# Retail Matrix



# Business Case White Paper

## Creating competitive advantage for the retailer

Thursday, August 26, 2010

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## Business case snapshot

This business case deals with the implementation of Retail Matrix. Retail Matrix makes sales intelligence simple. It extracts sales data from the host within user defined time intervals. This data is delivered to the manager's laptop where the data intelligence is performed.

The case is aimed to assist Retail stores with three strategic challenges of store optimization, resource utilization and shrinkage reduction.

Current impediments to these strategic goals include delivering the right data in a meaningful way to the right people at the right time. Data reporting currently is slow in a fixed format. If managers want to see reporting in different formats specialized reports often have to be requested.

Retail Matrix eliminates these data impediments delivering real sales intelligence as opposed to simple reporting in an interactive capability. Different intelligence views can easily be created on screen by the user.

The immediate benefits include

- > data time to user, updated daily allowing decisions to be meaningful
- > specific data to specific users getting people to focus on what they need to do
- converting data into intelligence allowing for a more strategic approach to current retail activities
- > low cost low resource implementation
- > fast implementation

## **Introduction**

The goal of this business case aligns with the standard requirement of Retailers to provide innovative and value creating solutions to their customer base.

This case is a focused methodology to assist retailers in their quest to optimize the core strategic objectives of **store optimization**, **resource utilization** and **shrinkage reduction**.

The foundation of this business case is driven on flexibility of project scope, implementation speed and targeted goals.

### **Conditions precedent**

The value offer is targeted at Retail stores who have three strategic challenges.

- 1. Store Optimization. To optimize store performance by having the right merchandise at the right time
- 2. Resource Utilization. To empower its front line managers with the tools to ensure that their people resources are put to best use.
- 3. To reduce shrinkage. Through the use of technology, process and policy.

On face value these challenges may be perceived as more operational in nature however they are the key ingredients to the Retail Store competitive landscape.

There are many barriers to these strategic challenges, this business case mainly addresses the "management blind spot" barrier. The proposed solution is to enable the Retail Store manager to move towards evidence based retailing supporting the current "schedule base" retailing.

Common to many retailers, the methodology to replenish, merchandise and mange individual stores are policy or schedule driven. This ensures uniformity and control however it does not easily cater for decision flexibility or opportunity identification.

This is where the blind spot barrier plays a big part. Mangers cannot respond and be proactive if they **don't know** there is a problem or opportunity that requires attention.

The goal of this case study is to provide an easy yet effective way for the Retail Store manager to simplify the thousands of different trading variables into meaningful decision profiles enabling the platform for good decisions or at the minimum leading to value driven recommendations.

The methodology to achieve this is through an innovative management tool called Retail Matrix (see <u>www.salesmatrix-usa.com</u>).

## Key benefits derived from the Retail Matrix application

- Easy to use. limiting disruption due to lengthy training time requirements
- *Flexible deployment.* It can focus on the individual store to a group of stores, a planogram across many stores or a product group across many stores.
- **Extracts sales data only**. No impact to day to day systems with zero data depository risk.
- **Targeted intelligence.** Different people can have different data sets depending on their needs or job responsibility.
- **Interactive.** All intelligence is screen driven, eliminating the need for customized reporting and the delay that comes from waiting for these reports.
- Humanize real answers to real life questions. Retail Matrix is real life question driven "where do I make the most money and with what product" or "what is my busiest time of day"
- **Customizable.** The ability to change behavior by asking specific questions to designated people" This enables forced thinking until behavior changes in the right direction.
- Visual. Making data easy to read

## What is Retail Matrix?

Retail Matrix makes sales intelligence simple. It extracts sales data from the host within user defined time intervals. This data is delivered to the manager's laptop computer where the data intelligence is performed.

The foundation of Retail Matrix is based on three strategic questions



### 1. Where am I making or losing money?

Enabling focus on the money making segments be it volume, margin or unit driven. Conversely, identifying poor performance segments that may require management attention.

2. Where am I growing?

Placing resources on growth sectors

3. What are my opportunities?

Enabling proactive response based on evidence

The secret is in how retail matrix displays its data. The grid or matrix formatted within the

two dimensions of rows and columns. The row information can be product driven and the related column dates can be time of day, day of week, weekend weekday, store by store, or specified category driven.

This allows the user to simply right click to change the view based on the related intelligence he or she requires.

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Categories	Products-Group	🐨 Total	Tryon Plz Shp Ctr	King Plaza	Northway Plaza	Ben Hill Square	Brooklyn Shp Ctr	Meridia Square	Hutchison Sh	Central Ave	Columbia Eas	1317 Broadway	Old Nation	Busch Plaz	Countrysid
6월 (All) 6월 Group 6월 Calegory	GRAND TOTAL	196,716,248	27,746,034	17,127,574	17,059,230	15,690,240	15,389,622	15,205,572	12,941,222	12,710,924	12,682,484	12,520,237	10,409,784	9,410,197	9,2
	OfficeFurnishings	<b>5</b> 0,147,375	6,846,918	3,851,650	4,033,417	4,044,307	4,886,039	3,172,139	3,263,187	3,777,066	3,297,324	3,431,852	2,445,551	2,719,615	2,4
	BeddingBath	37,698,926	5,983,540	4,031,883	4,574,603	2,930,747	2,070,186	3,853,405	2,626,083	1,758,576	1,780,142	1,707,377	2,222,672	1,202,404	1,2
	KitchenDining	17,624,710	2,317,195	1,280,856	1,206,094	1,398,172	1,487,862	1,172,790	1,029,224	1,358,805	1,465,972	1,443,607	790,547	970,551	9
	PerfumesFragrances	13,184,846	1,512,154	1,151,911	1,066,502	1,107,672	1,161,325	989,950	872,477	897,580	845,117	807,858	731,599	778,912	65
	HomeDecor	12,805,585	1,987,381	906,888	1,009,063	977,943	1,028,875	838,535	790,098	938,917	962,036	908,087	594,025	609,953	7.
	OfficeElectronics	12,444,529	1,796,408	1,109,731	904,483	1,141,126	894,140	1,028,993	843,012	722,618	786,320	765,058	758,301	565,898	5
	Housewares	6,224,658	893,585	452,251	502,877	608,760	469,233	510,916	378,828	348,105	424,171	438,581	308,262	279,396	3
	MensWatches	5,072,127	598,359	803,011	462,351	350,853	288,146	447,059	360,169	358,138	229,767	276,443	202,321	280,013	2)
	PensPencilsMarkers	3,015,219	442,668	308,983	214,474	188,744	211,540	258,874	163,464	178,128	212,880	259,727	160,591	147,693	1
	Furniture	2,962,832	379,233	291,358	221,322	210,337	259,994	224,181	160,771	224,681	221,004	177,339	138,939	200,079	15
	GiftBaskets	2,697,957	366,573	163,340	152,299	201,965	252,427	135,792	170,308	189,151	281,095	229,067	73,052	142,454	21
Categories	GeneralOfficeSuppl	2,458,273	320,749	166,017	192,034	189,073	193,675	192,120	148,185	177,035	176,675	167,040	154,523	121,819	1
Outlet	AudioVideo	2,322,358	268,507	168,406	176,036	192,544	145,017	174,492	140,366	185,202	133,467	91,478	278,744	98,826	1
Timeof Sale	BackpacksBags	2,081,903	298,703	210,537	195,678	129,607	157,024	139,595	115,972	108,781	147,741	128,145	135,378	117,219	1

Sales performance diagnostics is enhanced through the traffic light system. This process highlights where outliers exist allowing quick prognosis either related to a required action or the decision to not to.

*Either way the manger with the Retail Matrix tool has the power to make these decisions based on real evidence.* 

### The value offer

The core strategic areas targeted with the Retail Matrix solution include.

### 📓 Store optimization. Achieved through

- Volume optimization
- > Margin Optimization

Driven by

- ✓ Store group comparisons
- Product category performance within a single store and across a group of stores
- ✓ Trend analysis
- ✓ Price point profiling

### I Resource utilization achieved through

- > Volume by time of day
- > Volume by day of week

Driven by

✓ Unit volumes by product group

### Shrinkage reduction achieved through

- > Volume by time of day
- > Volume by day of week

Driven by

✓ Unit volume variation by high risk shrink items

## Application of the value offer

*Each value offer of store optimization, resource utilization and shrinkage reduction is considered within the practical application towards the delivery of the offer* 

### **STORE OPTIMIZATION**

Store optimization in the context of this case study is defined by the ability to increase the individual store profitability as measured in additional revenue dollars, additional margin dollars or the combination of both. The key measures are revenue growth % and store contribution %. Superior store optimization is the achievement of a profitability growth rate greater that the revenue growth rate.

Achieved through

- **Volume optimization**
- I Margin Optimization

Driven by

- ✓ Store group comparisons
- ✓ Product category performance within a single store and across a group of stores
- ✓ Trend analysis
- ✓ Price point profiling

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	s Data Tools Help			ure 1 Se	lected Sto	ore by sto	ore compo	irison vie	wed by	product	group				
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Categories	Products-Group	🔻 Total	Tryon Plz Shp Ctr	King Plaza	Northway Plaza	Ben Hill Square	Brooklyn Shp Ctr	Meridia Square	Hutchison Sh	Central Ave	Columbia Eas	1317 Broadway	Old Nation	Busch Plaz	Countryside F
⊞ 📢 Group ⊞ 📢 Category	GRAND TOTAL	196,716,248	27,746,034	17,127,574	17,059,230	15,690,240	15,389,622	15,205,572	12,941,222	12,710,924	12,682,484	12,520,237	10,409,784	9,410,197	9,275,
	OfficeFurnishings	50,147,375	6,846,918	3,851,650	4,033,417	4,044,307	4,886,039	3,172,139	3,263,187	3,777,066	3,297,324	3,431,852	2,445,551	2,719,615	2,424,
	BeddingBath	<mark>3</mark> 7,698,926	5,983,540	4,031,883	4,574,603	2,930,747	2,070,186	3,853,405	2,626,083	1,758,576	1,780,142	1,707,377	2,222,672	1,202,404	1,202,
	KitchenDining	17,624,710	2,317,195	1,280,856	1,206,094	1,398,172	1,487,862	1,172,790	1,029,224	1,358,805	1,465,972	1,443,607	790,547	970,551	998,
	PerfumesFragrances	13,184,846	1,512,154	1,151,911	1,066,502	1,107,672	1,161,325	989,950	872,477	897,580	845,117	807,858	731,599	778,912	653,
	HomeDecor	12,805,585	1,987,381	906,888	1,009,063	977,943	1,028,875	838,535	790,098	938,917	962,036	908,087	594,025	609,953	729,
	OfficeElectronics	12,444,529	1,796,408	1,109,731	904,483	1,141,126	894,140	1,028,993	843,012	722,618	786,320	765,058	758,301	565,898	554,
	Housewares	6,224,658	893,585	452,251	502,877	608,760	469,233	510,916	378,828	348,105	424,171	438,581	308,262	279,396	313,
	MensWatches	5,072,127	598,359	803,011	462,351	350,853	288,146	447,059	360,169	358,138	229,767	276,443	202,321	280,013	207,
	PensPencilsMarkers	3,015,219	442,668	308,983	214,474	188,744	211,540	258,874	163,464	178,128	212,880	259,727	160,591	147,693	132,
	Furniture	2,962,832	379,233	291,358	221,322	210,337	259,994	224,181	160,771	224,681	221,004	177,339	138,939	200,079	153,
	GiftBaskets	2,697,957	366,573	163,340	152,299	201,965	252,427	135,792	170,308	189,151	281,095	229,067	73,052	142,454	218,
Categories	GeneralOfficeSuppl	2,458,273	320,749	166,017	192,034	189,073	193,675	192,120	148,185	177,035	176,675	167,040	154,523	121,819	155,
Galance Outlet	AudioVideo	2,322,358	268,507	168,406	176,036	192,544	145,017	174,492	140,366	185,202	133,467	91,478	278,744	98,826	105,
Products	BackpacksBags	2,081,903	298,703	210,537	195,678	129,607	157,024	139,595	115,972	108,781	147,741	128,145	135,378	117,219	101,
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Store group data comparisons enable quick benchmarking to assess variation. Stores can be grouped in any defined configuration. This may be

- > Geographic
- > By population ethnic concentrations
- > Rural vs. urban stores
- > Large vs. small
- > New vs. older
- > High rent vs. low rent

Revenue Cost of Revenue	Values Ratios		44	19	442,668	308,983	هً ا	Values	188.744 •	21
Margin Units	Performance	-	25	32	Cost%			Ratios Performan	ce •	25
221,322 210,	Products Second Image	• •	22	57	2.1		5	Products TimeofSale	+ 2 +	25
152,299 201,9	😵 Periods 💥 Quadrant View	) )	13	.73	Margin Perc	entage of Total	-1	Outlet Periods Quadrant V	⊧ /iew	19
192,034 189,	Notes	٠	19	:58	268,507	168,406	1	Notes	•	14
				03	298,703	210,537	195,	678	129,607	15

#### Figure 2 Converting revenue into margin \$ or % is a right click away

Revenue focus strategies can be initiated with the product group by store matrix as shown in figure 1. This screen display is based on revenue dollars but can easily be switched to units with the mouse right click (see figure 2). The user now has the advantage assisted with the traffic light functionality to identify outperformers across all stores. Answering strategic questions including:

- > Which store/s am I achieving best of breed product performance
- > Which stores need specific product attention
- What is the product variance from one period to the next between the selected stores showing abnormal increases or declines
- What is the % contribution to the total revenue by product group by store showing any store with abnormal weightings to any specific product group

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Frage         Solution         Solution <t< th=""><th>ries</th><th>TimeofSale 🔺</th><th>Total</th><th>Countryside Plaza</th><th>1317 Broadway</th><th>Westerly Hills Shp Ctr</th><th>Hutchison Shopping Center</th><th>Tryon Plz Shp Ctr</th><th>Meridia Square</th><th>Columbia East Shp Ctr</th><th>Northway Plaza</th><th>Central Ave</th><th>King Plaza</th><th>Brookly</th></t<>	ries	TimeofSale 🔺	Total	Countryside Plaza	1317 Broadway	Westerly Hills Shp Ctr	Hutchison Shopping Center	Tryon Plz Shp Ctr	Meridia Square	Columbia East Shp Ctr	Northway Plaza	Central Ave	King Plaza	Brookly
IDP PERCEN18 Sunday2 S18,33114,052161,638128,8122006,791310,626213,9771266,471266,451268,47126		18-Saturday	4,114,373	147,747	229,501	153,523	282,041	527,514	372,591	317,317	318,179	248,520	348,405	
ActionActi	fD ay	18-Sunday	2,618,393	114,052	161,638	128,812	206,791	310,626	213,977	156,353	268,459	131,622	211,746	
Incode         Image: Section of the section of t		18-Thursday	2,870,941	124,160	157,378	117,154	227,242	397,777	286,447	164,524	258,763	178,764	239,759	
1 - Friday       2 - Rot       2 - Rot      2 - Rot       2 - Rot		18-Tuesday	2,228,136	108,084	153,452	119,730	151,994	293,720	230,296	131,967	198,545	123,630	173,353	
Index         Index <th< td=""><td></td><td>18-Wednesday</td><td>2,477,115</td><td>99,845</td><td>150,817</td><td>107,991</td><td>173,392</td><td>326,399</td><td>258,214</td><td>145,991</td><td>197,999</td><td>146,708</td><td>212,884</td><td></td></th<>		18-Wednesday	2,477,115	99,845	150,817	107,991	173,392	326,399	258,214	145,991	197,999	146,708	212,884	
19-Saturday       2       2       42,42,437       130,752       163,647       779,945       190,866       319,040       170,046       189,604       157,577       160,551       167,371         19-Sunday       6       1,078,79       47,030       76,962       42,917       103,466       142,458       69,707       72,210       124,508       49,994       90,181         19-Thursday       6       3,06,577       63,189       69,488       34,942       109,254       200,020       105,613       77,683       120,001       68,434       111,806         19-Thursday       6       986,095       40,916       61,209       40,720       81,183       158,42       778,80       505,08       66,620       66,193       68,194       68,		19-Friday	2,853,437	114,699	179,253	119,555	201,520	396,135	250,694	184,626	216,941	186,927	211,069	
Normal         Normal<		19-Monday	875,794	39,735	66,927	26,611	73,427	137,614	73,035	50,078	74,360	46,383	70,394	
Normalization         Normalinteranin andinterance         Normalization		19-Saturday	2,424,837	130,752	163,647	79,945	190,868	319,401	170,046	189,604	157,597	160,551	167,371	
19-Tuesday       996,095       40,916       61,209       40,720       81,183       158,432       78,801       50,508       86,260       56,043       66,198         19-Wednesday       1,034,259       33,882       78,323       30,735       86,564       168,792       91,103       69,675       88,552       52,741       86,270         20-Friday       884,645       18,444       75,309       15,088       72,713       123,576       71,770       58,380       70,907       63,948       58,509		19-Sunday	1,078,791	47,030	76,962	42,917	103,406	142,458	69,707	72,210	124,508	49,894	90,181	
19-Wednesday         84,645         18,444         75,309         15,089         72,713         123,576         71,770         58,380         70,907         63,948         58,509		19-Thursday	1,306,547	63,189	89,488	34,942	109,254	200,020	105,613	77,863	120,001	68,434	111,806	
20-Friday 884,645 18,444 75,309 15,098 72,713 123,576 71,770 58,380 70,907 63,948 58,509		19-Tuesday	986,095	40,916	61,209	40,720	81,183	158,432	78,801	50,508	86,260	56,043	68,198	
		19-Wednesday	1,034,259	33,882	78,323	30,735	86,564	168,792	91,103	69,675	88,552	52,741	86,270	
	orioe	20-Friday	884,645	18,444	75,309	15,098	72,713	123,576	71,770	58,380	70,907	63,948	58,509	

Figure 3. Store by store based on time of day trading

9.00pm time zone

Figures 1 and 3 reflect different intelligence profiling which is achieved by right clicking as displayed in figure 2. Figure 2 further illustrates the simplicity of use allowing the same profile to be viewed by margin \$ or margin % or by units as the need may arise.

Revenue focus can then be alternated to the time of day view as shown in figure 3 allowing the initiation of various actions focused on optimizing volume during either low or high trading timeframes. This can also be most useful when aligning resources at peak and off peak timeframes.





*Figure 4 allows specific questions to be answered which can be customized depending on the trading or learning requirements.* 

Revenue and margin optimization strategies can be automated through an easier question to answer driven approach as facilitated in the navigator screen. This navigation capability can be most useful if a process driven approach is required towards the sales intelligence methodology.

First stage implementation can be limited to focus on targeted performance areas that ensure specific attention allocated to certain managers. This targeted approach limits the user's requirement to identify what they need to look at.

Price pointing allows the manager to determine volumes and margins by different price points. This intelligence capability is most useful when viewed by time of day or day in week.

### The key benefits of Sore Optimization include

- 1. Promotional benefits. The ultimate application here is through the various social networking which such as Twitter and Facebook that enables targeted messages at targeted timeframes mainly reminding people of what they buy and when. We notice that no social marketing programs are being deploys as at today date. Even without the social program RM enhances traditional promotional impact with a more targeted message in specific the ability to make promotions more regionally targeted
- 2. Margin growth though a higher awareness of the high margin mover and the assurance that they are never out of inventory specifically in the time slots that make those inventory items most popular. (see price point performance)
- 3. Blind spot growth 1. Simple awareness of where a product or product group is outperforming here in relation to **comparative store comparisons**. Retail Matrix add to the capability in that it informs as to the different circumstances as to how the outperformance happens for example it may be consistently outperforming on the weekend or at a specific time of day or a specific day of week. How does this help? Numerous controllable factors make create this
  - a. Different staff gives different results. Who is consistently on duty during the outperformance or vice versa?
  - b. Store location and ease of access specifically during heavy traffic hours
  - c. Store location based on its neighbors. Some neighbors are just most lucrative than others. This may not help the underperformer but it will shed a lot of light on new locations.
- 4. Blind spot growth 2. Representing the Fur coats don't sell in Florida syndrome. This awareness is manifested in RM through the product sales by store analysis (see figure 1). Here managers can tailor the store merchandise specific for its target market.
- 5. Simply get rid of poor performers and replace the space with higher performers in specific if this is done on a store by store basis.

### **RESOURCE UTILIZATION**

Store optimization considered the process to maximize revenue and margins. Resource utilization is both cost driven through the reduction of non value added resources and by ensuring that the resources deployed are done so at the most effective manner. Recognition is also given to the practicalities of resource scheduling. Retail Matrix at a minimum will facilitate where and when would be the best way to align resources within the trading conditions of each individual store.

Achieved through

- > Volume by time of day
- > Volume by day of week

Driven by

✓ Unit volumes by product group

The answer to "when do we need more or less hours and why", can be the difference between normal profit and best of breed store contribution.

The user has the ability to select on screen as to the time of day the most money or throughput is achieved. It is agreed that some of this is obvious it could be stated that in the main volumes are light in the early morning and late evening however consideration should always be made on:

- Which stores does this conventional wisdom not apply and what are the peculiar circumstances that create these anomalies
- During peak hours what is selling the most and what is the best resource strategy to grow these product sales
- When should restocking activities take place and how does this compare to what is actually happening according to the schedule.

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Categories	TimeofSale 🔺	Total	NC	FL	SC	NY	GA
na of Time na of Time na of DayofWeek na of Week/End	08-Friday	143,902	46,994	742	69,567	23,095	3,503
a ∲ TimeOfDay a ∲ Margin_Percent	08-Monday	61,502	24,962	3,285	22,756	7,230	3,269
	08-Saturday	48,455	13,511	3,254	21,613	8,740	1,337
	08-Sunday	24,835	7,373	2,457	8,006	815	6,184
	08-Thursday	124,559	50,252	6,039	44,113	6,263	17,893
	08-Tuesday	101,151	26,294	42,220	15,571	10,954	6,111
	08-Wednesday	124,933	69,464	13,261	24,067	13,104	5,037
	09-Friday	1,484,807	568,390	173,367	371,671	178,885	192,494
	09-Monday	909,104	342,373	123,854	215,575	103,371	123,931
	09-Saturday	820,096	284,541	117,541	199,243	133,633	85,138
	09-Sunday	870,321	244,381	212,114	197,389	123,446	92,992
	09-Thursday	1,291,664	494,965	169,912	293,595	187,151	146,041
Categories	09-Tuesday	1,116,154	434,659	171,624	260,556	118,500	130,815
Galactic Contraction	09-Wednesday	1,313,142	510,593	201,174	274,874	148,060	178,441
TimeofSale Products	10-Friday	4,230,424	1,484,457	606,387	970,223	548,007	621,350
- Trouble							

#### Figure 5 Revenue volumes by time of day reflected by geographical profile

Retail Matrix enables the alignment of resources by with store volumes selected on a more global basis as shown in figure 5 or on a store by store basis as shown in figure 6

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	All Branch Salesard		meofSale by C owing Yr To Feb '										
Categories	TimeofSale 🔺	Total	Countryside Plaza	1317 Broadway	Westerly Hills Shp Ctr	Hutchison Shopping Center	Tryon Plz Shp Ctr	Meridia Square	Columbia East Shp Ctr	Northway Plaza	Central Ave	King Plaza	Brooklyn Shp C
a ⊕ Time a ⊕ DayolWeek a ⊕ Week/End	08-Friday	143,902	216	17,779	480	2,763	43,019	191	14,264	15,350	732	39,954	5,3:
a grow week/End a grow TimeOfDay a grow Margin_Percent	08-Monday	61,502	361	2,977	1,709	503	21,626	39	17,932	4,044	1,124	780	4,2
	08-Saturday	48,455	2,274	6,093	141	243	11,171	777	4,856	8,749	1,955	8,008	2,6
	08-Sunday	24,835	155	292	1,155	544	4,905	407	589	6,051	770	1,366	5:
	08-Thursday	124,559	3,451	1,588	770	21,975	20,798	2,533	2,427	14,381	6,708	27,304	4,6
	08-Tuesday	101,151	34,848	9,085	619	553	21,048	6,896	2,174	3,477	4,074	9,919	1,80
	08-Wednesday	124,933	9,916	11,773	2,072	8,386	16,758	3,033	2,104	11,834	42,249	10,129	1,3
	09-Friday	1,484,807	79,904	120,169	65,837	114,016	327,915	57,924	127,806	124,705	60,621	119,161	58,7:
	09-Monday	909,104	56,279	55,545	43,830	50,796	184,811	43,438	52,297	93,978	62,936	69,299	47,82
	09-Saturday	820,096	26,076	53,851	38,491	75,124	116,943	50,346	47,950	74,437	53,983	76,857	79,78
	09-Sunday	870,321	45,586	43,779	20,093	35,727	123,482	120,680	34,867	94,366	65,079	68,157	79,66
	09-Thursday	1,291,664	57,729	112,157	88,333	81,452	266,375	78,710	76,913	127,309	58,804	89,374	74,9 <sup>9</sup>
Categories	09-Tuesday	1,116,154	68,867	66,392	63,498	52,459	227,815	61,202	72,041	115,049	90,887	73,466	52,1(
G Outlet	09-Wednesday	1,313,142	72,396	81,479	49,827	90,171	250,311	79,451	89,143	109,973	120,285	75,759	66,58
32 TimeofSale	10-Friday	4,230,424	225,733	295,511	220,997	270,568	747,970	207,897	297,892	358,082	244,923	314,248	252,49
Products	•				III							8 	F.

Figure 6 Store volumes by time of day at store level

This is most useful when looking at an individual store as depicted by figure 7 which will show the volume for a selected store by SKU level (if required) as to when the items are sold.

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	All Time DayofWe	ek S	Products I howing Yr 1	oy Timeof	Sale For O	utlet: 1317	7 Broadway	1								
Outlet	Products	▼ Total	08-Friday	08-Monday	08-Saturday	08-Sunday	08-Thursday	08-Tuesday	08-Wednesday	09-Friday	09-Monday	09-Saturday	09-Sunday	09-Thursday	09-Tuesday	09-Wednesday
- 3 1317 Broadway Ben Hill Square Brooklyn Sho Ctr	GRAND TOTAL	12,520,237	17,779	2,977	6,093	292	1,588	9,085	11,773	120,169	55,545	53,851	43,779	112,157	66,392	81,479
Busch Plaza Shoppi Central Ave Columbia East Shp C	Boss Black Leather L	2,989,072	0	0	0	0	0	0	0	12,300	8,552	5,477	6,534	9,321	8,456	9,225
Countryside Plaza	Egyptian Cotton 65	702,596	0	0	0	0	0	0	0	6,934	0	1,541	1,541	3,852	770	770
Meridia Square     Morthway Plaza     Old National Exchan	Anchor Hocking 34	442,462	0	0	0	0	0	0	0	4,721	2,814	2,451	1,861	4,085	3,359	3,223
Gid National Exchant     Shp Ctr     Shp Ctr     Shp Dtr     Shp Dtr	RabbitAir MinusA2 Ul	334,706	0	0	0	0	0	0	0	2,814	2,224	1,816	726	2,270	2,360	3,087
	HON 530 Series 2-dr	329,759	0	0	0	0	0	0	0	1,308	163	490	654	1,471	490	654
	Ungaro Desnuda Wo	233,350	0	0	0	0	0	0	0	499	45	182	318	136	318	227
	Hewlett Packard 45/	222,327	0	0	0	0	0	0	0	423	565	529	318	600	353	847
	Curve Crush Women	219,658	0	0	0	0	0	0	32	1,052	1,339	542	510	1,116	1,148	957
	Sorrento Burgundy	200,467	84	0	0	0	0	0	0	418	167	84	293	376	543	418
	Stuhrling Original 'Wi	199,376	0	0	0	0	0	0	0	1,007	604	403	1,208	403	0	1,611
	Copier Toner for Ric	187,824	0	0	0	0	91	0	45	2,950	1,180	999	409	1,816	1,997	2,270
Categories	Tailored Microsuede	185,509	0	0	0	0	0	0	136	908	999	817	318	1,271	1,271	726
Outlet	Weston Apple-n-Frui	185,368	4,978	810	900	0	360	2,309	2,399	13,975	3,059	4,409	900	16,674	2,759	8,727
Contraction Contraction	Serenity Spa Gift Ba	183,389	4,978	810	900	0	360	2,309	2,399	13,975	3,059	4,409	900	16,315	2,759	8,727
Products	٠ ( m															

#### Figure 7 Volume by time of day for selected store 1317 Broadway

#### Figure 8. Product categories for all selected stores by time of day

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		Products by Showing Yr To F					,									
Outlet	Products-Group 🔺	Total	08-Friday	08-Monday	08-Saturday	08-Sunday	08-Thursday	08-Tuesday	08-Wednesday	09-Friday	09-Monday	09-Saturday	09-Sunday	09-Thursday	09-Tuesday	09-Wednes
- 👶 (All) - 👶 1317 Broadway - 👶 Ben Hill Square	Apparel	189,553	0	0	23	0	0	23	23	1,333	819	515	959	959	1,170	ç
- Brooklyn Shp Ctr Brooklyn Shp Ctr Busch Plaza Shoppi	ArtSchoolSupplies	223,619	300	188	235	291	197	56	451	2,655	1,597	1,665	2,154	1,989	1,254	2,1
Central Ave Columbia East Shp C	AudioVideo	2,322,358	3,709	1,362	1,374	899	2,426	792	1,899	28,075	29,968	18,265	17,454	21,350	17,388	19,1 <sup>=</sup>
- 🍰 Countryside Plaza - 🛃 Hutchison Shopping	BabyClothing	406,813	36	0	0	72	36	36	0	1,651	323	897	3,015	1,148	682	;
🍰 King Plaza 🍰 Meridia Square 🍰 Northway Plaza	BabyGifts	25,618	0	0	0	0	0	0	649	130	0	260	0	130	130	
	BackpacksBags	2,081,903	338	178	447	196	94	210	576	8,742	5,627	6,318	7,487	7,890	5,075	6,5
🕹 Westerly Hills Shp D	BeautyProducts	1,026,740	438	144	166	254	144	20	45	4,986	3,458	4,493	5,110	4,210	4,178	4,9
	BeddingBath	<mark>3</mark> 7,698,926	7,896	6,241	3,104	4,061	5,530	11,201	5,475	242,169	161,032	144,256	188,615	211,370	175,273	183,7
	BindersAccessories	424,692	161	0	32	65	97	65	65	2,389	1,582	1,647	2,745	2,583	1,873	2,0
	BusinessCases	1,378,207	131	131	45	131	0	131	45	4,991	2,125	2,919	2,480	4,898	3,620	2,8
	CamerasPhoto	392,452	0	0	45	135	0	0	45	1,592	1,476	2,437	1,274	1,616	825	1,2
	CampingOutdoors	457,758	114	142	21	51	82	90	52	2,545	1,469	1,254	1,258	1,896	1,326	1,5
	CarElectricalSyste	119,565	1,609	0	0	0	1,545	3,154	1,850	8,029	1,126	4,119	7,305	4,843	1,255	3,6
	CarInterior	12,695	0	129	0	0	0	0	0	0	0	0	0	0	0	
	CasesPlanners	125,132	0	843	1,644	1,154	932	1,257	2,285	4,244	1,302	6,404	2,366	7,357	3,179	10,2
< >	ChildrensWatches	93,255	0	0	0	0	0	0	0	3,216	0	0	3,015	3,015	5,025	9,0
📁 Categories	Collectibles	1,974,658	38,657	2,996	7,498	1,949	25,290	15,965	18,824	108,057	29,261	57,010	26,314	60,006	61,289	84,5
🔒 Outlet	ComputersHardwareS	1,034,040	1,283	1,060	930	43	2,361	130	1,704	18,387	5,409	6,576	6,123	12,021	10,223	10,5
Contract TimeofSale	DeskAccessories	68,483	1,302	0	0	0	0	0	222	2,573	740	0	740	1,124	1,568	1,7
Products	<u>، الله الله الله المارة الم</u>															•

#### Figure 9 Day of week performance by product category

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	All Time DayofWeek	Products by Showing Yr To I							
Categories	Products-Group	🔺 Total	1-Sun	2-Mon	3-Tue	4-Wed	5-Thu	6-Fri	7-Sat
ATVsMotorcy	ParlorGames	1,737,079	322,556	176,832	165,731	187,234	198,838	326,025	359,862
Accessories AdhesivesGlu ⊒ AirTools	SportsFitness	1,859,012	317,573	208,491	209,225	228,457	244,822	332,614	317,830
AirWaterFilter	Collectibles	1,974,658	242,404	169,429	224,992	251,840	280,972	374,636	430,386
<ul> <li>Appliances</li> <li>AreaRugs</li> </ul>	PaperFormsEnvelope	2,020,542	381,045	198,507	195,392	232,024	249,109	369,741	394,724
ArnexbyLucie Aromatherapy	BackpacksBags	2,081,903	397,571	207,876	207,678	214,039	249,133	382,707	422,899
	AudioVideo	2,322,358	579,888	229,991	275,176	241,713	288,152	349,587	357,851
Automotive i c 	GeneralOfficeSuppl	2,458,273	405,818	280,746	286,870	309,415	330,927	429,190	415,307
Bakeware Bakeware	GiftBaskets	2,697,957	343,950	221,734	300,052	355,683	403,744	529,072	543,721
	Furniture	2,962,832	455,126	376,919	371,744	394,802	416,408	500,561	447,273
Belts BinderAccess 	PensPencilsMarkers	3,015,219	483,569	351,013	355,834	384,897	411,824	528,162	499,920
Binders BoardGames 	MensWatches	5,072,127	923,974	540,084	542,524	605,500	657,767	899,304	902,974
	Housewares	6,224,658	825,207	800,925	818,993	867,537	924,063	1,116,626	871,307
Briefcases CRTMonitors	OfficeElectronics	12,444,529	2,181,430	1,410,507	1,431,743	1,554,352	1,646,533	2,180,067	2,039,897
	HomeDecor	12,805,585	1,914,681	1,481,067	1,562,587	1,749,992	1,805,737	2,271,719	2,019,802
CampingHikir 	PerfumesFragrances	13,184,846	2,152,859	1,495,113	1,593,159	1,601,073	1,704,707	2,329,749	2,308,186
CarBatteriesA	KitchenDining	17,624,710	2,596,936	1,976,758	2,127,613	2,344,929	2,493,900	3,159,347	2,925,226
Categories	BeddingBath	<mark>3</mark> 7,698,926	6,827,114	4,132,667	4,092,884	4,397,542	4,872,223	6,719,319	6,657,177
Outlet	OfficeFurnishings	<b>5</b> 0,147,375	8,402,951	5,589,057	5,619,363	6,054,484	6,552,519	9,081,509	8,847,490
33 TimeofSale	GRAND TOTAL	196,716,248	32,676,561	21,895,324	22,452,324	24,252,005	26,155,308	35,239,165	34,045,561
Products									

Figure 7, 8 and 9 illustrate the various intelligence views enabling the practitioner to assess resource requirements for a single store (figure 7) or for multiple stores by product group (figure 8) or by day of week (figure 9). The ability to review performance in this way facilitates high quality due diligence allowing the know before decide core competency achievable.

#### Figure 10. Time of day by day of week

🗛 Salesmatrix V4 - retail I	last qtr								
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TimeofSale Quadrant Vie		Time by Day Showing Yr To		iue +					
Categories	Time 🔺	Total	1-Sun	2-Mon	3-Tue	4-Wed	5-Thu	6- <del>F</del> ri	7-Sat
	_08	629,337	24,835	61,502	101,151	124,933	124,559	143,902	48,455
→ by Margin_Percent → A DayofWeek → A Week/End	_09	7,805,288	870,321	909,104	1,116,154	1,313,142	1,291,664	1,484,807	820,096
⊶ 💭 TimeOfDay ∺ 🗐 Margin_Percent	_10	<mark>2</mark> 4,834,275	3,389,161	3,364,235	3,654,298	3,769,786	3,933,981	4,230,424	2,492,391
	_11	<mark>2</mark> 8,297,211	5,339,340	3,596,080	3,638,387	3,856,375	4,111,553	4,309,094	3,446,382
	_12	18,716,858	4,697,794	2,031,204	1,917,553	2,102,086	2,132,584	2,566,184	3,269,454
	_13	11,829,524	3,024,061	1,259,516	1,052,490	1,164,453	1,206,600	1,531,902	2,590,503
	_14	10,104,628	2,411,712	998,622	948,454	973,558	1,118,323	1,301,937	2,352,022
	_15	12,921,431	2,450,825	1,369,646	1,361,604	1,430,014	1,542,838	1,980,305	2,786,200
	_16	<mark>2</mark> 1,403,369	3,251,051	2,282,187	2,419,577	2,716,078	2,795,392	3,904,775	4,034,309
	_17	26,132,486	3,414,447	2,900,555	2,964,784	3,197,309	3,610,916	5,215,322	4,829,153
	_18	21,260,175	2,618,393	2,160,217	2,228,136	2,477,115	2,870,941	4,791,001	4,114,373
	_19	10,559,759	1,078,791	875,794	986,095	1,034,259	1,306,547	2,853,437	2,424,837
Categories	_20	2,119,164	105,831	86,663	63,642	92,898	109,411	884,645	776,075
Galactic Contraction of Contraction of Contractic Contr	_21	102,743	0	0	0	0	0	41,431	61,311
CimeofSale	GRAND TOTAL	196,716,248	32,676,561	21,895,324	22,452,324	24,252,005	26,155,308	35,239,165	34,045,561

The benefits here are numerous but to mention a few

- **1.** *Cycle counts can be done on items during the time of day when volumes are light.*
- 2. We know which shelves need to be fully stocked when
- **3.** We can match hour paid with volumes
- **4.** We can guide merchandisers from the different vendors where to focus their attention.
- **5.** Where possible we may even change our opening and closing hours.

**6.** Where possible we may have mobile planograms and strategically place them based on what the shopper buys when.

### **SHRINKAGE REDUCTION**

Achieved through

- > Volume by time of day
- > Volume by day of week

#### Driven by

✓ Unit volume variation by **high risk shrink** items

Shrinkage, specifically for low value high sought after everyday products is always a retail challenge. Unfortunately the loss may be driven from internally as well as externally. The traditional methods to alleviate shrink include cycle counts to store surveillance techniques. The effectiveness of these techniques varies from excellent to minimal.

The Retail Store is further disadvantaged with its perpetual inventory system which does not easily facilitate accurate cycle counting for example. In addition the lean nature of the Retail Store business does not facilitate adequate resources to resolve potential variance.

Retail Matrix is not an inventory management tool but it does facilitate the ability to change the way shrinkage is managed.

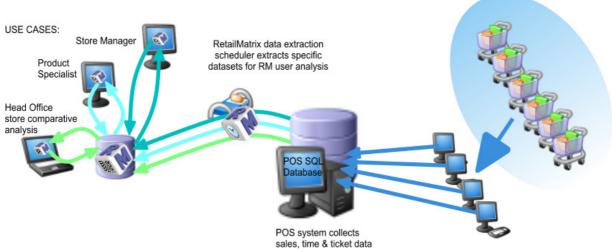
It is a well known fact what is measured is managed or at least prioritized. This measurement visibility often has the same impact as the more extensive deployment of the high cost methodologies as mentioned above.

Retail Matrix has the ability to segment the high risk shrink items and reflect the volumes per high risk as compared to

- Similar stores
- Same store at different days of week
- Xariance in performance from one week to the next by item

This focus increases the perception that the items are "watched" on an ongoing daily basis which is often provides more substance as a deterrent.

## **Retail Matrix data and technology structure**



#### System Requirements

The following is a guide to what hardware is required to run Retail matrix. As with any data based product, improved performance can come from a variety of computer resources. Having the faster processing chip may not speed up disk intensive operations, but in other areas, e.g. traffic-lighting in Salesmatrix, numeric processing speed is important.

#### **Optimal System Requirements**

Pentium IV or higher

512 Mb memory (2Gb better)

Standard CD-ROM

Windows 2000, XP or Vista, 7

1024 x 768 monitor setting

100mb free Hard Disk Space