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PLANOGRAM-A GAME CHANGER IN VISUAL MERCHANDISING

Abstract

A planogram is not a just visual representation of products, but a representation of retailer's engagement with the shopper. Planogram creation and its compliance needs a lot of manual effort but with the help of automation it can be done swiftly at scale with higher customization and accuracy. It can enhance the shopping experience and improve product availability leading to increased sales. This paper talks about mitigation of space planner pain points

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Introduction

I entered the supermarket at the train station in a hurry to buy some tea bags. I picked up the red shopping basket kept at the entrance. Glanced at my watch, and realized, I still have some time before my train comes. Like always I headed straight to the beverages section, because that's where I will find my tea. While crossing the breakfast bay on the way I saw some cartons of tea. I entered the bay but, could not see my brand. I asked a store associate, and she took me to the usual place where there was only one carton of tea bags. Since I wanted a month's supply, the associate asked me to wait and went to the back. She came back with few more cartons. I took 3 cartons and rushed to the billing counter, as by now, I was getting late for my train.

This short shopping experience, had a multi fold impact on me. What stayed with me was waiting time, reduced staff productivity, lack of clarity in stock tracking and an overall sense of dissatisfaction.

Key challenges, retailers face when it comes to product placement as part of store operations:

- High margin or popular products not present at eye level within the category leading to margin loss

- Misplacement of product with another category leading to loss

- Inconsistency in restocking leads to stock not present and loss of sales

- Difficulty in real time tracking of product with respect to varying demands

- Incorrect placement of Promotion-based / seasonal products

- Inconsistent placement of products by size

- Incorrect definition of product hierarchy like cooking oil storedalong with hair oil

- Incorrect layout planning -impulse products not kept near check-out

- Overstocking of one product resulting in under stocking of another, due to space constraints

A global brick and mortar store has proven to be more resilient in past two years. A recent Mastercard Spending Pulse Report found that U.S consumer in store spending in February 2022 increased significantly with retail spending (excluding auto) rising 10% in February compared to the same month last year and 8.0% compared to pre pandemic levels in 2019.

To be a shopper's first choice, brick and mortar stores need to think constantly of innovative ways to get online shoppers back into the stores. Technology like AI & ML can help retailers improve their competitive edge. Nearly 80% of shoppers will go to the store to buy when they have an item they need or want immediately.

Mastercard SpendingPulse™
U.S. Snapshot – February 2022

	Sales Growth Year-Over-Year Feb. 2022 vs. Feb. 2021	Sales Growth vs. Pre-Pandemic Feb. 2022 vs. Feb. 2019
Total Retail (ex. Auto)	+8.7%	+17.3%
E-commerce	+4.4%	+85.9%
In-Store	+10.0%	+8.0%

Planograms can ameliorate the current situation of the store in many ways

- **Establishing a relationship with the customer:** It is important to keep high selling SKUs, but it is also crucial to keep the range so that we don't lose customers. Maintaining the balance between high selling products, margin giving products and varied product range is very important.

  The store should be one stop solution for shoppers, with positive shopping experience and not panic buying.

- **Increasing Sales:** Planograms give a magnifying glass effect to the retailer's data by mapping the correct product at the correct place. Keeping the high value items at the eye level can make a difference for the retailer.

  - **Sales per square ft can be improved in various ways through planogramming**

    - ✓ Examine historical data and understanding which product is necessary to be included in the planogram.

    - ✓ Impulse items near checkout

    - ✓ Understanding the product hierarchy and interpreting the customer decision tree while creating the planogram.

    - ✓ Change in store layout, lead to planogram change may lead to discovery shopping from search shopping. However, it disrupts shoppers experience so should be done judiciously. Discovery shopping may lead to high bill value

- ✓ Cross Merchandise to increase average ticket value (ATV) and unit per transaction

- **Increasing Turnover:** Data driven planograms can reduce the out-of-stock issues in the store increasing the availability of products.

- **Amplifying the space:** It keeps the product in more organized way by improving the space constraints.

Relationship with the customer

Increasing Sales

Increasing Turnover

Amplifying the Space
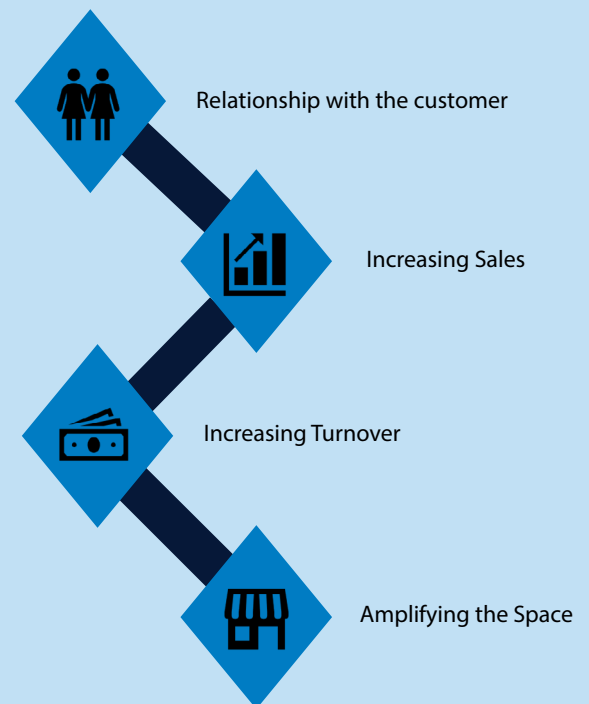
Creating Planogram: Creating planogram involves three major steps.

- **Gather fixture measurements:** It includes depth, width, height of the bay and shelves, peg board details, number of shelves, spacing between shelves or peg hooks from the store.

- **Identify the factors for planning:** Do a detail planning for each category considering brand, visual appeal, season, price, popularity, sales, stock availability, etc. Example: Biscuits should have flavored blocking and Spices should have popularity brand blocking

- **Planogram creation:** Include enough detail store associate to implement it easily. Whatever format you choose, for making the planogram. Detailing can help the store people to stock and maintain display. Legend, labels can be used which merchandise is depicted and create an overview planogram that shows how displays should be placed relative to one another. Share of shelf is allocated for a specific category as per the category captaincy

Who creates Planogram?

Retailers are responsible for creating the planogram. Few Supplier/brands also make planogram for their specific space at store. Space planners take inputs from brands, category team, store, and marketing team. With the season change products changes so the planogram. Decision of changing the planogram depends on season, data, category, range of products. CPG retailers need to change planogram more frequently than others.

Technology tools leading the market in Planogramming

Blue Yonder: It comes with API for a comprehensive floor planning, assortment optimization and other critical process application. 3-Dimensional merchandising display and advance fixturing like curved shelves. Measure KPI by using strong analytics by leveraging customer insights

Smart Draw: Export of planogram through PDF or PNG. Multiple users can work on the same planogram. Intelligent formatting, easy to create fixtures, user intuitive

Scorpion Planogram: They allow the customers to pick and choose the features. 3D renderings allow for a planogram view from multiple angles.

Quant: It has a cloud solution for planogram for the management of retail space, product categories, planograms, shelf labels, automatic replenishment, and store photo documentation.

DotActiv: It offers category management software that allows users to automate the creation of data driven planograms, localized assortment and floorplans and retail analytics

Technological Advancements Aiding Planogram:

Technology can not only help improve store experience for customers but can also reduce work for the back-office and store associates. Thereby increase process efficiency.

By augmenting intelligent image processing algorithm with retailers' mobility platform, it empowers the store associates
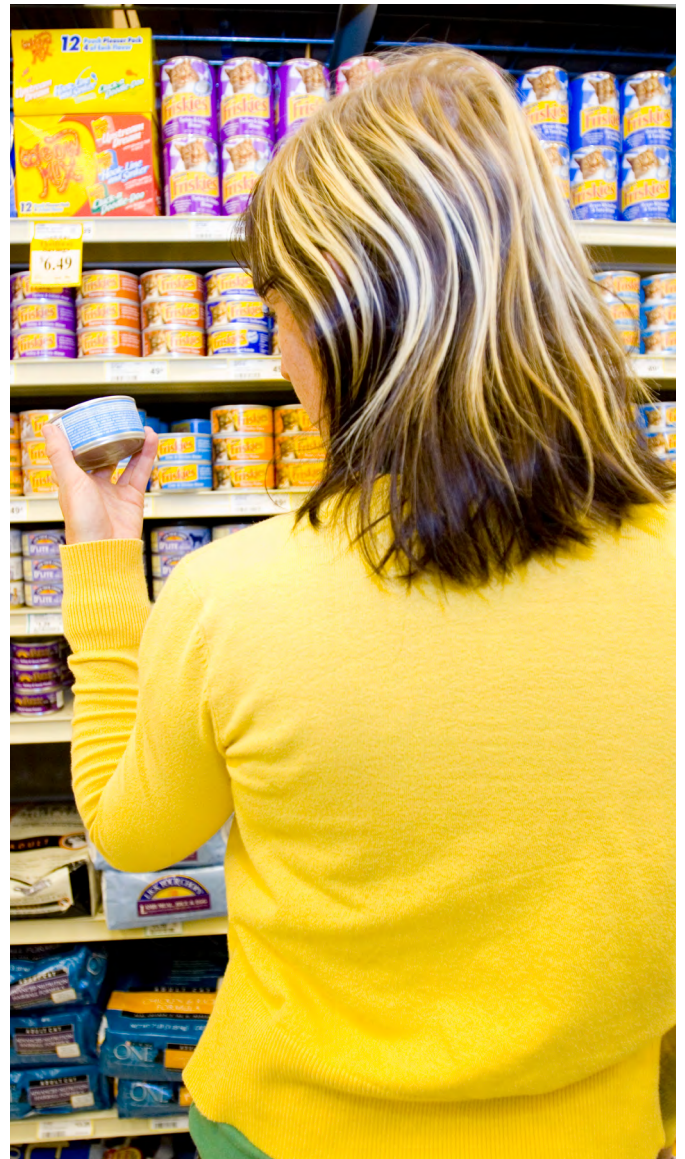
and auditors to instantly generate several configurable reports like, planogram compliance, gap compliance, SKU performance, etc. User engagement, adoption, and process compliance can be enhanced through gamification. Further, a high degree of automation can be achieved by using static on-shelf cameras, CCTV sensors, drones, and robots to capture images.

By doing more automation everywhere we can help the store associate to reduce their workload thus creating time for them to focus more on customer satisfaction. Retailers must connect with the customer and make them feel valued and at home to bring them back again and again to the store. To do that, stores need to design intelligently and strategically.

Shopping experience would have been different with the AI enabled planogram and planogram compliance suite. An efficient customer centric store saves shoppers & store associate's time. Store associates can focus more on customer satisfaction. Shoppers can use the saved time to discover more items. It's a win-win for both shopper and retails, in terms of experience and revenue.

Planogramming is not without its challenges and would need proactive mitigation

1. Time consuming & Repetitive:

Planogram creation is a time consuming and repetitive task. Think of the amount of work needed to produce correct planogram for 100s of stores when products are changing in each category every month. Addition and deletion take lot of time. By the time a Space Planner is done making the changes in a software for all the stores, the product may have got deleted from the assortment even before the planogram got rolled out to the stores. To avoid such scenarios, retailers make use of cluster specific planograms. However, not all stores are exactly same in size; By following cluster specific planogram or assortment, we can lose our sale as we are not using the full potential of the space.

With intelligent planogram creation, planogram changes can be done fast and with high accuracy. Based on predefined rules and sales data, an intelligent planogram tool can automate space allocation and product range.

Now space planners can complete their tasks faster than before. They can set their own rules for each store. Similarly, there are intelligent tools available to improve floor plans. Top Planogram software like Blue Yonder, Smart Draw etc. has automation capability.
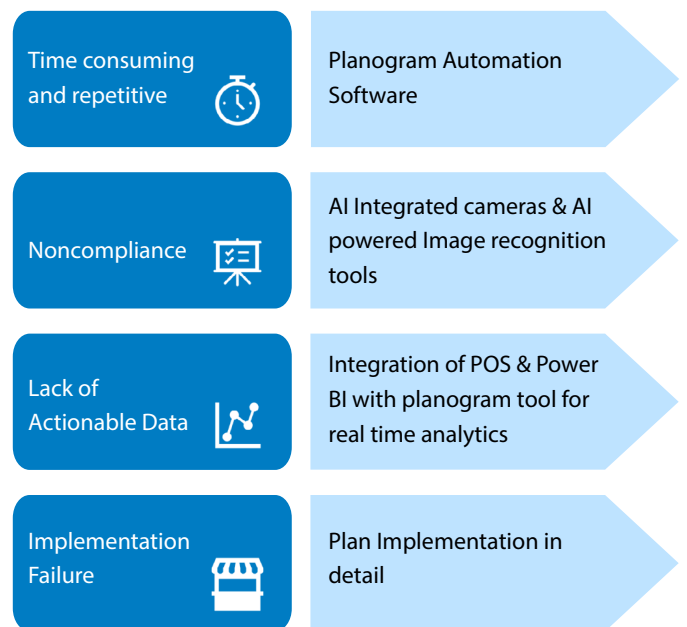
2. Non-Compliance: At store level employees and management tends to find it difficult to maintain planogram compliance. Many retailers go for manual planogram compliance which is very time consuming, expensive and prone to human errors. The average planogram compliance is 60% and it tends to decrease 10% each week for various reasons like inventory, new and delisted products. Noncompliance of planogram leads to ~1% drop in gross product sales, which translates to a lost sales opportunity of between $10 billion to $15 billion across the food, drug, and mass merchandising channels and less than 60% of retailers currently have a way of measuring their planogram compliance. An AI integrated cameras on the store can constantly monitor the

shelves and can even notify the associates if an item got over or if a customer places an item somewhere else. It can relentlessly strive to achieve 100% planogram compliance. With AI powered Image Recognition Tools retailers can also recognize the brand, price tags, signages to automate the compliance and gather customer insights. Additionally, Connected Spaces from Microsoft has the capability of computer vision with AI which can improve store operations.

3. Lack of actionable data:

To design an impactful planogram, you need insights from foot traffic, product performance, customer preferences, retail trends, sales history, promotion data etc. Planogram should provide tangible ROI. Creating a planogram without data is of no use.

Integration of planogram tool with POS system and Power BI for

Time consuming and repetitive	Planogram Automation Software
Noncompliance	AI Integrated cameras & AI powered Image recognition tools
Lack of Actionable Data	Integration of POS & Power BI with planogram tool for real time analytics
Implementation Failure	Plan Implementation in detail

real time sales analytics can help in creating better planogram. A real-time data collection and visualization platform can enable Space planners to validate the impact of planogram change in instantaneously. A specialized dashboard with historical sales data & planogram can validate the before and after effect of the planogram change.

4. Implementation Failure:

Execution of the planogram at the shop floor can fail due to ignorance of store associate, printer issue or limitation to user access.

Implementation planning should be done in detail for each step. Notification should come to the store associate for the latest planogram updates in the store associate app with multiple user access where store associate should be allowed to make changes as per store requirement. Similar notification should go to the Space Planners after the implementation of planogram.

"Efficiency of the Stores and Amplification of the space can only be optimized through Planograming".

Retailers must act on maximize sales, minimize out of stocks, increase freshness and improved customer experience.

Planogram is a critical and powerful competitive differentiator that helps boost the store sales, improve shopping experience, and enables store associates to meet their targets. The next generation utopian store of the future needs to make best use of planogram. This cannot be possible without machine precision, which can only be achieved by intelligent software backed by AI/ML.

About the Author:

Poly Choudhury is a Senior Associate Consultant in Retail Domain at Infosys. She has over 10 years of experience in the Retail Industry, specializing in Space, Range and Display. Her current area of interest is building new solutions for Retail industry, to achieve better operation efficiency and enhance scalability through automation.

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