

Product Detail Page Conversion Optimization Experiments

Business Team presentation



Disclaimer

This presentation uses adjusted figures for confidentiality purposes.
Analytical approach and insights remain directionally accurate.

Agenda

- Problem statement:
 - Sticky Add-to-Cart on PDP
 - Photo Grid improvement on PDP
- Current Layout & Proposed Variations
- Hypothesis & Success metrics
- Test Design & Experiment Setup
- Results
- Conclusions
- Next Steps

Sticky Add-to-Cart on PDP

Sticky Add-to-Cart on PDP - Problem statement

Business context

- Product Detail Pages (PDPs) drive 70% of traffic, but only 4% of visitors add-to-cart
- Improving on-page conversion is a priority to unlock incremental revenue without additional spend

Leadership question

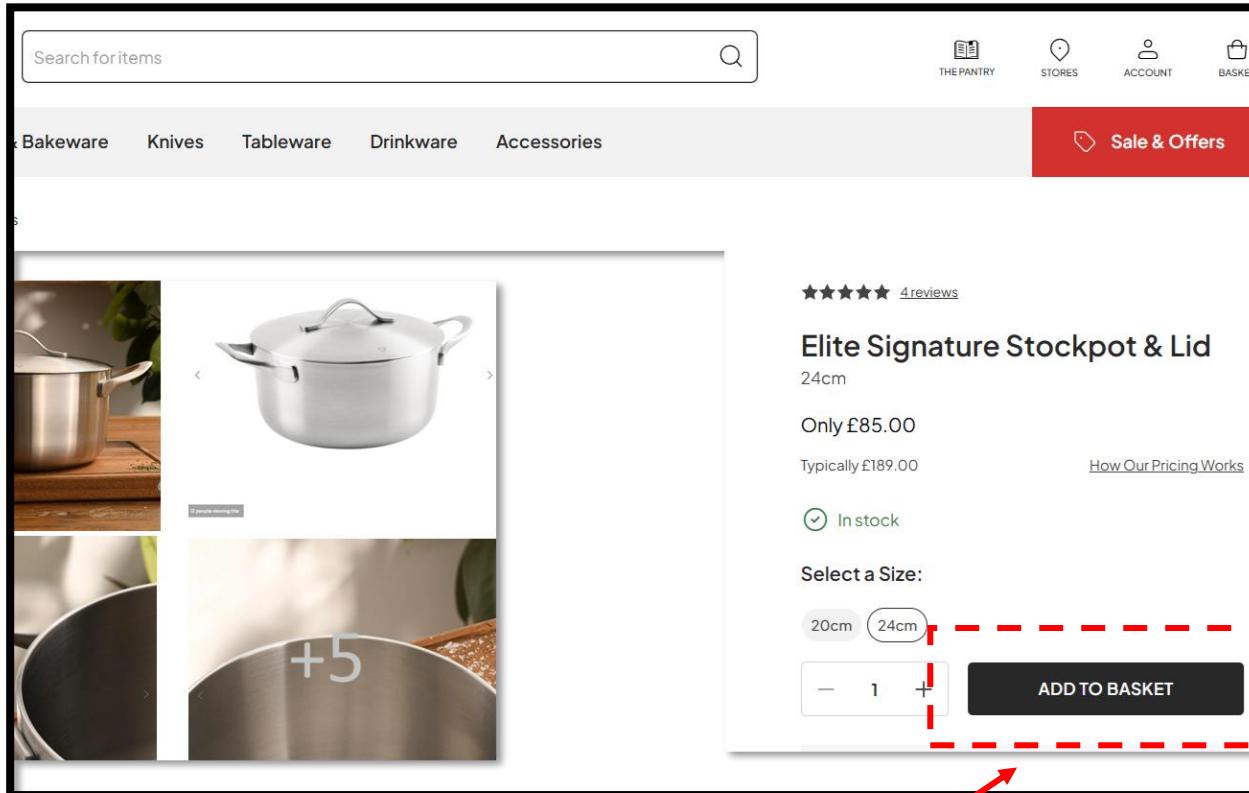
- Does making the add-to-cart (ATC) button persistently visible reduce purchase friction and increase add-to-cart conversion on PDPs?

Decisions to be made

- Should we roll out a sticky add-to-cart component across PDPs?
- Should it be deployed universally or targeted to specific devices?

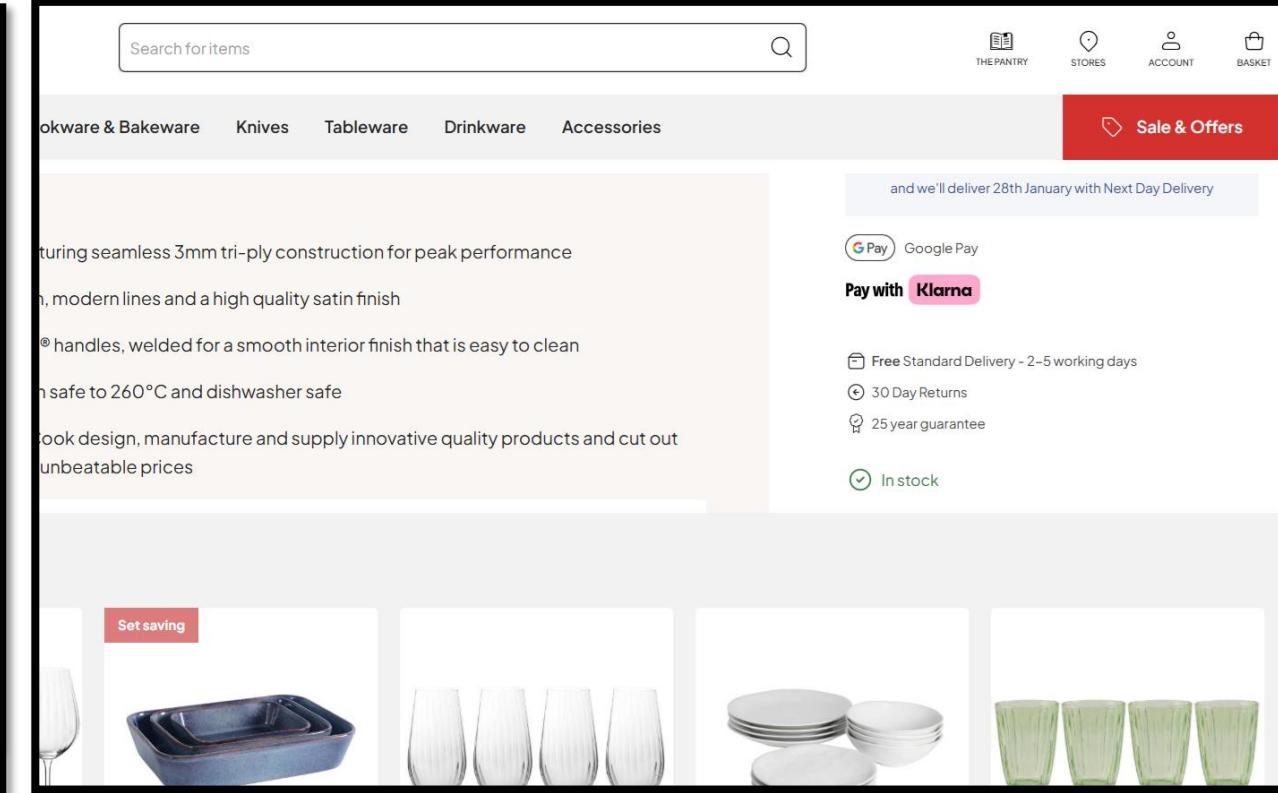
Sticky Add-to-Cart on PDP – Current Layout

View on Page Load



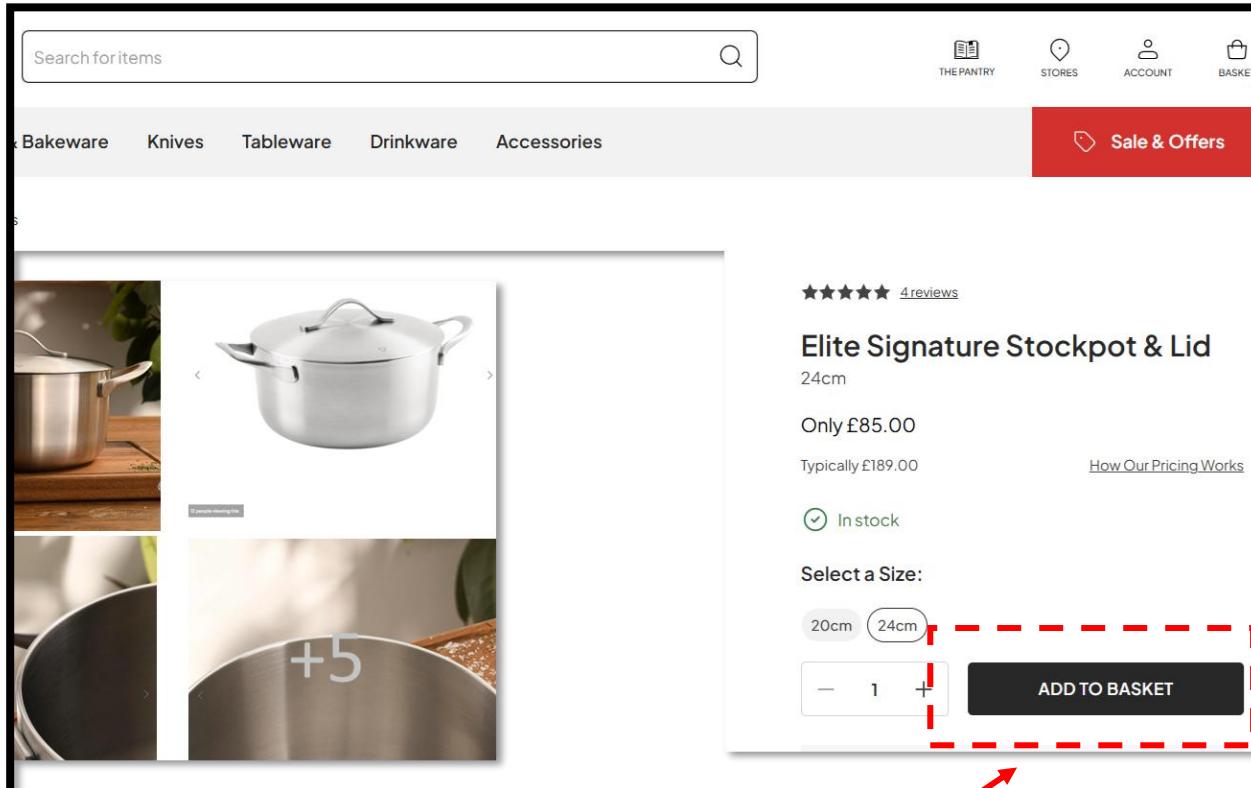
ATC is visible

View after Scrolling



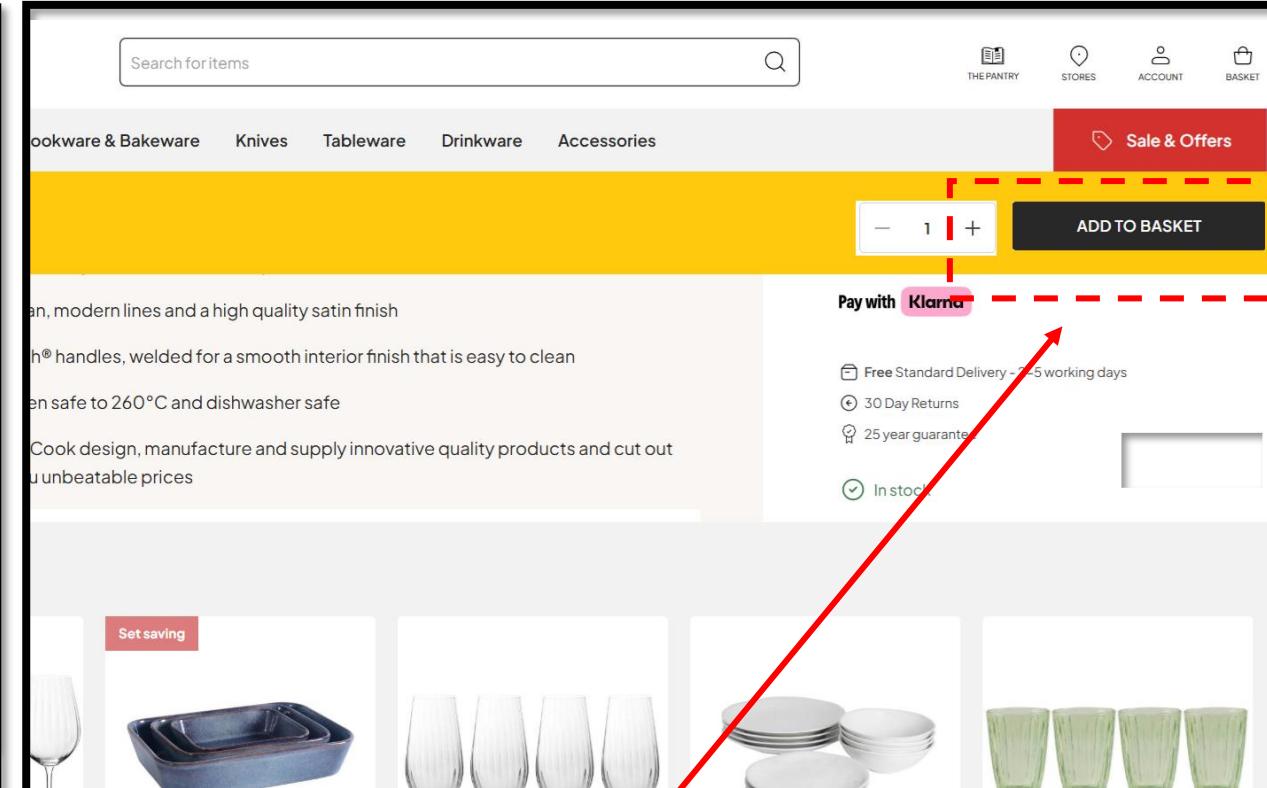
Sticky Add-to-Cart on PDP – Proposed Layout

View on Page Load



ATC is visible

View after Scrolling



ATC is visible

Sticky Add-to-Cart on PDP – Hypothesis & Success metrics

Hypothesis

Making the add-to-cart CTA persistently visible on PDPs will increase add-to-cart conversion by reducing purchase friction, without negatively impacting user experience

Key metric

- PDP visit to ATC conversion

Secondary metrics

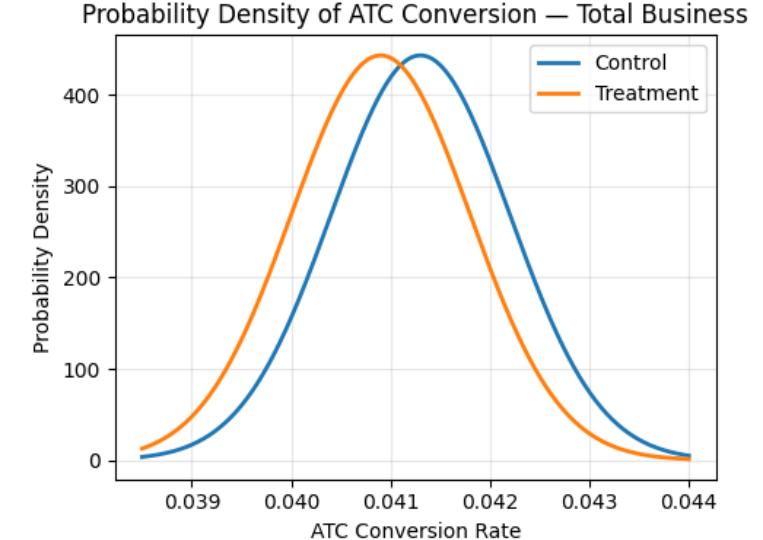
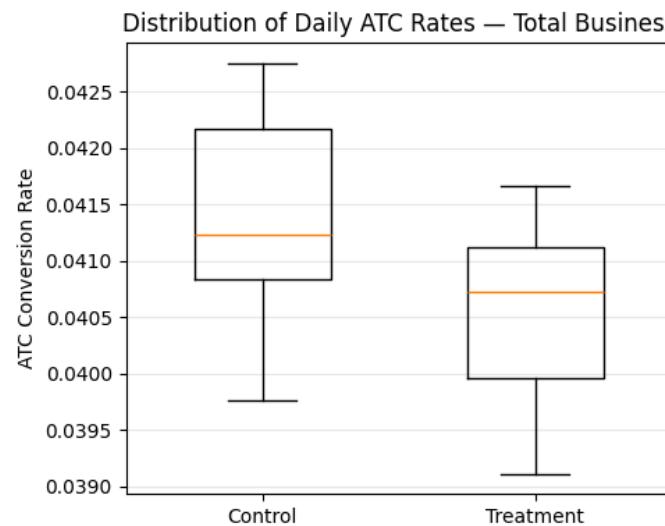
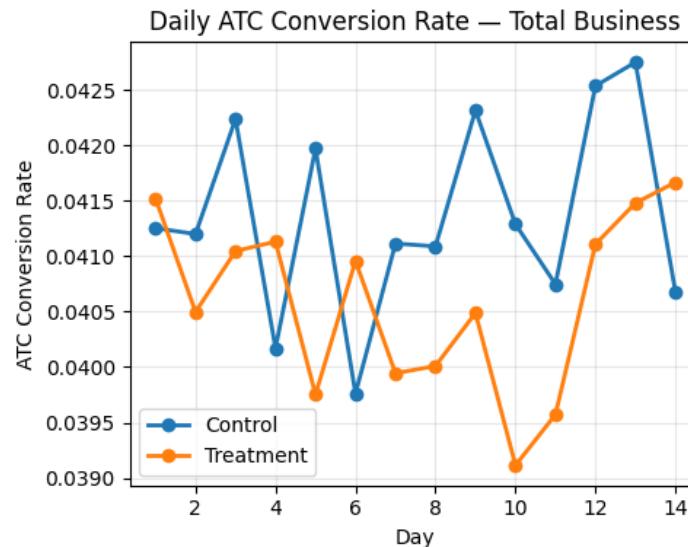
- PDP ATC to Order conversion
- PDP Exit rate
- PDP Scroll rate

Sticky Add-to-Cart on PDP – Test Design & Experiment Setup

Dimension		Description
Experiment Type		Randomized A/B test (Control vs Treatment)
Statistical Test		Two-proportion z-test
Variants	Control (C)	ATC visible on page load but scrolls out of view
	Treatment (T1)	Sticky ATC CTA while scrolling
Primary Metric		Add-to-Cart Conversion Rate
Randomization Unit		Session-level
Traffic Split		50% Control / 50% Treatment
Test URL		www.thecompany.com/stainless_steel_pot/SKU-123.com
Test Duration		14 days

Sticky Add-to-Cart on PDP – Results

Variation	Visits	ATC Clicks	ATC rate	Improvement	Confidence Interval	p-value
Control	32,812	1,354	4.13%	Baseline	Baseline	Baseline
Treatment 1	31,575	1,252	3.97%	-0.16 pp	[-0.34pp, +0.02pp]	0.07
Total	64,387	2,606	4.05%			



While not statistically significant, Sticky ATC directionally underperformed Control

Sticky Add-to-Cart on PDP – Results

Device	Variation	Visits	ATC Clicks	ATC Rate	Improvement	Confidence Interval	p-value
Mobile	Control	22,968	953	4.15%	Baseline	Baseline	Baseline
Mobile	Treatment 1	22,102	849	3.84%	-0.31 pp	[-0.55pp, -0.07pp]	0.01
Mobile Total		45,070	1,802	4.00%			

Device	Variation	Visits	ATC Clicks	ATC Rate	Improvement	Confidence Interval	p-value
Desktop	Control	9,844	401	4.07%	Baseline	Baseline	Baseline
Desktop	Treatment 1	9,473	403	4.27%	+0.20 pp	[-0.35pp, +0.75pp]	0.31
Desktop Total		19,317	804	4.16%			

Sticky ATC delivered a small, non-significant uplift on Desktop but caused a statistically significant decline on mobile

Sticky Add-to-Cart on PDP – Conclusions

- While desktop users showed a small directional uplift, mobile users, who represent ~60% of traffic, experienced a significant decline in add-to-cart rate
- On Mobile, users seem to value a clean, unobstructed PDP view. The persistent ATC reduced visual clarity and was likely perceived as intrusive or distracting
- It is not recommended to roll out Sticky ATC globally. Prioritize mobile-first PDP clarity and explore alternative friction-reduction patterns that preserve content visibility.

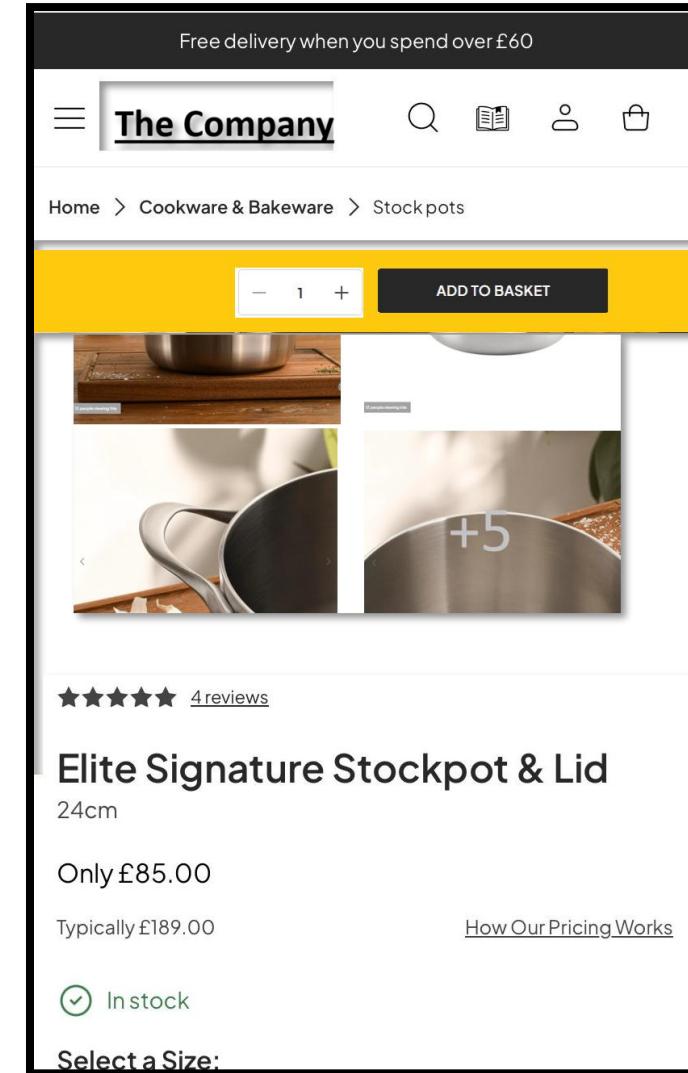


Photo Grid improvement on PDP

Photo Grid improvement on PDP - Problem statement

Business context

- PDP photo grid is one of the primary ways users evaluate quality, usage, and fit.
- Low ATC rates suggest users may still lack clarity or confidence, highlighting an opportunity to strengthen product storytelling through imagery.

Leadership question

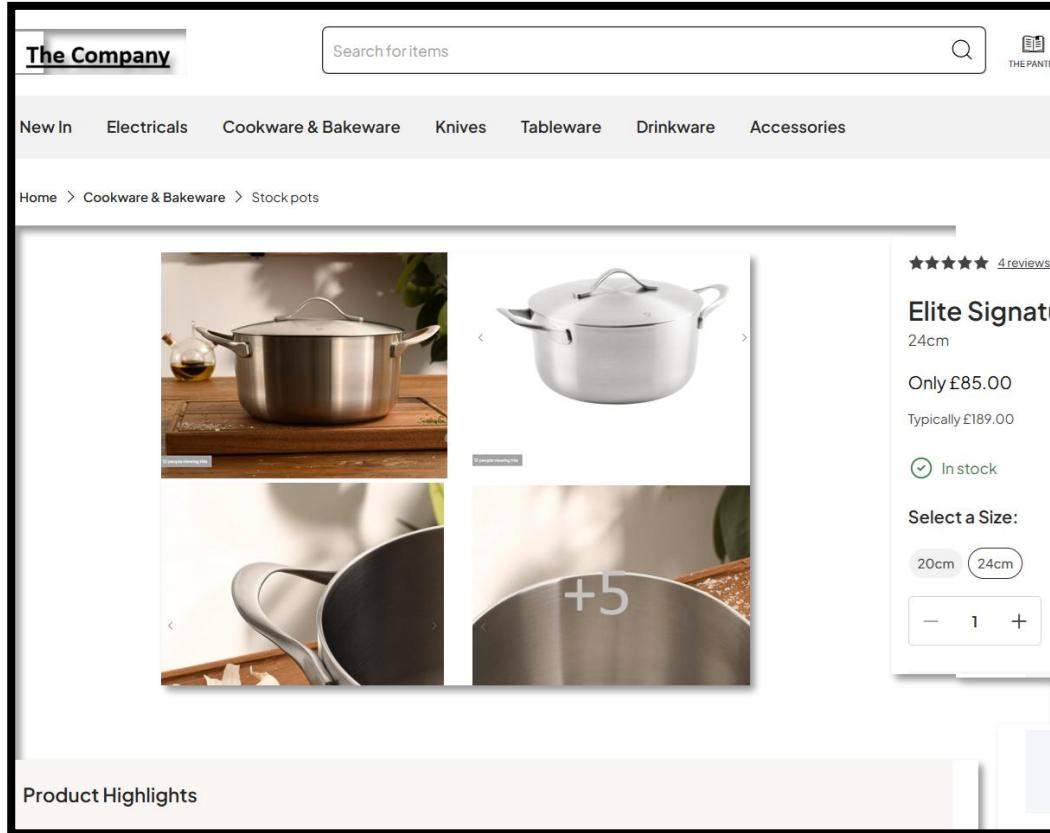
- Can improving the PDP photo grid increase add-to-cart conversion by improving product understanding and customer confidence?

Decisions to be made

- Should the layout of the PDP photo grid be changed?
- Should specialty videos be added to the PDP photo grid?

Photo Grid improvement on PDP – Layout

Current Layout



Option A: Hero-first Photo Grid

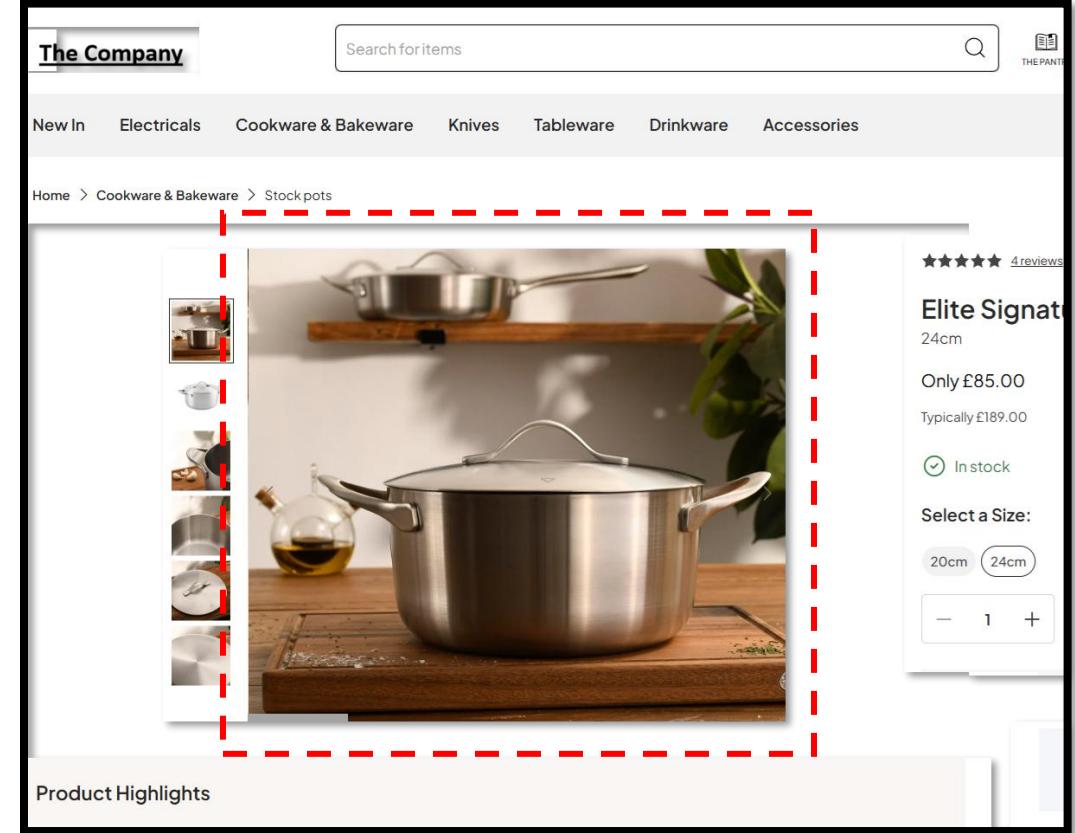
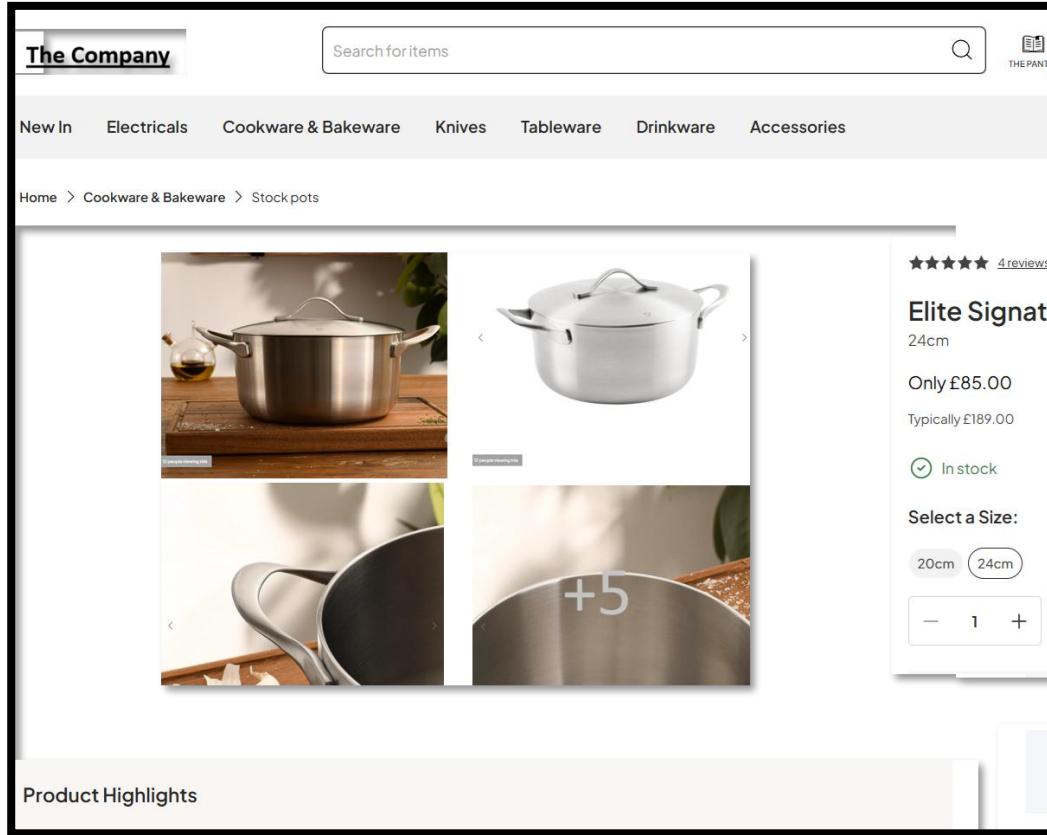


Photo Grid improvement on PDP – Layout

Current Layout



Option B: Video-enhanced Photo Grid

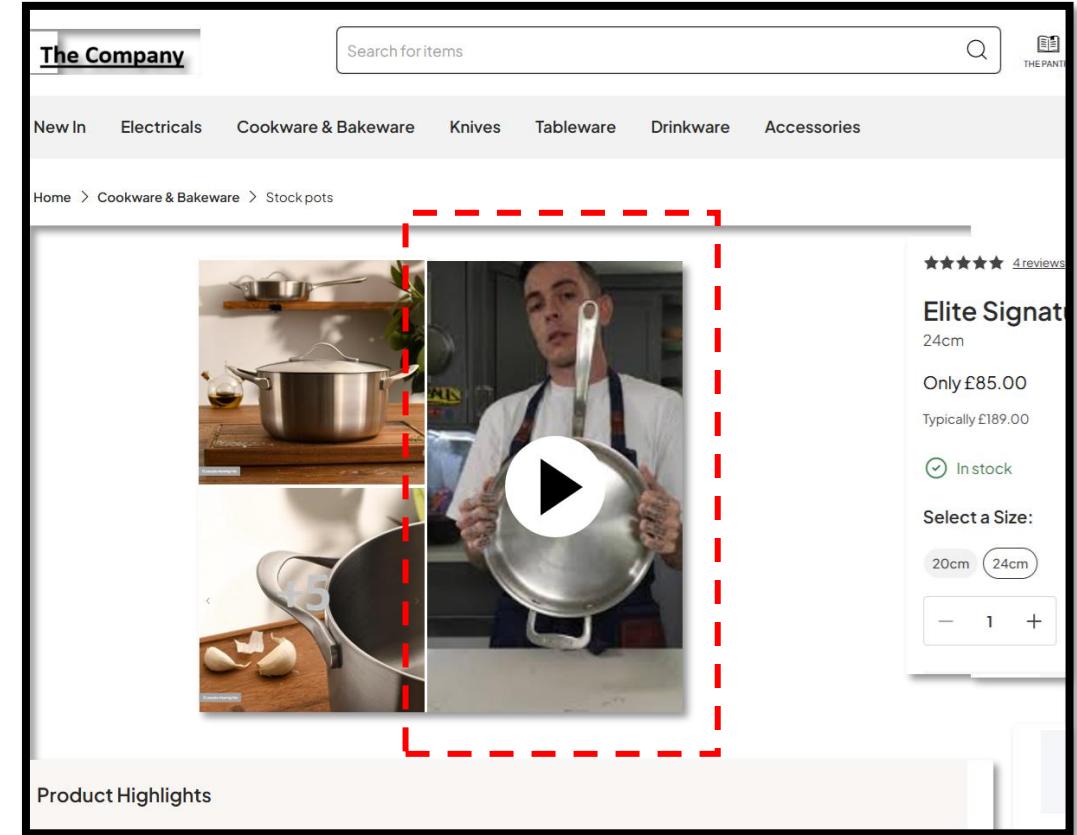


Photo Grid improvement on PDP – Hypothesis & Success metrics

Hypothesis

Improving the PDP photo grid by enhancing visual hierarchy and incorporating rich media will increase add-to-cart conversion by improving product understanding and customer confidence

Key metric

- PDP visit to ATC conversion

Secondary metrics

- PDP ATC to Order conversion
- PDP Photo Grid Click rate
- PDP Page Load time

Photo Grid improvement on PDP – Test Design & Experiment Setup

Dimension	Description
Experiment Type	Randomized A/B/n test (3-arm): 1 Control + 2 Treatment variants
Statistical Test	Chi-square test to verify difference among Variants Pairwise two-proportion z-tests vs Control
Variants	Control (C)
	Treatment 1 (T1)
	Treatment 2 (T2)
Primary Metric	Add-to-Cart Conversion Rate
Randomization Unit	Session-level
Traffic Split	Even split (33.33% each)
Test URL	www.thecompany.com/stainless_steel_pot/SKU-123.com
Test Duration	14 days

Photo Grid improvement on PDP – Results

Variation	Visits	ATC Clicks	ATC rate	Improvement	Confidence Interval	p-value
Control (C)	18,200	728	4.00%	Baseline	Baseline	Baseline
Hero-first (T1)	18,050	836	4.63%	+0.63 pp	[+0.28pp, +0.98pp]	0.002
Video (T2)	18,120	765	4.22%	+0.22 pp	[-0.12pp, +0.56pp]	0.18
Total	54,370	2,329	4.28%			

- Hero-first Photo Grid shows a strong and significant lift in the add-to-cart conversion
- Video-enhanced Photo Grid presents a non-statistically significant improvement on add-to-cart

Photo Grid improvement on PDP – Economic Impact

Metric	Baseline	Video-Enhanced
Monthly PDP visits	300,000	300,000
Number of PDPs	20,000	20,000
ATC rate	4.00%	4.22%
Add-to-Carts	12,000	12,660
ATC → Order conversion	20%	20%
Orders	2,400	2,532
Incremental orders	—	132
Avg. Margin per order	\$40	\$40
Monthly margin	\$96,000	\$101,280
Incremental monthly margin	—	\$5,280
Video production cost per PDP	—	\$250
ROI assessment	—	Not economically viable at scale
Max Video rollout	—	20 PDPs

Video-enhanced Photo Grid is not Economically viable at scale

Photo Grid improvement on PDP – Conclusions

- Prioritizing the Hero image at first view led to a meaningful lift in add-to-cart, suggesting shoppers benefit from immediate product clarity before engaging with additional content
- While Video-enhanced Photo Grid drove a modest directional lift in add-to-cart, the impact was not significant, suggesting video adds value for some shoppers only
- The Video variant created incremental value, but not enough to justify scaling across all PDPs. Based on the observed lift, we can produce 20 videos per month and remain ROI-neutral

Next Steps

- Explore alternative sticky ATC layouts that maintain visibility without crowding key content
- Explore additional PDP optimizations like:
 - PWA-friendly environments,
 - Enhanced image resolution,
 - or AI-generated visuals for SKUs with limited photography
- Test with placing ATC options in sections like "You May Also Like," "Recently Viewed," aiming to capture intent at different scroll depths and decision moments

Thank You!