



POPAI / HYPERSOND® IN-STORE RESEARCH REPORT

CASE STUDY – JUNE 2015

This report highlights the results of research work undertaken by POPAI UK & Ireland to evaluate the impact of the HyperSound directional sound system on shopper buying habits.



RESEARCH OBJECTIVE

The aim of the research programme was to validate the impact of the HyperSound® system on shoppers and ultimately sales performance.

WHAT IS HYPER SOUND?

HyperSound® is a disruptive audio innovation that is highly-directional and can drive immersive, virtual reality audio experiences within commercial applications.

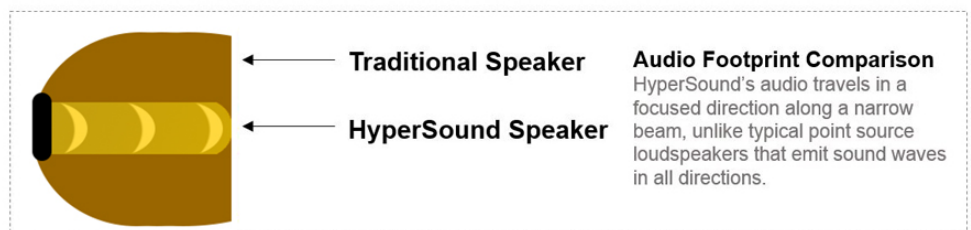


HYPER SOUND® TECHNOLOGY

HyperSound's proprietary technology provides an effective means of projecting sound in a highly directional manner, without using large loudspeaker arrays, to form sharp directional beams. This is the most directional audio solution available, giving designers the unique ability to control the footprint of audio.

Sounds being transmitted using HyperSound speakers are inaudible until the ultrasonic beam or carrier wave hits a surface. So, direct the HyperSound system at a picture frame and the picture frame becomes the source of the audio.

Target an area where people are queuing, and the people/or person in the targeted area become the "source" of the audio. Many people that experience HyperSound audio describe the experience as virtual headphones.



THE IN-STORE SITUATION

Today, convenience retailers and FMCG brands featured in-store are facing ever-greater challenges as competition for customers intensifies, and as shoppers increasingly conduct their shopping missions on “auto pilot” relying on in-store cues (e.g. point of purchase (P-O-P), discount locations) to trigger “manual control” shopping.

According to research, shoppers visit a convenience store around 200 times a year, spending on average five minutes in store each time. The share of trade in the convenience sector is also growing and as a result is coming into sharper focus for brands in their quest to convert shoppers on a top up mission. The till has always been a significant opportunity area for display and in many stores there is a question of how display cuts through due to the proliferation of product available.

Research shows that impulse sales at the till point have been eroded by the significant growth in mobile phone use. Shoppers now seem more interested in checking their text and e-mail messages than observing the purchase opportunities on display around them. This also has ramifications for where shoppers actually look and the potential opportunity for display or product at the till to influence them. So given the difficulty of creating meaningful engagement, in-store HyperSound® speakers could be what’s needed.

Given the situation in convenience today, can sound be deployed in a practical and effective manner to deliver value to brands and retailers alike?

RESEARCH METHODOLOGY

Two convenience retail stores operating under the SPAR brand, a Dutch multinational retail chain and franchise with approximately 12,500 stores in 35 countries worldwide, were selected for the trial, which would test HyperSound audio to its limits, having to compete with a wide range of ambient noise, which apart from the ebb and flow of customer related sounds, would include road and traffic noise, in-store refrigeration, coffee machines and in-store radio.

POP AI undertook a comprehensive review of the performance of directional sound across two selected stores, using video evidence to identify shopper behaviour and questionnaires to establish shopper views, allied to sales data from test brands.

In each store, there were at least 3 ‘zones’ identified, with one store having an experimental 4th zone. All zones were identified for their potential as natural ‘dwell areas’ and therefore opportunities to capture customers browsing, standing or queuing for a short time as part of their shopping mission.

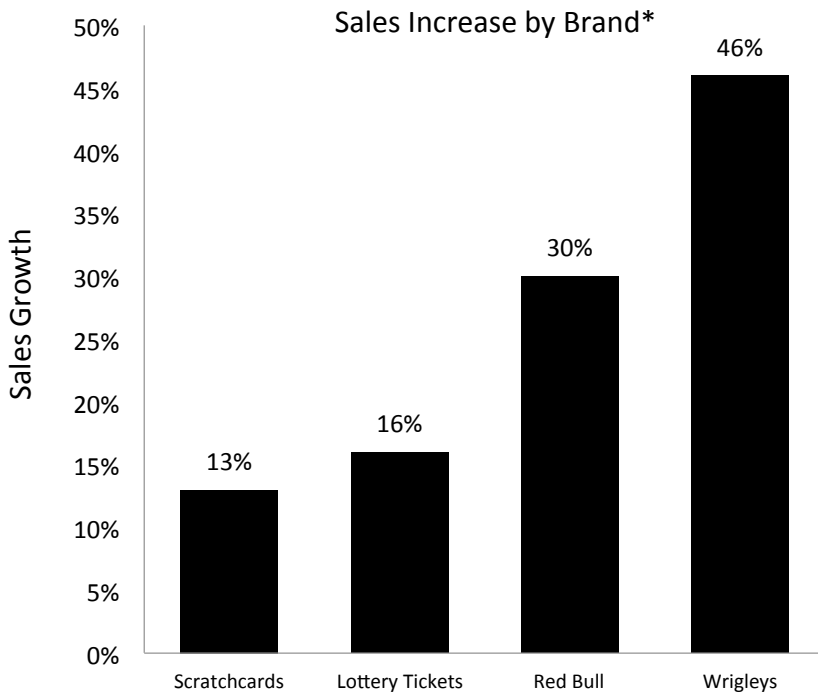
It is important to note that the audio messaging was working without the support of any other overt POS, screen media, or product placement in or within easy reach of the audio zones.

To validate HyperSound’s impact fully, POP AI undertook a robust and tested methodology based on the following five technique:

- Video analysis of shopper behaviour using fixed cameras
- Shopper response
- Staff response
- Audit of any display mechanics or promotions running in competition to, or associated with, brands promoted through the directional sound system, both in the base and test periods
- Analysis of EPOS sales from the test stores and a control store panel.

IMPACT ON SALES PERFORMANCE

The data obtained from the research proves that HyperSound had a remarkable impact on sales. The actual percentage change in respect of sales of the various products is shown in the below chart.



* Euromillions Rollover

The single figure in each case has been 'weighted' to take into account sales performance during the one week test period compared to a four-week base period. Both results being matched against a control panel to remove the affects of seasonality.

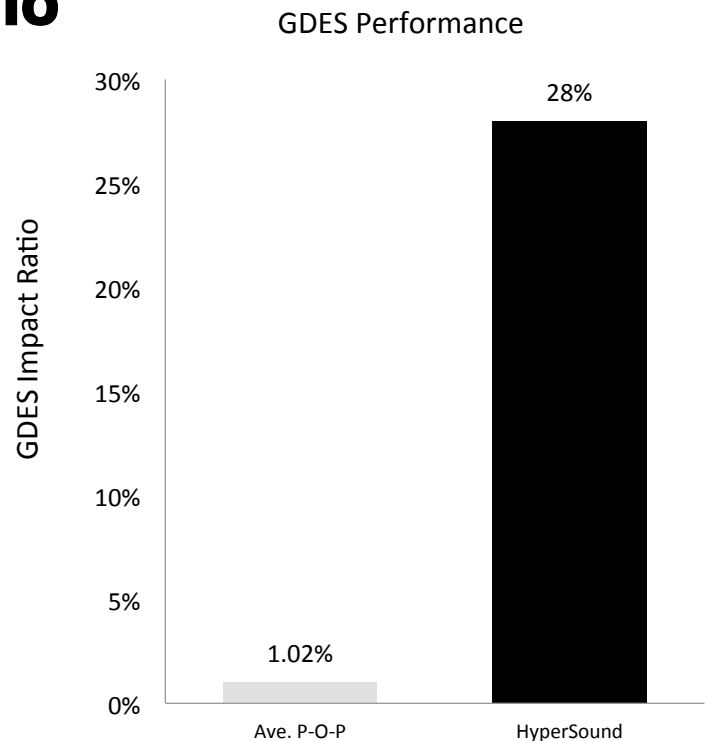
HOW TO IMPROVE FURTHER?

It is vital that once the message is heard the product can be clearly seen and close by in the customer's direction of travel. Stores such as those in the test tend to have a one-way system in operation, so shoppers are less likely to turn back along the aisle searching for products.

CONSUMER IMPACT RATIO

The POPAI Grocery Display Effectiveness Study (GDES) is the world's largest industry study in which 7 million shopper interactions were analyzed across three retail chains – Tesco, Asda and the Co-operative. Covering over 3000 products and 64,000 displays, POPAI's findings are used as benchmark comparisons throughout the industry. One metric of the GDES – Impact - is a measure of the number of shoppers who take note of a display as a ratio of the total number of shoppers who have an opportunity to.

Results from the research showed that HyperSound® speakers delivered a significantly improved GDES Impact Ratio's of up to 28% versus the average of P-O-P measured at just 1.02% in the GDES study.



CONSIDERATIONS

The content of the marketing message and calibration of the in-store ambient volume levels are important to effective message delivery. It is therefore recommended to consult with:

- an approved Digital Signage Content Provider and,
 - an experienced installation and system integrator.
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KEY OUTCOMES

- Sales growth of up to 46% measured during test period.
 - Messages at the queues the highest Impact Ratio scoring 28%, a significant improvement over an average of 1.02% Impact Ratio as measured in the GDES study.
 - Engagement with the messaging was very high, and overall shopper awareness of the messaging was recorded at 50%.
 - HyperSound[®] audio was proven to be successful with a broad age range of consumers ranging from 18 to over 65 years.
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SUMMARY

From the results obtained, there is clear evidence that the HyperSound solution will prove a valuable addition to the retailer's armoury within store. As a major new marketing tool it can provide the means for short impactful sales messages at the point of purchase. In so doing, it will help revise shopper behaviour by engaging customers, shaking them out of their subconscious state while shopping, and encouraging increased uptake of the relevant brands.

ABOUT HYPER SOUND[®] **BY TURTLE BEACH CORPORATION**

Turtle Beach Corporation (www.turtlebeachcorp.com) designs audio products for consumer, commercial and healthcare markets. Under the brand Turtle Beach (TurtleBeach.com), the company markets premium headsets for use with personal computers, mobile devices and video game consoles, including officially-licensed headsets for the next-generation Xbox One and PlayStation[®]4 consoles. Under the brand HyperSound[®] (HyperSound.com), the company markets pioneering directed audio solutions that have applications in digital signage and kiosks, consumer electronics and healthcare. The Company's shares are traded on the NASDAQ Exchange under the symbol NASDAQ:HEAR.

To learn more about HyperSound Audio Solutions visit <http://hypersound.com>



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