

irys™

# RFID for Jewellery

Intelligent Business through Business Intelligence





# About Us

Who we are & what we do

02



A gems & jewellery centric RFID company focused on conceptualizing and developing smarter jewelry management solutions

- Established in 2010
- 180+ global clients
- Singapore, USA, UK, Belgium, UAE, Australia, Thailand, India, Hong Kong, Japan, Indonesia, Philippines, Malaysia and Brazil





# Our Philosophy

E<sup>4</sup> Strategy

03

“ Enable RFID. Empower Users.  
Engage Customers. Enhance Business”



Optimize efficiency  
and accuracy of  
stock verification



Identify patterns  
based on in-store  
interactions



Enhance customer  
experience to  
maximize business



# Business Objectives

Improve Returns on Investment (ROI) in Technology

Increase efficiency of Stock Verification  
**60%**  
 3-4 Months

Improve Staff Utilization  
**20%**  
 10-12 months

Reduce cost of Inventory  
**20%**  
 6-8 months

Improve Sales & increase profit  
**30%**  
 12-18 months



Irys products are aimed not only at optimizing efficiency and accuracy of stock verification processes, but also at providing valuable Business Intelligence for effective planning of production, stocking and movement of Jewelry products to maximize business gains



# What we provide

RFID Expertise for your domain. One stop shop for all your needs

05



Best in class  
RFID Hardware



Easy to use  
Software



High Quality  
Consumables



Dedicated  
Customer  
Support



Consulting  
based on Global  
Experience



# Tiara – Tablet App

06

Single Mobility Solution for Customer Engagement as well as Inventory Management



# TIARA



## Product Catalogue

Showcase all your designs irrespective of their physical availability



## Stock Audit

Scan items accurately and effortlessly at an incredible speed of 30 items/sec



## Item Search

Save time spent on locating missing items or looking for specific items from back stock



## Smart View

Compare multiple items based on different attributes an shortlist through a single consolidated view



# Product Feature - Stock Audit

Quick and accurate accounting anytime and every time

The screenshot displays the TIARA STOCK AUDIT application interface. At the top, there are navigation icons for START SCAN, STOP SCAN, SAVE, and CREATE REPORT, along with a CLEAR button and a POWER indicator at 47%. Below this is a table with three columns: EXPECTED, SCANNED, and ITEM INFORMATION. The table lists several items with SKU IRYS001 and barcode BR002. The ITEM INFORMATION section shows a gold ring with a diamond and provides details such as SKU No., Design No., Status, Gr. Wt., Nt. Wt., and Metal Type. At the bottom, there is a summary bar with a BARCODE SCAN input field and a table of counts: Total (1000), Scanned (0000), Session (0000), Missing (0000), Conflict (0000), and Unknown (0000).

EXPECTED	SCANNED	ITEM INFORMATION
IRYS001 BR002	IRYS001 BR002	 SKU No. : RR6678RR6678RR6678 Design No. : RR6678RR6678 Status : Instock Gr. Wt. : RR6678RR6678RR6678 Nt. Wt. : RR6678RR6678 Metal Type : Instock <a href="#">KNOW MORE</a>
IRYS001 BR002	IRYS001 BR002	
IRYS001 BR002	IRYS001 BR002	
IRYS001 BR002	IRYS001 BR002	
IRYS001 BR002		

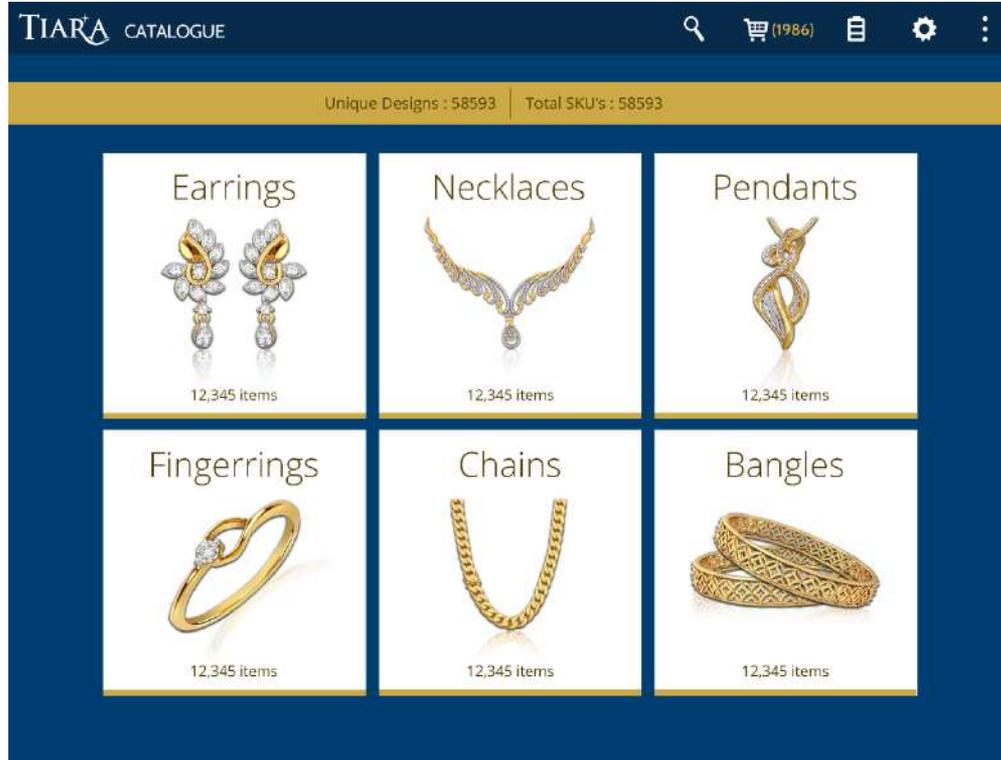
BARCODE SCAN	Total	Scanned	Session	Missing	Conflict	Unknown
	1000	0000	0000	0000	0000	0000

- ✓ 100% Accuracy
- ✓ Over-the-glass-counter scanning
- ✓ Super-fast scan speed
- ✓ Catalog generation / RFID search of missing items
- ✓ Selective scanning based on counter, box, item type, collection etc.
- ✓ Centralized reporting

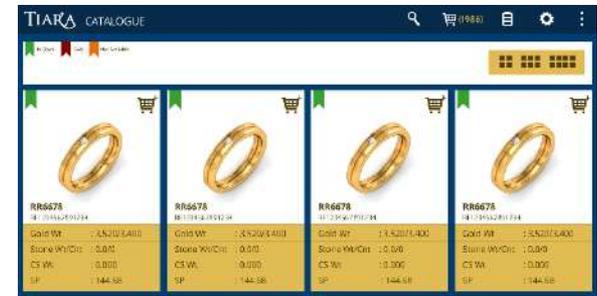


# Product Feature - Catalogue

Provide customers with instant and accurate product information and faster estimates



- ✓ Completely Configurable display and filters
- ✓ Show sets, variations and matching items
- ✓ Slide show with multiple images per item
- ✓ Direct export to catalog and email





# Product Feature – Smart View

Provide customers with instant and accurate product information and faster estimates

**TIARA SMART VIEW**

Compare Remove Add to Cart

**RR6678**  
RF1234567891234

Design No. ✓

**FINDINGS**

Finding Metal :  
Finding Metal Purity :  
Finding Type :  
Finding Weight :  
Center Stone Size :  
Center Stone Type :  
Center Stone Weight :

- ✓ RFID enabled interactive product comparison
- ✓ Ability to directly shortlist items
- ✓ Real time tracker for customer preferences and product viewership

**TIARA SMART VIEW COMPARISON**

Add to Cart

RR6678 RF1234567891234	RR6678 RF1234567891234	RR6678 RF1234567891234	RR6678 RF1234567891234
<b>FINDINGS</b>	<b>FINDINGS</b>	<b>FINDINGS</b>	<b>FINDINGS</b>
Finding Metal	Finding Metal	Finding Metal	Finding Metal
Finding Metal Purity	Finding Metal Purity	Finding Metal Purity	Finding Metal Purity
Finding Type	Finding Type	Finding Type	Finding Type
Finding Weight	Finding Weight	Finding Weight	Finding Weight
Center Stone Size	Center Stone Size	Center Stone Size	Center Stone Size
Center Stone Type	Center Stone Type	Center Stone Type	Center Stone Type
Center Stone Weight	Center Stone Weight	Center Stone Weight	Center Stone Weight
<b>FINDINGS</b>	<b>FINDINGS</b>	<b>FINDINGS</b>	<b>FINDINGS</b>
Finding Metal	Finding Metal	Finding Metal	Finding Metal
Finding Metal Purity	Finding Metal Purity	Finding Metal Purity	Finding Metal Purity
Finding Type	Finding Type	Finding Type	Finding Type
Finding Weight	Finding Weight	Finding Weight	Finding Weight
Center Stone Size	Center Stone Size	Center Stone Size	Center Stone Size



# Product Feature – Estimate Generation

Keep customer interactions going even after they leave your store

TIARA VIEW CART 🔍 🛒 (1986) 🏠 ⚙️ ⋮

Edit | Save As | Clear All Items in cart : 4  
Total Price : \$13287645

	SKU No. : RR6678RR6678RR6678 Gr Wt/Nt Wt. : RR6678RR66 Stn Wt/Cnt. : RR6678RR6678 SP : \$ 183538	Disc. Price <input type="text"/> Qty <input type="text"/> Discount % <input type="text"/>	Remarks <input type="text"/>
	SKU No. : RR6678RR6678RR6678 Gr Wt/Nt Wt. : RR6678RR66 Stn Wt/Cnt. : RR6678RR6678 SP : \$ 183538	Disc. Price <input type="text"/> Qty <input type="text"/> Discount % <input type="text"/>	Remarks <input type="text"/>
	SKU No. : RR6678RR6678RR6678 Gr Wt/Nt Wt. : RR6678RR66 Stn Wt/Cnt. : RR6678RR6678 SP : \$ 183538	Disc. Price <input type="text"/> Qty <input type="text"/> Discount % <input type="text"/>	Remarks <input type="text"/>
	SKU No. : RR6678RR6678RR6678 Gr Wt/Nt Wt. : RR6678RR66 Stn Wt/Cnt. : RR6678RR6678 SP : \$ 183538	Disc. Price <input type="text"/> Qty <input type="text"/> Discount % <input type="text"/>	Remarks <input type="text"/>
	SKU No. : RR6678RR6678RR6678 Gr Wt/Nt Wt. : RR6678RR66 Stn Wt/Cnt. : RR6678RR6678 SP : \$ 183538	Disc. Price <input type="text"/> Qty <input type="text"/> Discount % <input type="text"/>	Remarks <input type="text"/>

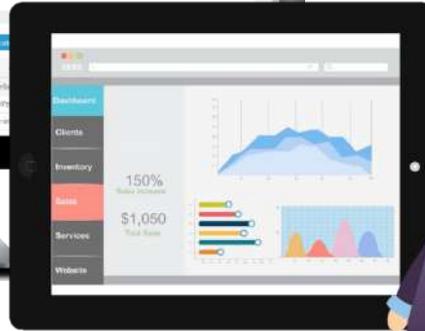
- ✓ RFID enabled instant list preparation
- ✓ Record modification requests to create meeting notes
- ✓ Finalize and record quantity as well as discounts offered
- ✓ Export and email as Quotation, Catalog or list
- ✓ Import and edit a saved list for a returning customer



# Trinity

## Business Intelligence Reporting

11



- ✓ Track customer footfall
- ✓ Monitor sales efforts
- ✓ Reorganize inventory based on actual product viewership
- ✓ Minimize losses through better stock visibility
- ✓ Make informed business decisions based on data presented as graphs and charts
- ✓ Centralized Reporting for all sizes of businesses



# Client Satisfaction

Don't just believe us. This is what our clients have to say...

12

 "I can say with confidence that the system is extremely accurate & a major boon to us as it has drastically reduced the time taken to tally stock" – *Prism Jewellery, India*

 "It was indeed pleasure working with you. We finally have gone live with RFID in Los Angeles. It was really tough having all implemented in time." – *Tara Jewels, USA*

 "I cannot emphasize enough your help on the RFID implementation. Very nice working with you, from professional point of view as well as a person." – *Diarough, Belgium*

 "Your team's support has been excellent. Special thanks for giving us the time required to improve our results and accuracy to the core" – *Santhi Swarna Mahal, India*



義 順 金 莊

NGEE SOON JEWELLERY



“ Besides better visibility of our stocks, the business has also seen productivity gains and a 20% increase in loyalty memberships as our staff can now focus better on sales and customer engagements ”

**Ms. Jan Ho**  
Director – Ngee Soon Jewellery, Singapore





# Irys Value Proposition

The obvious partner of choice for your RFID needs

Cost-effective solution with excellent RFID performance



Perform

Tried and tested mature product in use by 180+ customers globally



Confident

Complete Solution Suite including Business Analytics



Creative

One-stop-shop with Hardware & Consumables Stocking in Singapore



SPOC

RFID partnerships with leading Jewellery ERP vendors for seamless integration / dataflow



Success



# Case Study

POC conducted at a large format jewellery retail chain outlet

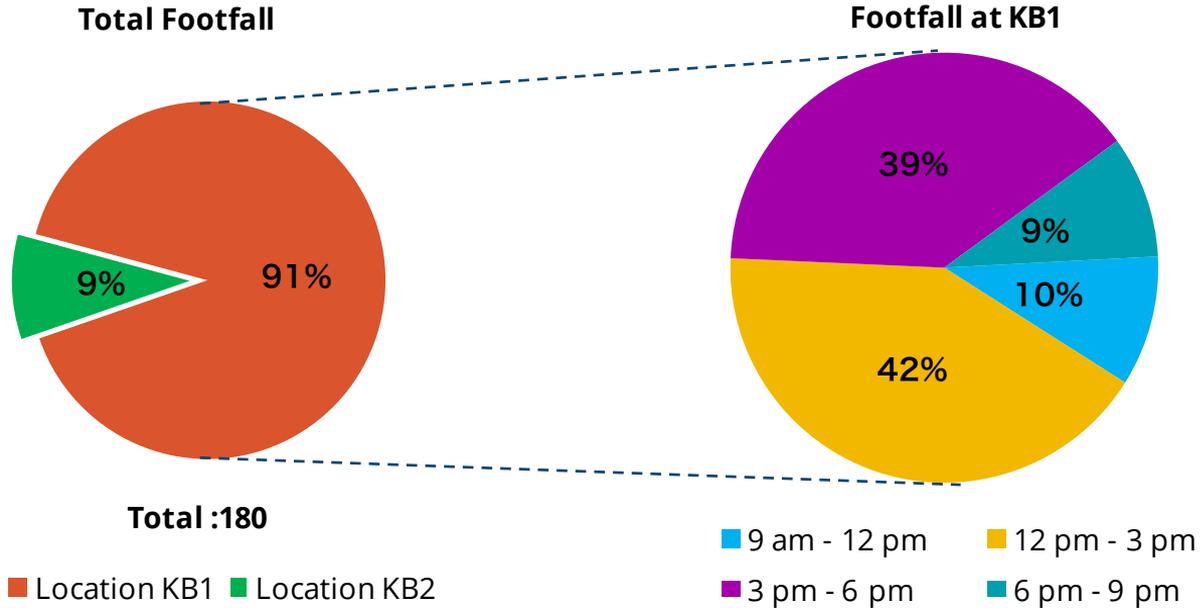
- Approximately 2985 jewellery items in the diamond jewellery section were tagged with RFID
- Data from the store POS system as available at the beginning of the pilot was synchronized with the Irys tablet application - 'Tiara'
- Images for the tagged items (as available) were loaded onto the tablets
- Analytics server was set-up to accept data from the two different tablets to simulate different locations - 'KB1 and KB2'
- Multiple users were registered to simulate different sales staff

## **ASSUMPTIONS:**

- Data provided at the beginning for printing RFID tags and for syncing with the tablet application was accurate and matched the items physically available at the counter
- The Sales staff followed the instructions provided at the outset and religiously made use of the system to attend to customers using the 'E-catalogue' and 'Smart-View' functions.
- The sales staff regularly marked the items moving out of physical inventory i.e. sold, transfer, out on approval etc (since POS integration was not in the scope of this Pilot)



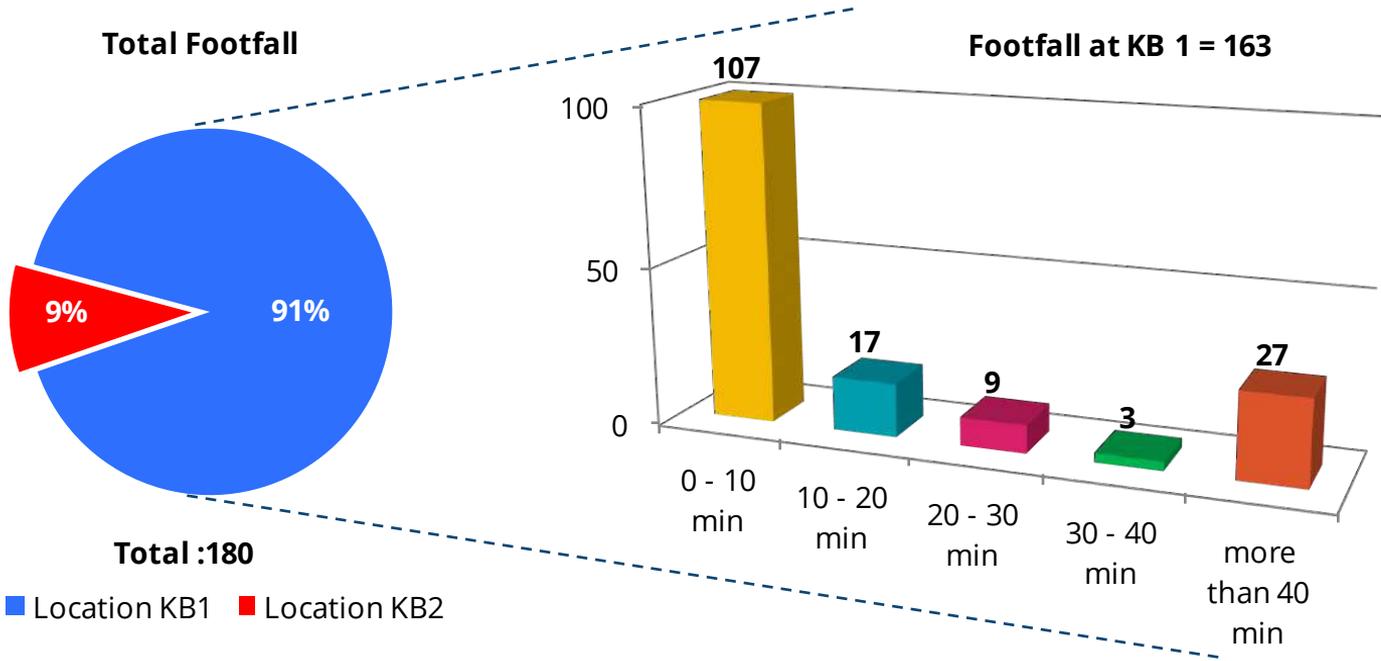
# Footfall Analysis



- KB 1 was the best performing location accounting for 91% of the footfall
- A drill down analysis of KB1 shows that almost half the footfall occurred between 12 pm – 3 pm



# Footfall Analysis



- KB1 seems to be the best performing location in terms of footfall, but a further drill down shows that almost 2/3rds of the customers spent less than 10 minutes looking at merchandise. Chances of a sale are thereby low



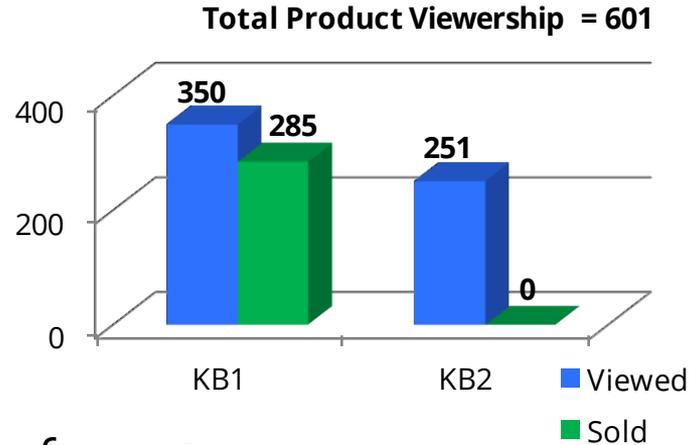
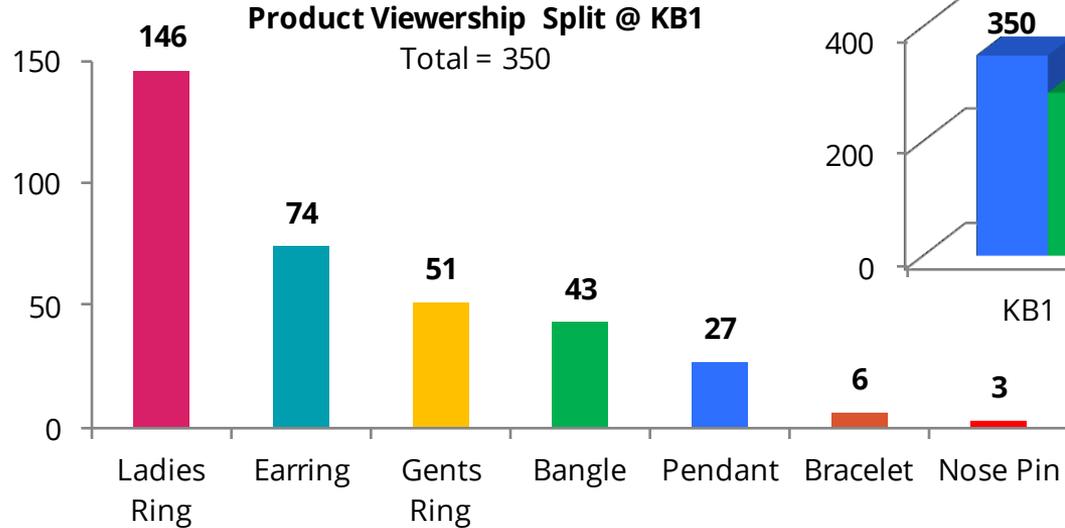
# Footfall Analysis



- To capture the footfall – the sales person is required to sign-in with his/her user-ID at the start of a customer interaction and sign-out once the customer leaves the counter.
- Total 180 sessions were recorded during the test period, which translates to an average of 3 customers a day
- The data above only represents customers that were catered to using the smart app. If used religiously to cater to all customers – the data so obtained can help answer questions like:
  - *Is the marketing / branding spend on the store yielding enough returns by attracting buyers?*
  - *Does this footfall justify the number of staff employed at the store?*
  - *Do you have enough staff in the peak periods and do you need full strength in lean periods?*
  - *Do you need to do something to engage customers effectively and ensure that they spend more time looking at merchandise on display (Convert window shoppers into serious buyers)*



# Location Analysis



- KB1 had a higher footfall, but product viewership in KB2 was almost 2/3 that of KB1 indicating customers in KB2 spending time looking at more number of products. Thereby customer engagement is higher and so are the chances for a sales conversion



# Location Analysis



- The sales turnover from a location may not tell the complete story. Matching it against the product viewership pattern can help analyse the conversion ratio and identify the stores performing better in terms of ability to convert customers.
- Applying best practices from such stores to other stores could help push up the overall sales
  - *If product viewership and sales are both low then the very choice of location of the store can be questioned*
  - *If product viewership is high but sales are low then either there is a mismatch between product and customer choice or perhaps the ability of the sales staff to convert the sales is poor*
  - *If viewership is low but conversion ratio is high then more effort needs to be put into branding/promotion to attract more buyers to these locations.*

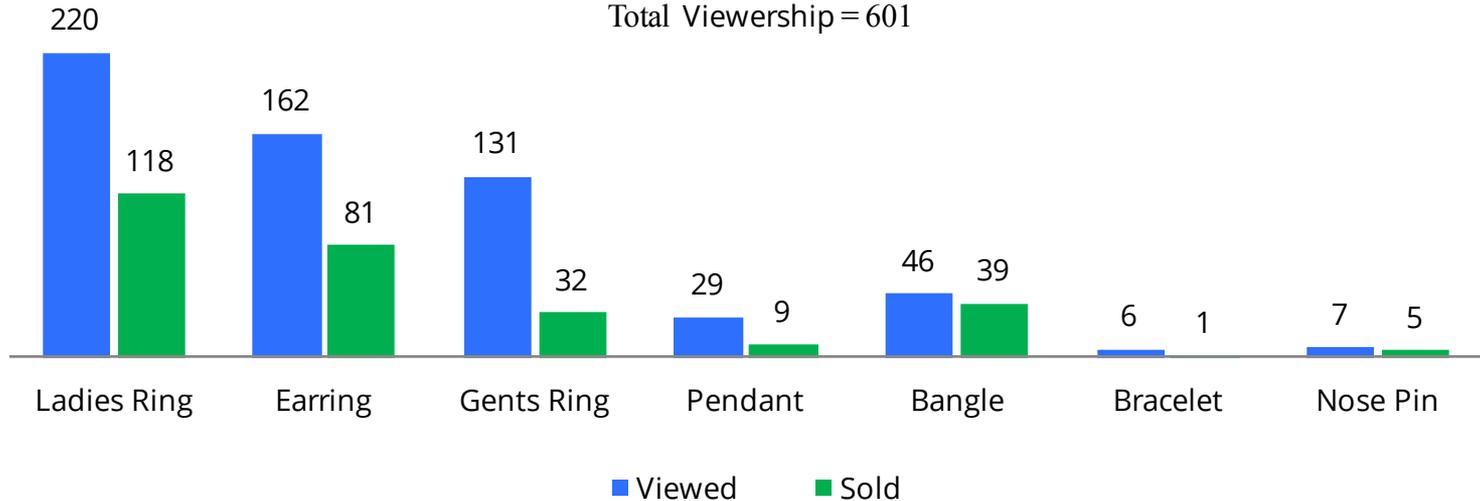


# Product Analysis



### Product Viewership by Item Type

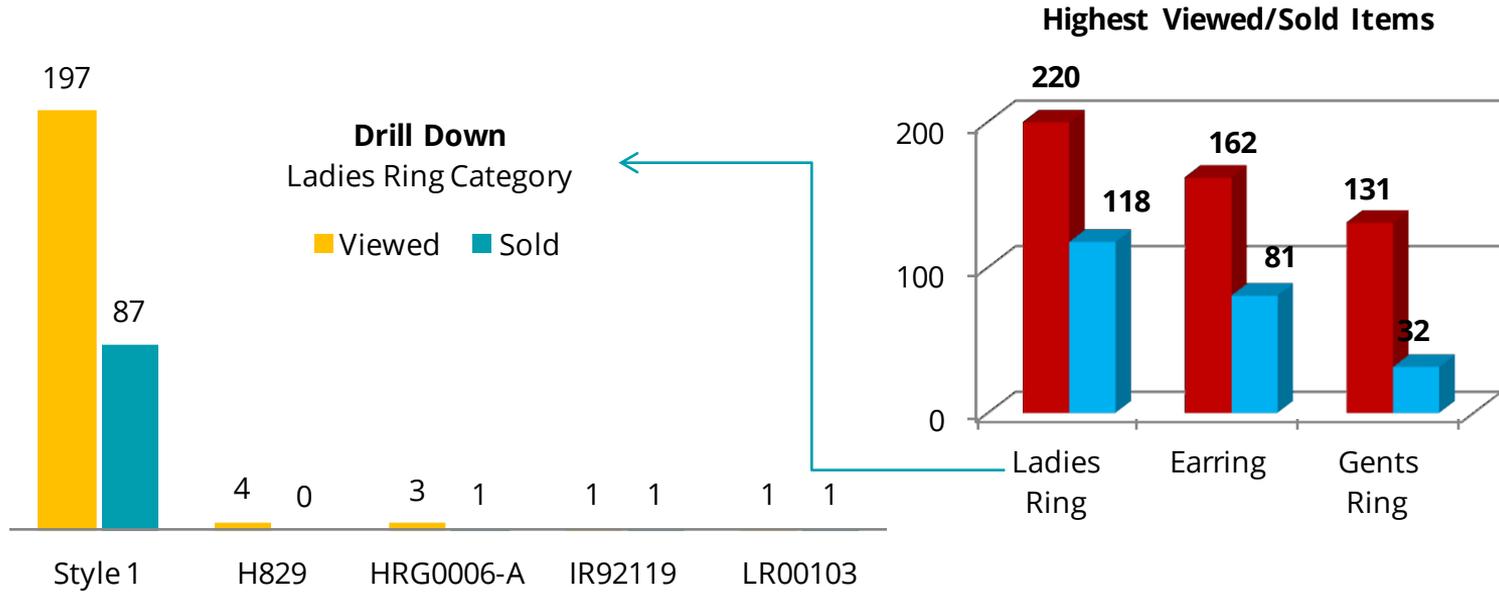
Total Viewership = 601



- ❑ Ladies Rings seem to be the most popular category of items in terms of viewership. However the conversion ratio for bangles is almost twice as much as the ladies rings.



# Product Analysis



- The design Style 1 seems to be clear favorite accounting for a majority of the viewed as well as sold logs in the ladies ring category



# Product Analysis



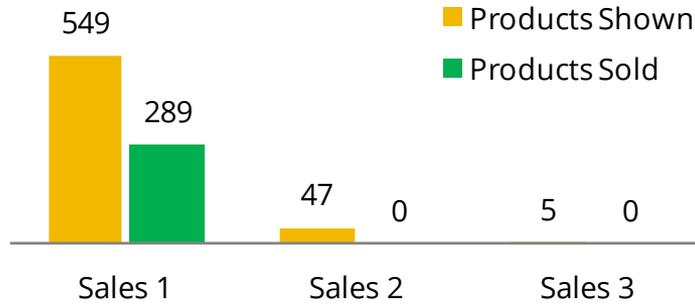
- Product analysis not only identifies the most popular products in terms of viewership, sales and conversion ration, but more importantly it helps identify items that have not been viewed over a sustained period to pinpoint the dead inventory.
- For the purpose of this POC we ignored the list of unseen items since the period of evaluation was relatively short and the system was not used with every customer. Consequently the list of unseen items is much larger as compared to the items viewed. Ideally such inventory should be less than 20% of the total
  - *Should you be stocking more of a certain product and less of another?*
  - *Is there a way of improving conversion ratio*
  - *Why is a particular product being viewed extensively but not getting sold*
  - *Why are certain items ignored? Are they not displayed correctly?*



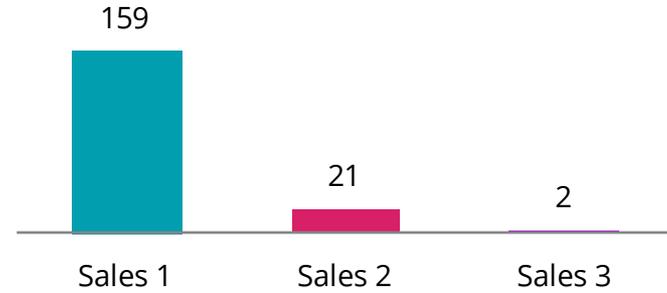
# Staff Performance Analysis



**Staff-Performance**  
By No. of Products Shown / Sold



**Staff-Performance**  
By No. Customers Attended to



- Sales 1 is the best performing Sales Staff having displayed 549 products to approximately 159 customers over the test period
- This translates to about 3 customers attended to daily and showcasing about 4 products on an average, which means he has a good customer engagement
- He has also managed to sell 226 products during this period, which means a conversion ration of 40%. On an average he able to sell 2 products for every 5 products he shows to customers



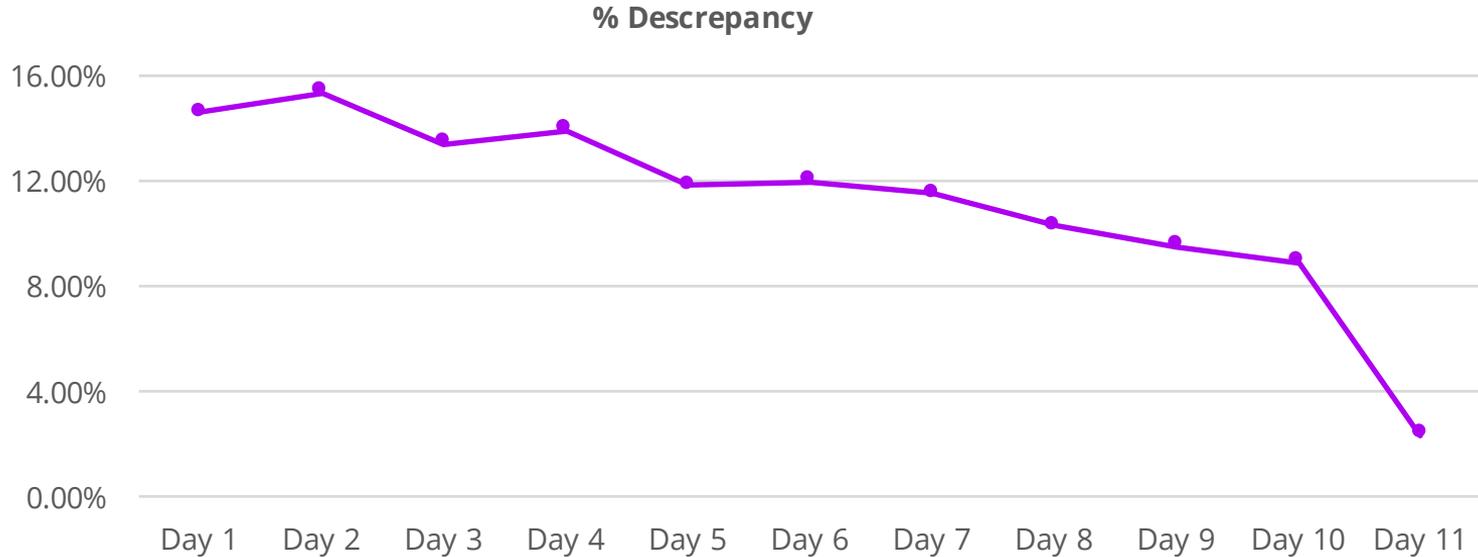
# Staff Performance Analysis



- A drill down may also be performed to gather information on what type of products a particular sales person is selling to understand his/her comfort level with specific types of products. This information can be used to best align the strengths of a staff member with the products to enhance sales
- Staff performance analysis is a review of 'Skill' and 'Will'
  - *A staff member with a good conversion ratio (SKILL) is a definite asset and must be rewarded and retained*
  - *A staff member who may not be as skilled, but makes up for a lower conversion ration through extra effort (WILL - seen from number of customers catered to, number of products displayed and the customer engagement in terms of time spent by the customer at the store) is hardworking and worth retaining as well*
  - *Staff members lacking in both SKILL & WILL are a liability and need to be re-aligned*



# Stock Audit – Discrepancy Analysis



- A central control can be established over the consistency of stock audits across different locations. The stock audit activity for the pilot at KB1 is seen above



# Stock Audit – Discrepancy Analysis

27



- Stock Discrepancy is expected to be higher in the initial phases, but should consistently decrease with each audit session. Ideally the % discrepancy should go down to less than 0.5 %. Only such items should be required to be physically checked.
- The POS system must be closely linked to the Tablet application to ensure that the Expected list is correctly populated.
- Although ideal case scenario is 'ZERO' discrepancy, practically 99.5% or higher scanning is targeted since wear and tear of tags during handling is expected. Such un-scanned items are to be manually verified, and tags replaced if necessary.
  - *How much time is spent on stock verification on a daily basis?*
  - *Are the stock audits being conducted regularly?*
  - *Are all items accounted for on a daily basis?*
  - *Is the reason for discrepancy addressed on time?*

# Thank You



[info@irys.com.sg](mailto:info@irys.com.sg) | [www.irys.com.sg](http://www.irys.com.sg)