



STORE DNA

# The Future of Store Innovation

Authored by **StoreDNA**, June 2018.

# How Samsung optimised the store through computer vision

Over March and April this year, a combined team across Samsung, Cheil, and StoreDNA worked to quickly learn from and optimise a Samsung pop-up store. The resulting learning cycle is an early indication of what we will see adopted in the mainstream of retail at large. Let's cover the Samsung journey in further detail...

**The blistering charge of eCommerce players have turned the retail landscape upside down over the past decade. With the digital giants like Amazon and Alibaba now making significant brick and mortar investments, the next innovation race has already started in the retail industry. Major retailers defending their turf are now tackling the big question - what does the store of the future look like?**

There is no shortage of possible answers. Just google "store of the future" and you will find page after page of ideas. But with no crystal ball to predict which will be successful, retailers are developing potential concepts and testing them with customers through pilots. The winner of the race will be the team that can learn and improve the fastest.

How can we maximise feedback and data from every pilot, so that we can more quickly and accurately develop the store concept and scale it to deliver greater value? Our work on a recent Samsung pop-up store offers a glimpse of how this may be done in the future.

## Agile retail adaptation through computer vision:

Over March and April of this year, a combined team across Samsung, Cheil, and StoreDNA worked to quickly learn from and optimise a Samsung pop-up store. In a nutshell, the project comprised of three major parts:

1. Cutting-edge retail platform
2. Analytical rigour + digital retail expertise
3. Agility in execution



SAMSUNG Cheil

**1. Cutting-edge retail tech platform:** Advanced computer vision technology was used to visualise visitor composition (traffic, dwell times, age groups and gender).

**2. Analytical rigour + digital retail expertise:** The digital and retail experts delved into deep structured analysis of the dataset to develop recommendations.

**3. Agility in execution:** The Samsung/Cheil team took part in weekly retrospectives and rapidly deployed live improvements during the course of the pop-up lifecycle.

This learning cycle is an early indication of what we will see adopted in the mainstream of retail at large. Continued advances in sensor technology will provide increasingly granular pictures of offline behaviour and data-driven store design will become a norm.

Let's now cover each of the Samsung journey in further detail...

## The Samsung Galaxy S9 Experience Studio

To drive pre-launch awareness of their flagship mobile product the Galaxy S9, Samsung ran an omni-channel marketing campaign designed by their in-house agency Cheil. Central to the campaign was a pop-up retail store – the Samsung Galaxy S9 Experience Studio – located at the Utrecht train station.



## Galaxy S9 Product Exploration:

The pop-up store was opened prior to the public release of the Galaxy S9, so the phone was not available for immediate purchase. Instead, the products were displayed in different sizes and colours for the visitors to try out and stations were set-up to enable them to explore the advanced features of the S9 including the AR emoji and dual lens camera and super-slow-motion.



## The Experience Zone:

After spending time at the product tables, visitors could enter the experience zone at the back of the store where they could take part in recording a super-slow-motion video on the Galaxy S9.

Finally, visitors were encouraged to share the result on Instagram with the chance to win the new S9 on release.



## Utilising computer vision to quantify in-store behaviour:

220k passengers passed through the station every day making the pop-up store ideally located to increase product awareness of the Galaxy S9. However, with a short pop-up store lifecycle, it was critical for Samsung to maximise every retail moment.

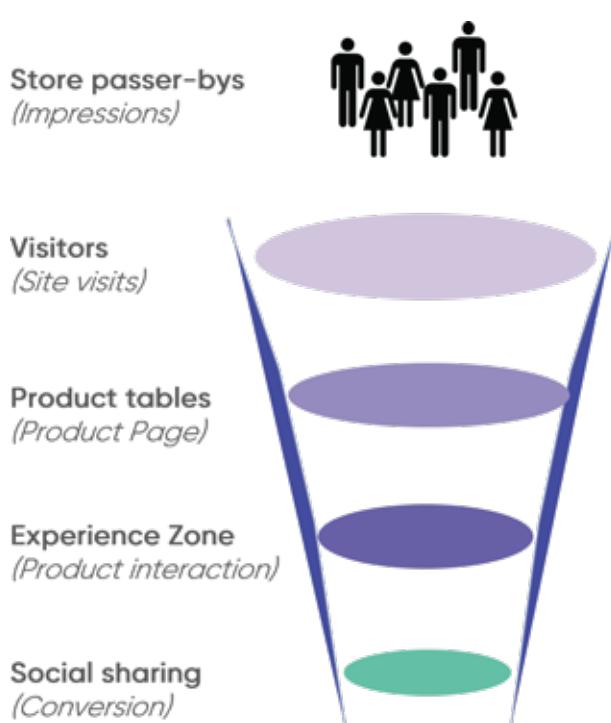
StoreDNA utilised several in-store cameras together with its advanced computer vision algorithms to gather traffic, dwell time and demographic data (estimated age and gender). This data was not just surfaced but presented in dashboard visualisations to give a clear baseline of store performance and initial indicators of performance.



## The funnel approach to store analytics:

At the heart of the approach was to picture the store visitor journey within a conversion funnel as seen in the diagram on the right. Each moment in the visitor journey is a step towards our ultimate goal of converting the visitor to be a social advocate. The journey begins as a passer-by outside of the store and progresses through different zones within the store. In the case of Samsung, they progressed through the welcome zone, product tables and the experience zone. We think of each zone as a funnel stage and define the key metrics we want to track.

For those familiar with digital marketing it may be useful to draw some parallels. For example:



- A passer-by viewing the store is analogous to a web banner impression.
- The store visitor capture rate is analogous to the click-through rate of the banner ad.
- Visitors at the product tables can be thought of as users exploring a website's product pages
- Visitors entering the Experience zone like users exploring products in detail
- Finally, visitors may convert to a social advocate before leaving the store just like social conversion online

## This leaves us with a classic case of marketing optimization. We have two objectives:

- 1 Drive the maximum conversion rate through each stage of the funnel.
- 2 Drive most value out of each stage by creating the most effective environment at each moment.

## Key insights from the Samsung pop-up store:

A number of insights were generated across the combined team. While we can't share specific details, in summary these covered the following:

### **The greatest funnel leakage was conversion to the Experience.**

Improving conversion from the product zone to the experience zone would have the greatest impact on entire funnel flow.

### **Optimisation opportunities for staffing schedules.**

Staff to visitor ratios metrics showed the specific days and shifts that were under-staffed and those that were over-staffed.

**Defined passer-by traffic patterns.** The analysis showed clear patterns in traffic and store visitor capture rates. Further analysis could reveal the drivers these patterns and enable the right messaging and offers to be developed to influence the behaviour of specific consumer groups.

## Getting from Insight to Action: Live store optimisation

The struggle that all digital analysts and marketeers are familiar with in an increasingly data-driven world, is getting from the insights into business action. One of the highlights of the Samsung case was that we established an agile approach. We reviewed data and analysis on a weekly basis and took immediate in-flight actions during the pop-up store campaign to improve results. Samsung attempted 4 optimisations of the store during the campaign. Two of these changes drove positive results while the other two were in-conclusive.

**"We wanted not only to get the data insights but also to apply business actions rapidly. The agility of retailers to adapt stores to the needs of their customers is a key capability"**

**Sander Rooda - Samsung Project Lead**



## Getting from Insight to Action: Live store optimisation

The greatest impact came from navigational sticker. This optimisation aimed to increase the number of visitors to the Experience Zone. We had seen from our analysis that this was the greatest bottleneck in the funnel and an improvement here would make the greatest business impact. The Samsung/Cheil team increased visibility of the Experience Zone by placing a large navigational floor sticker at the entry gangway to the store. The results were significant raising conversion by 1.7 basis points increase and a ~20%+ uplift after implementation!

Optimisation Tests	Description	Result	
	Navigational sticker to experience zone	A navigation floor sticker was added to highlight the Experience zone	Significant increase in conversion after implementation
	"Only x days to go" Window display message	A message was placed in the window display indicating that the pop-up store would end in $x$ days	Significant increase in visitor capture rate
	Balloons in the entrance doorway	Balloons were fixed around the entrance to the store to attract attention	In-conclusive
	Promotional flyering in the station	Samsung promoters distributed flyers in Utrecht station	In-conclusive

## The future of store innovation...

Our experience with the Samsung pop-up store offers a glimpse of the store innovation process of the future. Grabbing data through advanced sensor technology and rapidly synthesising that into action through structured and robust analysis is a new capability that retailers should start building now.

However, enabling data-driven improvement in one or a handful of stores is just the start. Ultimately, major retailers have hundreds or even thousands of stores and innovation must be scalable across the entire store portfolio to make meaningful business impact. Doing this at speed and with agility so that stores can become alive and adapt actively on a daily basis to the needs of the local consumer will be a new competitive forefront for retailers in the future.

If you found this article interesting, please feel free to reach out for more information



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## About



STORE DNA

**StoreDNA is the integrated decision-making platform that delivers dramatically improved performance through better product assortments, layouts, visual merchandising, and sales staff service.**

The StoreDNA solution leverages standard feeds from any merchant high-resolution video collection device and existing point-of-sale systems, processing data in near real-time with proprietary, high fidelity analytical systems and methods. Results of this analysis are presented in the StoreDNA Action Board, which provides a graphical view of performance and a data-science driven set of specific recommended actions that can be reviewed, refined and implemented.