the greater activity of organized crime groups (both Italian mafia-type and foreign OCGs, especially Eastern-European ones) and their geographical proximity to Eastern Europe

and Greece, which appear to be destinations for stolen medicines. The paper analyses the dynamic of this crime and the role played by organized crime in Italy and outside.

15:15 – *Cargo theft in Brazil: Nature and space-time trends*, Marcelo Justus, Gustavo Moriera, Unicamp, Brazil, Tulio Kahn, Fundação Espaço Democrático, Brazil, Vania Ceccato, KTH, Sweden.



Cargo theft is a major problem throughout the world, and it imposes a high cost to retail and consumers. Some countries have shown a continuously increase, among them, Brazil, which is one of the 4 countries that presents the highest risk to cargo security in the world (Freight Watch, 2014). In Brazil, cargo theft is more than a property crime. Many of these thefts result in deaths, almost always with firearms. There are indications that cargo theft is not distributed homogeneously across the country, being concentrated in the most economically developed regions. We make use of the available data to report the overall nature of cargo theft in the country, and focus the analysis on the specific case of Sao Paulo state, which is one of the most cargo crime targeted states. This is achieved by first presenting evidence of the nature of cargo theft then discussing temporal and spatial trends. Then, by comparing the Brazilian case with those found in the international literature, we suggest a number of potential mechanisms behind cargo theft as an agenda for future research.



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CRIME PREVENTION PRACTICES

15:45 - *Crime and safety issues in a Swedish shopping centre*, Per Sandberg, Citycon, Sweden



Sweden has nowadays about 300 shopping centres, double as much as the country had ten years ago. They are far from being the same. They vary in size, specialization and services. As shopping centres vary, so too do their security operations. In this presentation, I will present the most important security and safety issues found in one of the most visited shopping centres in Sweden, with about 90000 visits per year. I will also give examples of how we deal with these issues in everyday life. Relying on our experience, I will finalise my talk by looking: (1) back and identifying what works and what does not in terms of crime prevention actions and safety measures, and, (2) forward, looking ahead and identifying the most urgent issues that lay ahead in shopping malls in Sweden.

16:15 - *Strategies to prevent crime and retail losses on the retail Supermarket Business in Central America: The WALMART experience*, Mariano Bustamante, Walmart, Mexico



In recent years, organized theft crime and losses originated from employee or supplier fraud and administrative errors on the retail supermarket industry in Central America it's a not only a priority but an opportunity (if losses are under control) to show great revenues on annual reports. Crime and Loss Prevention has become a big focus of attention not only for the biggest players in the

industry but to all participants in the Central American markets in almost any type of product or service offered to the public. Sophistication on the way the frauds and robberies are committed and the significance of losses involved on each event are creating enormous threats to entrepreneurs and well-established corporations. During the presentation I will give a general overview of the Central American Region and then make an understandable business framework for the retail industry and how it operates on a general basis. We will review how the company is conformed in the region and then by area and by country we'll be discussing main concerns, focus of attention and strategies developed in recent years to minimize impact on losses to our P&L originated from very different realities in countries that have been continually challenged by wars, corruption, economy instability, immigration issues and one of the most important threats on recent years: the growing power of street gangs and their ability to affect the retail business no matter its size.

16:45- *Understanding retail crime and crime prevention practices in El Giganten*, Svante Dahlin, El Giganten, Sweden.



I will describe the risks we have with open display and sale of products worth up to 1000€, small enough to put in your pocket. I'll share some information and examples of the combined efforts with technical equipment and staff, the effect of combination of both human and technology. We have during the last 5 five years changed our displays and are working more with open display and livestock with most of the products, during the same period we have decreased our stock loss KPI's with a third. One of the used methods are



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described in our policy of loss prevention and security, as all work with security and loss prevention should be done by all staff in their daily work.



Posters (mingle & lunch, entrance hall)

Poster 1 - Retail Security Officers' Experiences of and Reactions to Workplace Violence, Benjamin Koeppen, University of Leicester, UK.



Both the violent act (e.g. a punch) but also additional factors (e.g. organisational support) shape victims' experience of physical assault. By applying a mixed-method approach, this phenomenological research explores what factors mitigate or exacerbate Retail Security Officers' experience of workplace violence and why. In addition, this study investigates Retail Officers' security responses to violent assaults. The types of response (e.g. weapons or avoidance behaviours) but also the reasons for certain security responses are the subject of investigation. Knowledge in this field might help to improve training provided to security personnel and to lower alarmingly high turnover rates in the security industry.

Poster 2 - Programme "protection against robbery" and the e-learning "safety in shops", Johan Bark, Swedish Trade Federation, Sweden.



In his poster he concentrates on reporting the member companies of the Swedish Trade Federation on safety and security issues. More specifically, he is going to present the programme "protection against robbery" and the e-learning "safety in shops".

Poster 3 - Perceived safety in shopping centres: A Swedish case study, Vania Ceccato & Sanda Tcacencu, Department of Urban Planning and Environment, School of Architecture and the Built Environment (ABE), KTH, Sweden.



The objective of this poster is to report preliminary results of a research project that assess safety levels and geography as perceived by shopping visitors in a shopping centre located in a high crime area in the capital of Sweden, Stockholm. The study is based on three data sources: declared perceived safety from a survey using Goggle forms, crime and public disorder records from a security company and official police statistics. Geographic Information Systems (GIS) and statistical analysis underlie the methodology of this study. Maps of crime and disorder within the shopping centre are compared with maps of the perceived hot spots of fear. The analysis focuses on the importance of the shopping's environmental design and features in impacting on visitors safety. Taking shopping visitors' safety concerns into account, improvements to safety conditions of this shopping mall are suggested.