Cargo theft in Brazil: Nature and space-time trends

Marcelo Justus

Institute of Economics, University of Campinas
São Paulo – Brazil

KTH, Stockholm, Sweden
Sep 15, 2016
Co-authors

Tulio Kahn
Co-authors

Tulio Kahn

Vania Ceccato
Co-authors

Tulio Kahn

Vania Ceccato

Gustavo Moreira
“Cargo theft is a subtraction of goods for resale when they are being transported”
(Brazilian penal code, 2015)
Motivation

Figure: Global heat map for theft cargo risk
Source: 2013 Global Cargo Theft Threat Assessment
1. Cargo theft is a **big problem** throughout the world.
2. Many countries have shown a continuously increase over time in cargo theft.
3. Brazil presents the highest risk to cargo security in the world.
Previous studies

Despite the gravity, little is reported about cargo theft in international literature.
The main objective is to analyze the **nature** of cargo theft, and the recent **space-time trends** in São Paulo state.
Framing the case study

Why the state of São Paulo?
Framing the case study

1. Cross-section data and long time series are not available for carrying out a nation-wide study.
2. There are monthly and quarterly time series for state of São Paulo from 2006 to 2016.
Framing the case study

3. São Paulo is one of the most cargo targeted states of the country.
Framing the case study

Figure: Brazilian states heat map for theft cargo risk
Source: 2013 Global Cargo Theft Threat Assessment
São Paulo is the namesake of a:

- State (645 cities).
- Metropolitan area (The Greater São Paulo – 39 cites including the state capital).
- City (the state capital).
São Paulo is the namesake of a:

- State (645 cities).
Framing the case study

São Paulo is the namesake of a:

- State (645 cities).
- Metropolitan area (The Greater São Paulo – 39 cites including the state capital).
São Paulo is the namesake of a:

- State (645 cities).
- Metropolitan area (The Greater São Paulo – 39 cites including the state capital).
- City (the state capital).
The study area

**Figure:** State of São Paulo (pink), The Greater São Paulo (red) and São Paulo city (green)
The study area

Figure: São Paulo road map
The study area

Figure: Dom Pedro I highway, Campinas, SP-Brazil
The nature of cargo theft

![Histogram of cargo theft hours]

![Histogram of cargo theft weekdays]

**Figure:** % of cargo theft in the state of SP, 2006-2011
Source: Prepared by authors from FETCESP data

1. 6 a.m. – 6 p.m. ≈ 75%
The nature of cargo theft

Figure: % of cargo theft in the state of SP, 2006-2011
Source: Prepared by authors from FETCESP data

1. 6 a.m. – 6 p.m. ≈ 75%
2. Tuesday – Thursday ≈ 60%
The nature of cargo theft

Targets: “hot products” (high-technology goods with a high black market value)
“Hot products”
“Hot products”
“Hot products”
“Hot products”
The nature of cargo theft

About 70% of cargo theft results in express kidnapping of the driver.
The nature of cargo theft

Cargo theft are mostly characterized by frequent use of *guns*.
The nature of cargo theft

Cargo theft are mostly characterized by frequent use of severe violence.
The geography of cargo theft

17,852 thefts cargo occurred only in 2015.
17,852 thefts cargo occurred only in 2015. The top three states were:
The geography of cargo theft

17,852 thefts cargo occurred only in 2015. The top three states were:

1. São Paulo = 47.5%.
17,852 thefts cargo occurred only in 2015. The top three states were:

1. São Paulo = 47.5%.
2. Rio de Janeiro = 40.5%.
The geography of cargo theft

17,852 thefts cargo occurred only in 2015. The top three states were:

1. São Paulo = 47.5%.
2. Rio de Janeiro = 40.5%.
3. Minas Gerais = 3.4%.
About 91% of cargo thefts occurred in southeast.
Question

Why is there a cluster in cargo theft around the southeast region?
Why is there a cluster in cargo theft around the southeast region? Why the SP, Rio and Minas Gerais are the top three states?
Potential causes

1. Southeast is the richest Brazilian region.
Potential causes

1. Southeast is the richest Brazilian region.
2. The three states are places where the greatest cargo on Brazilian highways circulates.
Evidence

Figure: % of cargo theft in São Paulo, 2013-2015
Source: Prepared using SINESP data

1. São Paulo city = 59%
Evidence

Figure: % of cargo theft in São Paulo, 2013-2015
Source: Prepared used SINESP data

1. São Paulo city  = 59%
2. GSP (including SP city)  = 77.4%
Evidence

There is a *cluster of cargo theft* around the São Paulo city.
Temporal trends in cargo theft

Figure: Number of cargo theft reported in state of São Paulo from 2006-Jan to 2015-Dec
Source: Prepared by authors using data from FETCESP and SSP-SP
Evidence

1. There is a **seasonal component** in time series of cargo theft (Mar-May and Oct-Dec).
2. Cargo theft falls during the months after Christmas, reflecting the lower demand for goods (Post-Christmas hypothesis).
Evidence

3. There are outliers and structural change between 2006 and 2016.
Temporal trends in cargo theft

Figure: Index of cargo theft reported in the state of São Paulo from 2005Q1 to 2016Q2 (2005Q1 = 100)
Source: Prepared by authors from SSP-SP data
Temporal trends in cargo theft

![Graph](image)

**Figure:** Logarithm of number of cargo theft reported in the state of São Paulo from 2005Q1 to 2016Q2

*Source:* Prepared by authors from SSP-SP data
A convergence in the number of cargo theft between metropolitan and non-metropolitan areas in the last years.
What is the cause/causes of this fact?
What is the cause/causes of this fact? In others words, why was the growth rate of cargo theft higher in the non-metropolitan areas?
A first step

**Figure:** Departments of Judicial Police of São Paulo of the non-metropolitan areas (DEINTER)
Source: Prepared by authors from SSP-SP data
A first step

Figure: Number of cargo theft reported in nine police divisions composed of 606 non-metropolitan municipalities from 2006Q3 to 2016Q2
Source: Prepared by authors from SSP-SP data
Potential causes of the convergence

The **economic theory** proposed by Gary Becker (1968) can help in providing an answer.
Potential causes of the convergence

The choice of location to commit crime depends on two factors:

1. Monetary return from crime;
2. Risk of failure.
The choice of location to commit crime depends on two factors:

1. Monetary return from crime;
Potential causes of the convergence

The choice of location to commit crime depends on two factors:

1. Monetary return from crime; and
2. risk of failure.
Potential causes of the convergence

Assuming **perfect mobility** between metropolitan and non-metropolitan areas, we alleged hypotheses:
H1. **Less risk** – The risk of failure of theft operations in the GSP increased more than in others areas.
H2. More opportunities – A higher cargo circulation on the state’s highway.
H3. More opportunities and less risk in non-metropolitan areas.
Further studies are essential particularly to **empirically test** our hypotheses alleged when more detailed data are available.
Thank for watching
Thank for watching

mjustus@unicamp.br
marcejustus@gmail.br
Strategies to Prevent Crime and Retail Loss

Walmart Central America

September 2016
Table of Contents

- CAM Overview
- Crime and Shrink
- Developing and AP Framework
- Region Update
- Key Concepts
CENTRAL AMERICA
A quick overview to our region
Video
Central America

5 Countries, 5 realities
Quick facts about the region

42M inhabitants

US$ 4.6K GDP per capita*

44% low-income population**

Guatemala
16.3 M US$4.0K 59%

Honduras
8.4 M US$2.2K 64%

El Salvador
6.4 M US$4.0K 37%

Nicaragua
6.3 M US$1.9K 39%

Costa Rica
4.8 M US$11.0K 22%

*Source: Central Banks; ECLAC
** 2014 ECLAC, United Nations

Market Figures

Inflation* 2.0 %

FDI** US$ 6 B

*Source: Central Banks; ECLAC
Challenging context

• 2017-2020
  • A new President every year
  • Short election cycles
  • Fragmented political landscape

• Exposed Region
  • Weak criminal justice institutions
  • Remarkable inequality
  • Water management
  • Natural Disasters
  • Corruption and Governance

• Security & the cost of doing business
  • Drug Bridge
  • Gangs extortion, drug trafficking, smuggling,
Walmart Central America Snapshot

- Sales: US$ 5B
- Formats: 4
- Banners: 8
- # Stores: 709
- Agribusiness facilities: 15
- Associates: 32,000
### Economic Segmentation

<table>
<thead>
<tr>
<th>Segment</th>
<th>Population</th>
<th># Stores</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>42.2 Million</td>
<td>96</td>
</tr>
<tr>
<td>B</td>
<td>30%</td>
<td>25</td>
</tr>
<tr>
<td>C</td>
<td>12%</td>
<td>107</td>
</tr>
<tr>
<td>D</td>
<td>8%</td>
<td>482</td>
</tr>
</tbody>
</table>

**Total # Stores: 710**
Walmart Central America Snapshot
CRIME & TOTAL LOSS FIGURES

A brief market comparison
Serving the most murderous cities
5 top problems: criminality and economy

<table>
<thead>
<tr>
<th>País</th>
<th>Año</th>
<th>Problema 1</th>
<th>Problema 2</th>
<th>Problema 3</th>
<th>Problema 4</th>
<th>Problema 5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Costa Rica</td>
<td>2006</td>
<td>Criminalidad</td>
<td>Economía</td>
<td>Pobreza</td>
<td>Desempleo</td>
<td>Corrupción</td>
</tr>
<tr>
<td></td>
<td>2008</td>
<td>Criminalidad</td>
<td>Economía</td>
<td>Drogadicación</td>
<td>Corrupción</td>
<td>Desempleo</td>
</tr>
<tr>
<td></td>
<td>2010</td>
<td>Criminalidad</td>
<td>Economía</td>
<td>Desempleo</td>
<td>Corrupción</td>
<td>Pobreza</td>
</tr>
<tr>
<td></td>
<td>2012</td>
<td>Criminalidad</td>
<td>Corrupción</td>
<td>Economía</td>
<td>Desempleo</td>
<td>Drogadicación</td>
</tr>
<tr>
<td>El Salvador</td>
<td>2004</td>
<td>Criminalidad</td>
<td>Desempleo</td>
<td>Pobreza</td>
<td>Economía</td>
<td>Parcialidades</td>
</tr>
<tr>
<td></td>
<td>2006</td>
<td>Criminalidad</td>
<td>Economía</td>
<td>Pobreza</td>
<td>Desempleo</td>
<td>Parcialidades</td>
</tr>
<tr>
<td></td>
<td>2008</td>
<td>Economía</td>
<td>Criminalidad</td>
<td>Pobreza</td>
<td>Desempleo</td>
<td>Inflación</td>
</tr>
<tr>
<td></td>
<td>2010</td>
<td>Criminalidad</td>
<td>Economía</td>
<td>Desempleo</td>
<td>Pobreza</td>
<td>Violencia</td>
</tr>
<tr>
<td></td>
<td>2012</td>
<td>Criminalidad</td>
<td>Economía</td>
<td>Desempleo</td>
<td>Pobreza</td>
<td>Violencia</td>
</tr>
<tr>
<td>Guatemala</td>
<td>2004</td>
<td>Criminalidad</td>
<td>Economía</td>
<td>Pobreza</td>
<td>Desempleo</td>
<td>Inflación</td>
</tr>
<tr>
<td></td>
<td>2006</td>
<td>Criminalidad</td>
<td>Pobreza</td>
<td>Desempleo</td>
<td>Economía</td>
<td>Violencia</td>
</tr>
<tr>
<td></td>
<td>2008</td>
<td>Criminalidad</td>
<td>Violencia</td>
<td>Pobreza</td>
<td>Economía</td>
<td>Desempleo</td>
</tr>
<tr>
<td></td>
<td>2010</td>
<td>Criminalidad</td>
<td>Economía</td>
<td>Pobreza</td>
<td>Desempleo</td>
<td></td>
</tr>
<tr>
<td></td>
<td>2012</td>
<td>Criminalidad</td>
<td>Economía</td>
<td>Desempleo</td>
<td>Pobreza</td>
<td>Violencia</td>
</tr>
<tr>
<td>Honduras</td>
<td>2004</td>
<td>Pobreza</td>
<td>Economía</td>
<td>Criminalidad</td>
<td>Inflación</td>
<td>Desempleo</td>
</tr>
<tr>
<td></td>
<td>2006</td>
<td>Criminalidad</td>
<td>Pobreza</td>
<td>Economía</td>
<td>Desempleo</td>
<td>Corrupción</td>
</tr>
<tr>
<td></td>
<td>2008</td>
<td>Criminalidad</td>
<td>Corrupción</td>
<td>Economía</td>
<td>Pobreza</td>
<td>Desempleo</td>
</tr>
<tr>
<td></td>
<td>2010</td>
<td>Criminalidad</td>
<td>Desempleo</td>
<td>Corrupción</td>
<td>Economía</td>
<td>Pobreza</td>
</tr>
<tr>
<td></td>
<td>2012</td>
<td>Corrupción</td>
<td>Criminalidad</td>
<td>Pobreza</td>
<td>Desempleo</td>
<td>Vías en mal estado</td>
</tr>
<tr>
<td>Nicaragua</td>
<td>2004</td>
<td>Desempleo</td>
<td>Economía</td>
<td>Pobreza</td>
<td>Corrupción</td>
<td>Mal gobierno</td>
</tr>
<tr>
<td></td>
<td>2006</td>
<td>Desempleo</td>
<td>Pobreza</td>
<td>Economía</td>
<td>Corrupción</td>
<td>Los políticos</td>
</tr>
<tr>
<td></td>
<td>2008</td>
<td>Economía</td>
<td>Desempleo</td>
<td>Pobreza</td>
<td>Inflación</td>
<td>Los políticos</td>
</tr>
<tr>
<td></td>
<td>2010</td>
<td>Economía</td>
<td>Desempleo</td>
<td>Inflación</td>
<td>Los políticos</td>
<td></td>
</tr>
<tr>
<td></td>
<td>2012</td>
<td>Economía</td>
<td>Desempleo</td>
<td>Criminalidad</td>
<td>Pobreza</td>
<td>Inflación</td>
</tr>
<tr>
<td>Panamá</td>
<td>2004</td>
<td>Desempleo</td>
<td>Corrupción</td>
<td>Criminalidad</td>
<td>Economía</td>
<td>Pobreza</td>
</tr>
<tr>
<td></td>
<td>2006</td>
<td>Desempleo</td>
<td>Criminalidad</td>
<td>Corrupción</td>
<td>Economía</td>
<td>Falta de agua</td>
</tr>
<tr>
<td></td>
<td>2008</td>
<td>Criminalidad</td>
<td>Economía</td>
<td>Desempleo</td>
<td>Inflación</td>
<td>Corrupción</td>
</tr>
<tr>
<td></td>
<td>2010</td>
<td>Criminalidad</td>
<td>Economía</td>
<td>Desempleo</td>
<td>Inflación</td>
<td></td>
</tr>
<tr>
<td></td>
<td>2012</td>
<td>Criminalidad</td>
<td>Inflación</td>
<td>Corrupción</td>
<td>Falta de agua</td>
<td>Economía</td>
</tr>
</tbody>
</table>

Fuente: elaboración propia con datos del Barómetro de las Américas del Latin American Public Opinion Project (LAPOP).
• 54 bps Reduction over 5 years
• High Risk Countries with Excellent results
Not only Shrink, Total Loss Approach

**Damages**
10 bps improvement over 3 year

**Throw away**
32 bps improvement over 6 years

**Cash Losses**
New
DEFINING A NEW FRAMEWORK

From event driven to process driven
From an External Theft Driven Organization...
...To an AP Process Oriented Organization

- Motivated Associates
- Manage their results
- Integrated to day to day ops
- Sustainable Results
The short term vs long term

Sales and Shrink

Maintain Course

Early Wins

C-suit Language

Change is necessary

Communicate honestly
Our set of Priorities

01  Our Associates and Clients
02  Our Inventory and Cash
03  Our Reputation and Information
04  Our Infrastructure
A shared vision throughout the company

- Develop a Culture of Prevention
- Total Loss Program
- Holistic AP Approach
- Innovation
- Processes & Technology
- Clear and Effective Accountability
The Chameleon Effect (In/Visibility)

**Invisible to...**
- Honest Clients
- Day to day Ops
- Suppliers
- Sales Figures
- Merchants

**Visible to...**
- Associates at Stores
- P&L, Margin
- C-Suit
- ORC
- Police
- Community Orgs
- Common Thieves
Increase Scope at the base

- PI Accuracy
- Logistics and Vertical Integration
- Paper Shrink
- Internal Processes

Apprehensions Driven Organization

- External Theft
- Percentage
Increase Scope at the base

- **PI Accuracy**: 10%
  - PI Accuracy, Inventory processes
  - Forecast Enabled

- **Logistics and Vertical Integration**: 10%
  - Risk at the origin
  - Damaged at transportation

- **Paper Shrink**: 20%
  - Price Changes, Reverse logistics, supplier related issues

- **Internal Processes**: 25%
  - Back of the store, front end, treasury, cash shorts, claims, returns

- **External Theft**: 35%
  - Apprehensions Driven Organization

**Human Safety**
**Food Safety**
**Security**
**Actionable**
Analytics is nothing without simplicity

- Forecast Shrink
- Monitor Damages
- Merchant tools
- Operational Audit
- Cash Losses
Our Discount Format (68% of our Stores)
Our Bodega Format
Innovating for low cost format

Low cost CCTV
Can it be voice enabled?
Can it been seen from just 1 country?
Can it reduce security personnel needs?

Security Personnel third party
Can it be shared with other companies?
Can it be Mobile?
Replace lack of law enforcement?
No image related issues?

Signal Integration
Intrusion, Robbery,
Cash Management, Cash Alerts,
Fire alarms, Equipment alarms
Emergency calls, GPS, IP Radio
Fraud Alerts Front End

Monetize the use of technology
How make it attractive to suppliers?
Can it deliver customer analytics?

Lay out design & Operational Efficiencies
Sites risk rates, Prototype development
ROI understanding
Routines and processes

Reaction response
How to eliminate threats to reaction personnel?
Change fear for protection at the stores
Fast Reaction on heavy transit
Decrease critical eventos

Create a Sense of a Controlled Environment
At a reasonable cost/investment
Not only focus on the stores

**Vendors**
In some cases PYMES
Agribusiness Entrepreneurs

**Distribution Centers and Production Plants**
AP Function enabled

**Stores**
Last phase

- **01** Transportation from vendors
  Not seen true risk
- **02**
- **03** Transportation to Stores
  Managed fleet and transportation risk related issues
- **04**
- **05**
Main ideas | Central America Experience

- A high risk environment it is not a lost battle
- Don’t wait for results, get ahead and build them
- Do not sacrifice processes for events
- A Continued Good Strategy is better than a perfect one
Kista Galleria
Facts about Kista Galleria

- The leasable area is about 89,400 sqm of which about 56,700 sqm is the shopping centre, about 9,200 sqm of office space, about 4,600 sqm warehouse, about 10,000 sqm student apartments, 8,100 m² hotel and approximately 800 sqm other areas. Including parking garage covers the managed property total about 133,000 sqm.
Kista Galleria, a shopping center or a small city?

About Kista Galleria

- In Kista Galleria you'll find a little bit more of everything.
- Over 180 stores and restaurants, movie theatres, coffee shops, and O´learys Bowling & Go-cart. In addition to this there is an extensive range of services by post office, children healthcare, health center, dentist, and much more in the Mall.
- You will also find Sweden's longest opening hours from 10 am-21, seven days a week, 359 days with over 19 million visitors last year.

So again, is large shopping centers “just” shopping centers today or is it more like a small city?
“Fore Checking”
Efforts to combat serious and organized crime in Kista Galleria
The problem has many faces

• Where serious organized crime is buying businesses in the mall will quickly become known by all.

• Other forms of serious crime such as blackmail, threats, drugs etc comes together with that.

• Increased risk for customers and visitors.

• Decreased value for the owners.
The warning to the owner?
“Fore Checking” - Goal

- To prevent organized crime taking root in the property.
- Must be known to all that the Mall does not accept criminal activity.
Create security for all stakeholders

- Customers/visitors
- Tenants
- Employees
- Authorities
- Owners

Defend and increase the value for property owners and tenants
Security Reports 2013-2016

Notified crimes within the category of "violent crime": assault, robbery (shop + person), threats, violence against security or police.

<table>
<thead>
<tr>
<th>Centre</th>
<th>2013</th>
<th>2014</th>
<th>2015</th>
<th>2016 (until today)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kista Galleria</td>
<td>21</td>
<td>42</td>
<td>36</td>
<td>23</td>
</tr>
<tr>
<td></td>
<td>9</td>
<td>14</td>
<td>38</td>
<td>11</td>
</tr>
<tr>
<td></td>
<td>24</td>
<td>33</td>
<td>22</td>
<td>13</td>
</tr>
<tr>
<td></td>
<td>8</td>
<td>8</td>
<td>15</td>
<td>11</td>
</tr>
<tr>
<td></td>
<td>42</td>
<td>36</td>
<td>35</td>
<td>26</td>
</tr>
</tbody>
</table>
New Security Problems 2015-2016

- Cars that driving in to stores in our shopping centers.
- Motorcycles that drive in to our shopping centers for smash and grabs.
- In 90% of this cases the robbers is armed with fire arms.
How to solve the problems with cars?
How to solve the problem with smash and grabs?
What we do today in Security

<table>
<thead>
<tr>
<th>Preparations</th>
<th>Training</th>
<th>System</th>
<th>Recovery</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Crisis plan</td>
<td>• Crisis training</td>
<td>• Control room</td>
<td>• Prepared DRP (Disaster</td>
</tr>
<tr>
<td>• Crisis bags</td>
<td>• Media training</td>
<td>• CCTV</td>
<td>recovery plan)</td>
</tr>
<tr>
<td>• Background screenings</td>
<td>• Police cooperation</td>
<td>• Alarm systems</td>
<td>• Insurance</td>
</tr>
<tr>
<td></td>
<td>• International cooperation</td>
<td></td>
<td>• In-house resources</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• External Crisis Management</td>
</tr>
</tbody>
</table>

CITYCON
## Next step

<table>
<thead>
<tr>
<th><strong>Early Warning System</strong></th>
<th><strong>Mobile Alert System</strong></th>
<th><strong>First Responder Team</strong></th>
</tr>
</thead>
</table>
| • 24/7 Monitoring of disasters, social disorder and violence | • Better Intelligence  
• Tenants and visitor takes an active part in security.  
• Authorities can take part of the information in real time. | • Dedicated resource from Security company  
• Handpicked members  
• First responder training  
• Awarness  
• Medical  
• Mental  
• Fire  
• Operative management |
Citycon Security Concept 2017-2018

Privet Sector

Awareness

Risks

Global Thinking

Unusual Behavior

Smart System
Creating Safety Together
Elgiganten AB – Knowledge of retail crime

KTH 15 September 2016
Security & Loss prevention

- Business presentation
- Development of sales and losses
- Knowledge of loss
- Knowledge of criminal activity
- Success factors
• Elgiganen is a part of the Elkjop group with ~500 stores over the Nordics sales just over 30 B SEK

• We are owned since 1999 by Dixons Carphone plc listed on the main market of the London Stock Exchange, in total 2 200 stores over Europe.

Not presenting:
62 Miljon visitors in total, retail, e-commerce and call centre
18 Megastores of more than 3000 sqm 9-10 000 facings
29 Superstores of 1500-3000 SQM 6-9 000 facings
33 Franchisestores of 500-1500 SQM 2-6 000 facings
79 Phonehouse Small stores for telecom Up to 1 000 facings
• Sales developed double up in last 10 years, this have happened thanks to a development of the concept with a massive increase of the high value products on display

• Value of the losses from crime and unknown losses during these 10 years have been stable around X MSEK, variations up and down because of burglaries.

• The most distinguishing is that our unknown losses have had a stable decreased, and are now half of 2006, just because of our efforts to get knowledge of our losses

• COS% level have had a steady decrease over these years
Knowledge of Loss data
1. Ten years there where a bunch of losses, but almost everything was unknown and it was counted once or twice a year. Take control of the losses, start divide it into type of loss, categories of products, detect the items and also differences of the stores.

2. Frequent inventory of hot products and only according to the accountancy for most of the products, cold ones

3. We are using this result and having result of losses of categories, product groups down to item level and analyze and adjusting our work, changing the inventory plans and protection actions ongoing during the year

4. Country losses are not always the same as the local stores. All major stores are analyzing the loss values of different products and also mapping the stores to understand where they have the hot products and hot spots of the stores
1. New hot products

- One common thing around all of our hottest product is the most vulnerable, normally price is a common side of these products, but for example headphones, Apples cheap original headphones are one of the most stolen items in our stores. Of course also the exclusive ones from Bose, Beats etc are stolne, but they are protected.
- Extreme range of new small and expensive bluetooth speakers giving us new challenges, we normally protect all items over 2000SEK but it has to expand thos to small units with a known brand.
- We are trying to predict the risks for losses of new products, it is following the trends in the market, i have an example we didn't predict during this summer, the extreme increase of losses of Powerbanks during the Pokemon Go launch. Extreme needs of power during the peak of the game, gave us a massive sale and losses for a few weeks.

2. Normal hot products

- Smartphones, a pocket size product for 10 000SEK, needs to be protected both day and night. Also protected for internal thefts, restricted areas
- Laptops are popular by traveling thieves, and in store burglary
- Tablets are popular, mostly Ipad from burglary in warehouse and store
- Harddrives and memory sticks are mostly local thieves selling to locals, we
found them in the local markets and on swedish E-bay Blocket.
Randomized protection routines are not accurate when you have our range and volume of products we have calculated all our hot products and detected those who need protection

1. Total Revenue, Grossmargin and Number of units, loss value of each product group
   - Cost of staff handling on and off security equipment
   - Cost of the security equipment (tags and safes/spiders)
   - By the end we divide all groups into different price levels and make a calculation for each group and price level and take a decision of the need and benefit of protection

2. We see a lot of different effects, when we protect more expansive, but not the cheap, thefts of the cheap ones often increase immediately, therefore the calculation is being done regularly during the year and product protection matrix updated.
Knowledge of incidents

• As we collect information from the losses of products, we also need to identify the way of working by the criminals
• We are collecting all information around incidents leads to a policereport. If you have an internal incident system you can get it more validated.

• To get a picture of all different stores, we need to have incidents registered and statistics available. If needed we have the police reports available at the sharepoint servers.
Increase:
- Burglaries yearly variably, we have had an extreme year, with XX burglaries and attempts, I will give you some details
- Attempts of fraud have increased during the last 4-5 years, but we have solid routines both at e-commerce and the stores
- Threat of violence after a failed theft has increased three times last couple of years

Decrease
- Theft in transport, I will give you some more information of our efforts to reduce these
- Theft in store have a stable development and I will give you a short update on our problems
- Frauds completed is decreased during the last couple of years
We have had a lot of burglaries, suffering from 5-6 different criminals gangs local and travelling thieves.

Local gangs operating in Stockholm, Gothenburg using vehicles such as pickups, forklifts, caterpillars and regular cars.

We had a Romanian gang from roof climbing down stealing display from telecom and computing.

Main target in all burglaries, are products of a specific brand, Apple, iPhones, iPads and Macbooks are stolen.
Incidents:

• We have almost no or very few teenagers and unprofessional thieves anymore, but are suffering from a lot of semi and professional thieves traveling around stealing products in all of our stores in the Nordics.

• Using the method in one store, they can probably succeed with the same in next store traveling along the high ways around the country. Sometimes they have address lists in car, when arriving to Sweden.

• Swedish regulation of CCTV and personal data giving us problems to share information between the stores

Prevention:

• How we built the stores is not easy to affect, but our work with the product protection matrix gives us a strong advantage

• Apple products need to be protected, lot of them into secured cabinets
• 2008-2014 we were using a global firm of all our transports in the nordics, using hauliers with drivers from eastern europé, during these years we have been suffering from a lot of burglaries and lack of products at arrival in store.
• The transports in sweden was made by more local drivers because of cabotage regulation and we had much lower rate of crime to these stores

In 2014 we changed to new contracts
• We have collected and analyze of all these incidents and took a decision to change
• Incidents still happens, but more of individual mistakes and randomized criminals
• 2010-2012 we have increasing number of frauds using false ID, first in store and later in e-com. First we just added controls wit UV lamps

• We collected and detected common characteristic from almost all ID frauds, we started to use the information and created a policy to reach Zero frauds, adjusted control routines, trained all staff selling subscriptions and finance services.

• 90% decrease of the fraud losses in 4 years

• Since we started this process quality of false ID was improved, UV hologram was included, we had to adjust and improve our routines of control
Successfactors
• We have a sales driven organisation, I have early recognized that best way to succeed with loss prevention in store is to take advantage of all connected touchpoints. Activity by all employee in store is effective, especially when they know about Hot products and cold areas.

• React and respond is central for all member of staff

• Loss prevention training are mandatory and given frequently together with sales training

• Most effective regulation is 72 hour rule, no one is allowed to take decision to have wrong stockvalue

• Technical equipment needs to be used by staff, or not worth paying for
• Questions anyone?