

FITNESS & WELLNESS · PUSH TIMING PER HABIT PATTERN

Habit

Push timing per habit pattern

CUSTOMER

Series-C subscription fitness app ·
~\$48M ARR

PERIOD

Feb – Apr 2026 (90 days)

SAMPLE

2,431,580 push-opted active users

EXPERIMENT AUDITED

Workout-reminder push · 6 p.m. (control) vs 7 a.m. (variant)

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1 · WHAT THEIR TEAM REPORTED

METRIC	6 P.M.	7 A.M.
Session-completion (24h)	18.2%	19.0%
p-value	–	0.04

Team report: "ship 7 a.m. globally," Variant rolled out to 100 %.

2 · OUR RE-ANALYSIS · DOUBLY-ROBUST + PER-SEGMENT CATE

COHORT (IMPLICIT WINDOW)	DR ESTIMATE	95% CI	ESS	VERDICT	\$ IMPACT / YR
All users	+2.1% rel.	[+0.5, +3.7]	0.62	small positive – confirms t-test	–
Pre-dawn (5–7 a.m.)	+9.7% rel.	[+5.8, +13.6]	0.53	strong positive	+\$1.4M (ship)
Morning (7–9 a.m.)	+6.4% rel.	[+3.1, +9.8]	0.51	positive	+\$1.0M (ship)
Lunchtime (11 a.m. – 2 p.m.)	+0.4% rel.	[–2.8, +3.6]	0.46	inconclusive	–
Evening (5–8 p.m.)	–3.2% rel.	[–6.7, –0.1]	0.42	clear negative – 7 a.m. wrong for them	+\$1.4M (suppress)
Late-evening (8 p.m.+)	–5.8% rel.	[–10.1, –1.4]	0.34	overlap-limited; flag	– (re-test)

3 · THE HIDDEN COHORT EFFECT

The 7 a.m. shipment is destroying engagement on ~31 % of the user base – the evening-window cohort. The global average reads positive only because the morning cohort is 4× the size.

4 · WHAT WE'D RECOMMEND

Replace the fixed-time push with a contextual-bandit policy keyed on the user's implicit exercise window.

PROJECTED ANNUALISED IMPACT

+22 % session-completion on positive cohorts ·
~\$3.8M / yr LTV uplift

Estimates use 1,000-bootstrap doubly-robust evaluation against the customer's logged data with propensities reconstructed from the experiment configuration. ESS < n/10 cells are flagged overlap-limited and not used in the recommendation. The customer can reproduce these numbers on their own logs using `offpolicy.py` (MIT-licensed). Numbers in this report are fictive, generated as a worked example – not derived from real customer data.