Retail Matrix

Business Case White Paper

Creating competitive advantage for the retailer

Thursday, August 26, 2010

Contents

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 www.salesmatrix-usa.com).

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?*
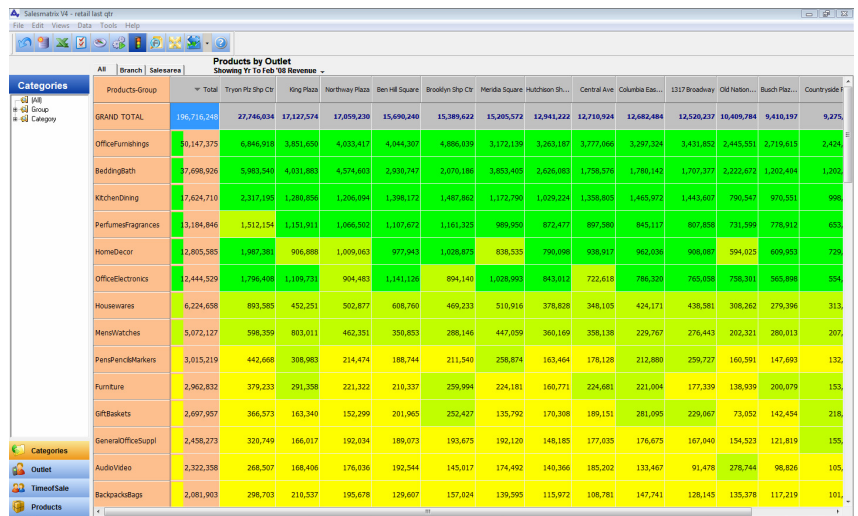
Placing resources on growth sectors

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.

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*

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*
- *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*

Figure 1 Selected Store by store comparison viewed by product group

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

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
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	389,17
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	226,22
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	201,77
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	143,49
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	178,48
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	257,28
19-Monday	875,794	39,735	66,927	26,611	73,427	137,614	73,035	50,078	74,360	46,383	70,394	68,83
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	245,11
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	72,19
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	92,50
19-Tuesday	986,095	40,916	61,209	40,720	81,183	158,432	78,801	50,508	86,260	56,043	68,198	78,73
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	65,30
20-Friday	884,645	18,444	75,309	15,098	72,713	123,576	71,770	58,380	70,907	63,948	58,509	90,83

Red light for stores trading during the 8.00pm to 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.

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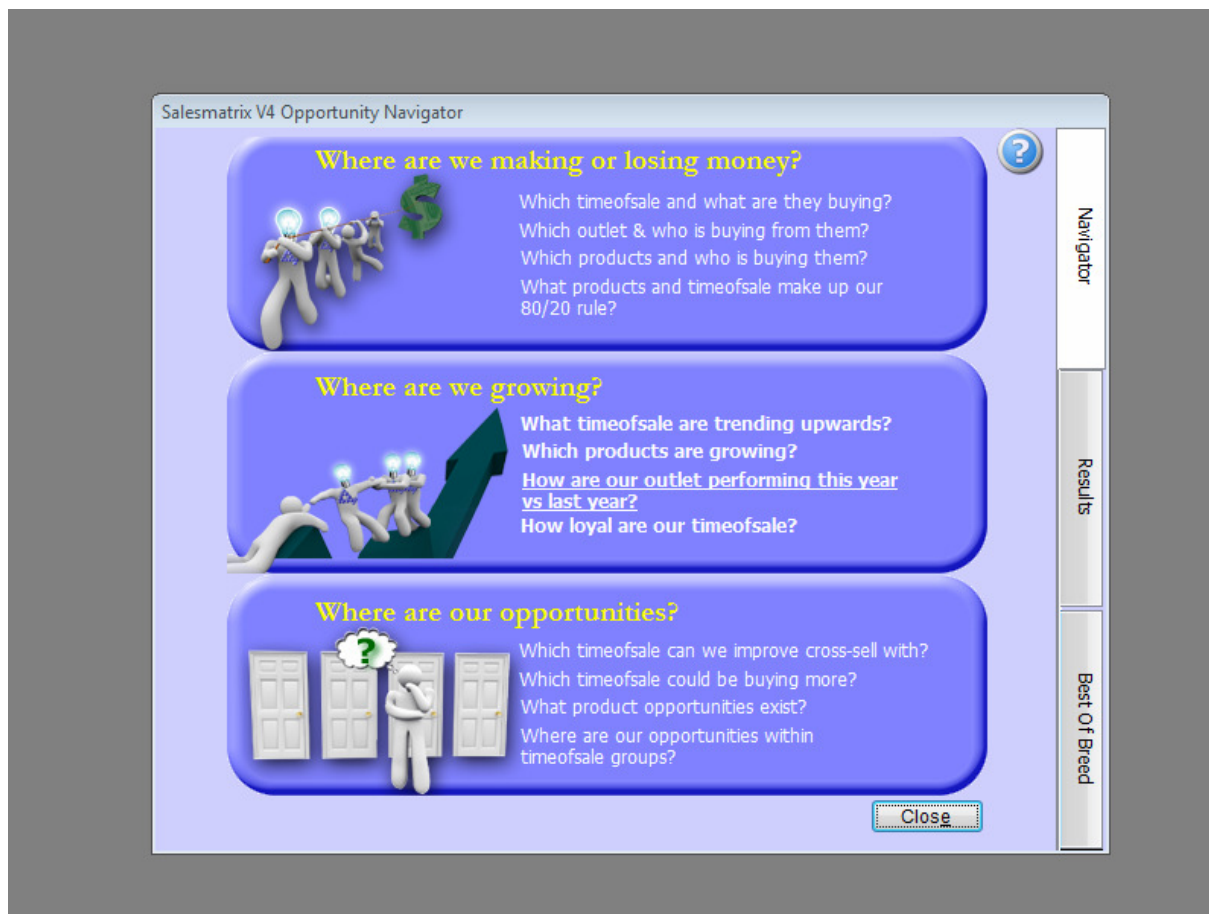*Figure 4. Click on the question and Retail Matrix automates the answer*

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.

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

TimeofSale by Outlet
Showing Yr To Feb '08 Revenue

TimeofSale	Total	NC	FL	SC	NY	GA
08-Friday	143,902	46,994	742	69,567	23,095	3,503
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
09-Tuesday	1,116,154	434,659	171,624	260,556	118,500	130,815
09-Wednesday	1,313,142	510,593	201,174	274,874	148,060	178,441
10-Friday	4,230,424	1,484,457	606,387	970,223	548,007	621,350

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

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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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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Figure 9 Day of week performance by product category

Products-Group	Total	1-Sun	2-Mon	3-Tue	4-Wed	5-Thu	6-Fri	7-Sat
ParlorGames	1,737,079	322,556	176,832	165,731	187,234	198,838	326,025	359,862
SportsFitness	1,859,012	317,573	208,491	209,225	228,457	244,822	332,614	317,830
Collectibles	1,974,658	242,404	169,429	224,992	251,840	280,972	374,636	430,386
PaperFormsEnvelope	2,020,542	381,045	198,507	195,392	232,024	249,109	369,741	394,724
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
GeneralOfficeSuppl	2,458,273	405,818	280,746	286,870	309,415	330,927	429,190	415,307
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
PensPencilsMarkers	3,015,219	483,569	351,013	355,834	384,897	411,824	528,162	499,920
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
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
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
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
BeddingBath	37,698,926	6,827,114	4,132,667	4,092,884	4,397,542	4,872,223	6,719,319	6,657,177
OfficeFurnishings	50,147,375	8,402,951	5,589,057	5,619,363	6,054,484	6,552,519	9,081,509	8,847,490
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

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

Time	Total	1-Sun	2-Mon	3-Tue	4-Wed	5-Thu	6-Fri	7-Sat
_08	629,337	24,835	61,502	101,151	124,933	124,559	143,902	48,455
_09	7,805,288	870,321	909,104	1,116,154	1,313,142	1,291,664	1,484,807	820,096
_10	24,834,275	3,389,161	3,364,235	3,654,298	3,769,786	3,933,981	4,230,424	2,492,391
_11	28,297,211	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	21,403,369	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
_20	2,119,164	105,831	86,663	63,642	92,898	109,411	884,645	776,075
_21	102,743	0	0	0	0	0	41,431	61,311
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*
- *Variance 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
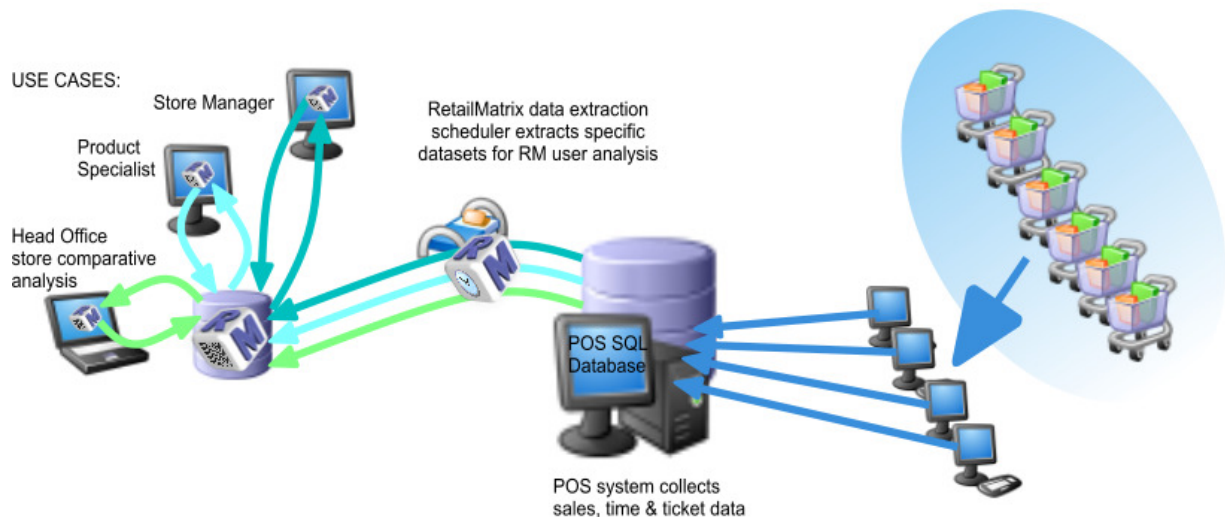
System Requirements

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