CREATIVE AI WORKS

# ROAS & CPA results Q3 2021

A performance analysis
of AI-generated creative
in Facebook Ads

p-e-n-c-i-l

# Summary

## How likely am I to improve my ad performance with Pencil?

### 78%

Brands using Pencil were able to find a **ROAS** "winner" using AI-generated ad ideas

### 85%

Brands using Pencil were able to find a **CPA** "winner" using AI-generated ad ideas

## How much can Pencil improve my ad performance?

### +79%

Pencil AI-generated "winners" got on average +79% higher **ROAS** vs. brand baselines

### -48%

Pencil AI-generated "winners" got on average -48% lower **CPA** vs. brand baselines

## How long does it take to improve my ad performance with Pencil?

### ~10 ads

Brands who ran 10 or more Pencil ads were typically able to find "winners" that performed +100% higher than ROAS baselines and -50% lower than CPA baselines.

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https://studio.trypencil.com/signup

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**Pencil ROAS & CPA results**

**Getting results with Pencil**

In this report, we'll share some high level findings of running Pencil ads against "whatever creative brands were already using" in their Facebook Ad Accounts.

This study was conducted across 60+ brands using Pencil between November 2020 and July 2021. We considered 650+ Pencil ads that spent at least $100 on Facebook.

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**A note on "winners."** We refer to and prioritise findings related to "winners" rather than averages. "Winner" ads perform above a brand's average performance baseline in their account. As ads that perform poorly are simply shut off, finding "winners" is a far more important measure of success to performance marketers than averages.

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# 1. Introduction

Pencil uses AI to automatically generate ads that:

1. **Are inspired by a human brief** including branding, assets and copy
2. **Are predicted to perform** based on a brand's past results

As advertising becomes ever more digital and measurable, brands must find ads that "work" and deliver results on a hard metric like return-on-ad-spend (ROAS) or cost-per-action (CPA). It's tempting to focus on designing beautiful branded ads, but if they fail to resonate with customers and deliver revenue, it can be a huge waste of time, money and emotional energy.

Any performance marketer will tell you that most ads they run fail. As a result, the digital marketing game is increasingly about discovering "winners" - ads which perform better than baseline. All other ads are simply experiments to discover "winners". Any ad that is not a "winner" is turned off quickly to avoid wasting spend.

Pencil offers marketers an efficient way to achieve these goals by generating "winner" ads quickly and at low cost. We believe that most ads will be made this way in the future. It to work for 2 big reasons:

1. **Pencil takes the fundamental first principle of advertising effectiveness - testing - and vastly accelerates it.** Testing consistently delivers better results. Facebook's own meta-analysis of 163 campaigns in December 2019 found that testing-and-learning delivered 26% lower costs-per-action than not. Many brands simply miss this opportunity because it's expensive and slow to create enough ads to do good testing. Pencil makes it possible to test more simply because it's so low cost and so fast.

- ○ **Pencil ads are cheaper to make.** At $15 per ad, Pencil is cheaper than working with a human creative agency, freelancer or even using UGC which typically cost hundreds or even thousands of dollars per ad.
- ○ **Pencil ads are faster to make.** At approx. 1 minute per ad generation time, it outpaces human methods, which take days or weeks.
- ○ **As a bonus, Pencil ads are also diverse by design.** It's tough for a human to come up with totally different ways of selling a product on demand, but easy for a machine. This makes testing Pencil ads far more likely to find you a winner than human ads.

2. **Pencil introduces machine-learning based predictions to the creative process.** This is the real game changer, and what the people come for. Algorithms not only generate ads, but generate ads predicted to work based on what's worked before. Pencil's deep learning models analyse historic ads and their results down to the pixel level, and offer a prediction for each new generated ad idea for a given objective, targeting and metric. Predictions are of 3 types:
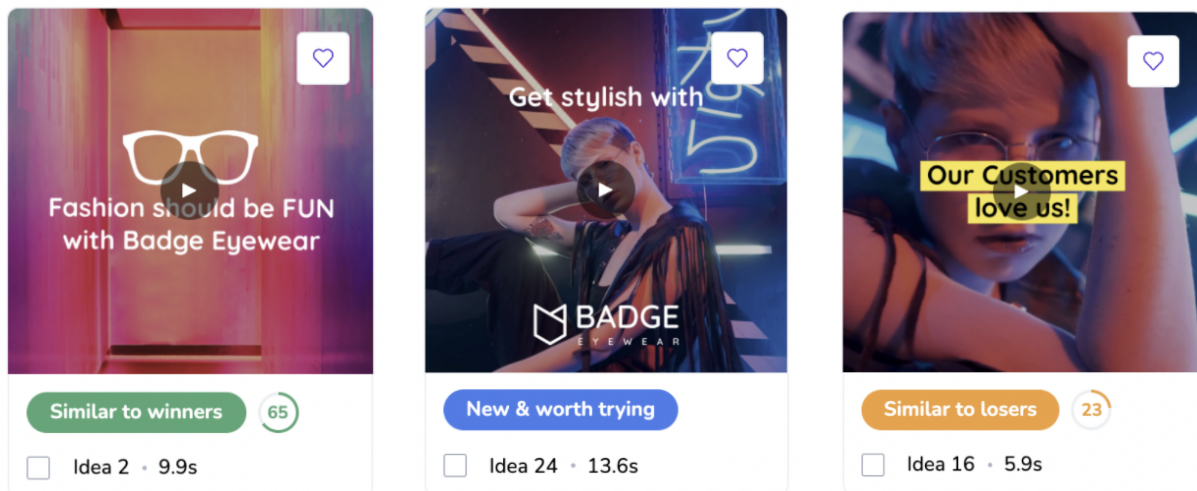


| | | |
|---|---|---|
| The generated idea is similar to ads that have worked in the past → **Run it now!** | The generated ad idea is different to everything you've run in the past → **Try it now!** | The generated ad idea is similar to ads that have NOT worked → **Don't run it now...** |

# 2. Findings

1. **You can double ROAS performance with AI-generated ads.** 1 in 3 brands were able to increase ROAS by 100% or more. Pencil AI-generated "winners" performed +79% higher than ROAS baselines on average. One brand was able to 7x ROAS.

2. **You can halve CPA with AI-generated ads.** Pencil AI-generated "winners" performed -47% lower than CPA baselines on average. Furthermore, 2 in 3 brands were able to reduce CPAs by more than 50%.

3. **Most brands using Pencil were able to find "winners" regardless of level of spend.** 78% of brands found ROAS "winners" and 85% found CPA "winners". More spend helps find winners faster.

4. **The more ads you run, the more likely you are to find "winners" and the bigger those "winners" will be.** Brands which ran at least 10 AI-generated ads were typically able to find winners that beat ROAS baselines by 100% and CPA baselines by 50%. By the time you get to 50 ads, your "winners" are closer to beating ROAS baselines by 200% and CPA baselines by 90%. There are almost no exceptions to this finding.

5. **Pencil is able to generate "winners" at all stages of the funnel, including Acquisition, Retargeting and Retention.** That said, more signal and better targeting (as in retargeting & retention campaigns) helps find "winners" faster... up to 30% more customers found winners by running AI-generated ads in their retention campaigns compared to acquisition.

6. **Pencil is able to generate "winners" across a broad range of sectors.** This analysis included Consumer Goods, Cosmetics, Fashion, Food & Beverage, Pharmaceuticals, SaaS and Services. "Winners" were especially evident in Pharmaceuticals, Food & Beverage and Cosmetics.

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# 3. Data

*All sources: Facebook Marketing API, November 2020 - July 2021, spend >$100/ad*

### Figure 1: Overall Pencil uplift vs. baselines

|  | Pencil ROAS vs. baseline | Pencil CPA vs. baseline |
|---|---|---|
| "Winner" Pencil ads | +79.2% | -47.5% |

### Figure 2: % Brands who found a Pencil uplift vs. baselines

|  | % Brands with Pencil ROAS above baseline | % Brands with Pencil CPA below baseline |
|---|---|---|
| "Winner" Pencil ads | 78% | 85% |

### Figure 3: Pencil "winner" uplift vs. baselines by funnel stage

|  | Pencil ROAS "winner" vs. baseline | Pencil CPA "winner" vs. baseline |
|---|---|---|
| Acquisition | +58% | -35% |
| Retargeting | +65% | -31% |
| Retention | +156% | -65% |

### Figure 4: % Brands who found a Pencil "winner" by funnel stage

|  | % Brands with Pencil ROAS "winner" above baseline | % Brands with Pencil CPA "winner" below baseline |
|---|---|---|
| Acquisition | 66% | 79% |
| Retargeting | 68% | 78% |
| Retention | 100% | 100% |

## Figure 5: Pencil ROAS results vs. baselines by sector

| Sector | Brands | Pencil ads | Pencil "winner" ROAS vs. baseline |
|---|---|---|---|
| Consumer Goods | 14 | 163 | +44% |
| Cosmetics | 7 | 100 | +73% |
| Fashion | 8 | 110 | +58% |
| Food & Beverage | 10 | 95 | +95% |
| Pharmaceuticals | 4 | 69 | +204% |
| SaaS | 4 | 21 | +54% |
| Services | 9 | 102 | +34% |

## Figure 6: Pencil CPA results vs. baselines by sector

| Sector | Brands | Pencil ads | Pencil "winner" CPA vs. baseline |
|---|---|---|---|
| Consumer Goods | 16 | 169 | -57% |
| Cosmetics | 7 | 103 | -67% |
| Fashion | 8 | 110 | -15% |
| Food & Beverage | 10 | 95 | -83% |
| Pharmaceuticals | 5 | 109 | -78% |
| SaaS | 8 | 46 | -81% |
| Services | 11 | 160 | -75% |

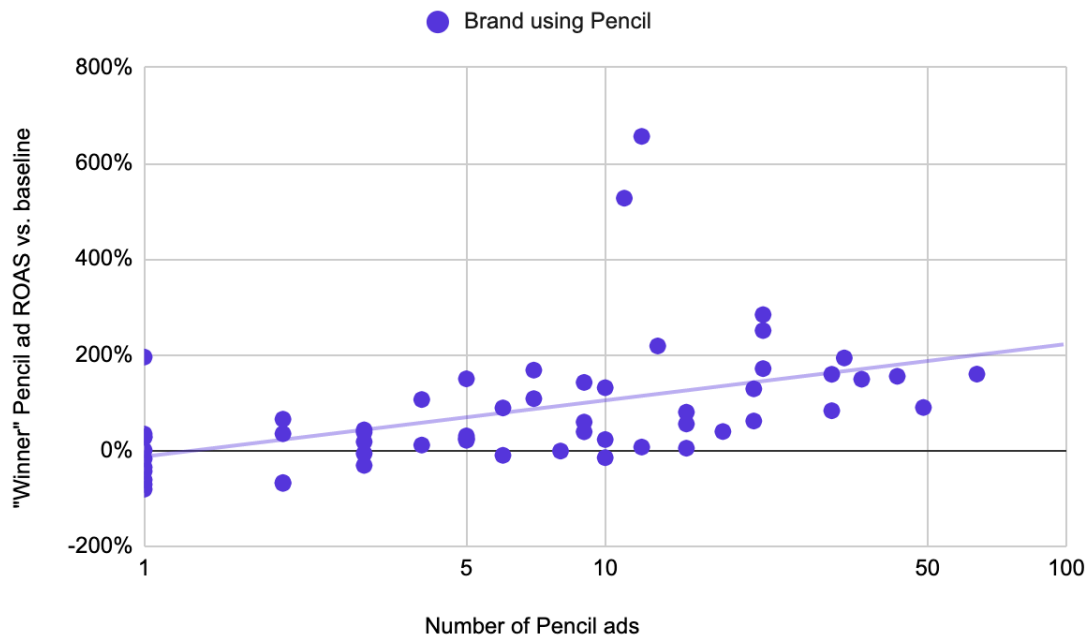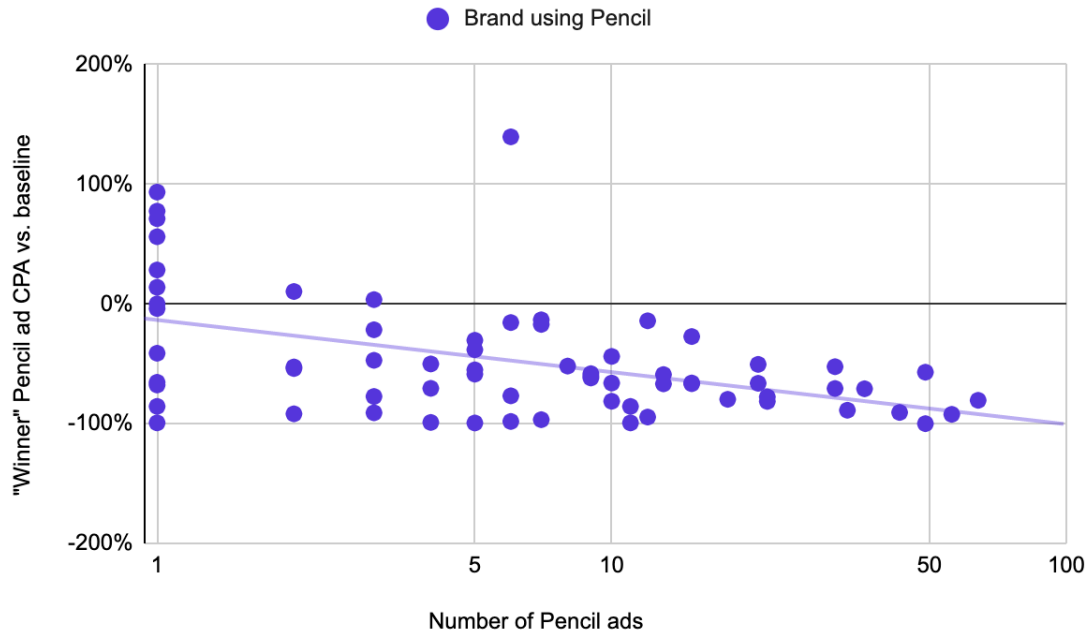## Figure 7: Number of Pencil ads run vs. Pencil ROAS "winner" uplift by brand



## Figure 8: Number of Pencil ads run vs. Pencil CPA "winner" uplift by brand

# 4. A case study by [Plum Deluxe](#)

It's about tea, but not as you know it - Plum Deluxe is about shared experiences, conversation, trading community jokes, and mainly taking people from different social and economic spectrums and bringing them together with one unique interest, to create a community of people who all have one thing in common - tea.

# 2x
ROAS vs. baseline

Andy Hayes, CEO and Founder of Plum Deluxe, took a chance on Pencil and let AI work its magic - and the results speak for themselves. Here's how he and his team came up with their "winner"...

*"As we have a lot of SKUs, we tend to mostly produce lifestyle photography, as that is the most multi-purpose for us. We use Pencil to quickly generate video designs that include a variety of photography overlaid with text, and the occasional video reel thrown in.  We also combine hand-manipulated text with AI generated headlines.*
*Doing this, we've achieved a ROAS double the typical ROAS."*

**Figure 9: Storyboard of AI-generated "winner" for Plum Deluxe**



He adds, "when looking to quickly iterate on video design concepts, Pencil saves us time and presents options we might not have thought of otherwise."

# 5. Frameworks for testing Creative AI

There are many different schools of thought about testing and iterating your Facebook Ads. Facebook publishes guidance here, and your FB account team can advise you on your specific use case.

One universal principle is that testing and learning outperforms everything else. A Facebook meta-analysis in 2019 suggested that testing & learning yielded a 26% lower CPA and 15% lower cost-per-recall across 163 campaigns. A Creative AI system like Pencil simply allows you to vastly accelerate testing & learning, which leads to better results over time.

**Framework 1: The "3Vs"**

At the highest level when testing & learning, you need some principles to follow. We are big believers in the "3Vs" of Volume, Variety and Velocity.

| Volume | Variety | Velocity |
|---|---|---|
| Run batches of 5-10 ads to test at a time. Statistically only 10% of ads are winners, so play the game. Run more. | Run ads that are different. If everything you run is the same, you can't expect winners. Be unafraid to test unusual approaches. | Run new batches of ads every 1 or 2 weeks. Your discipline will be rewarded. Don't let "losing" ads suck up your budget. |

## Framework 2: The 30-70 flywheel

Once you have your testing principles, the next thing you need is a rough idea of how to set up your testing structure, and how much of your resources you should allocate to testing vs. scaling. The 30-70 flywheel is a simple approach that's easy to understand.

**70% of budget**
Scale "winners"

**30% of budget**
Test for "winners"
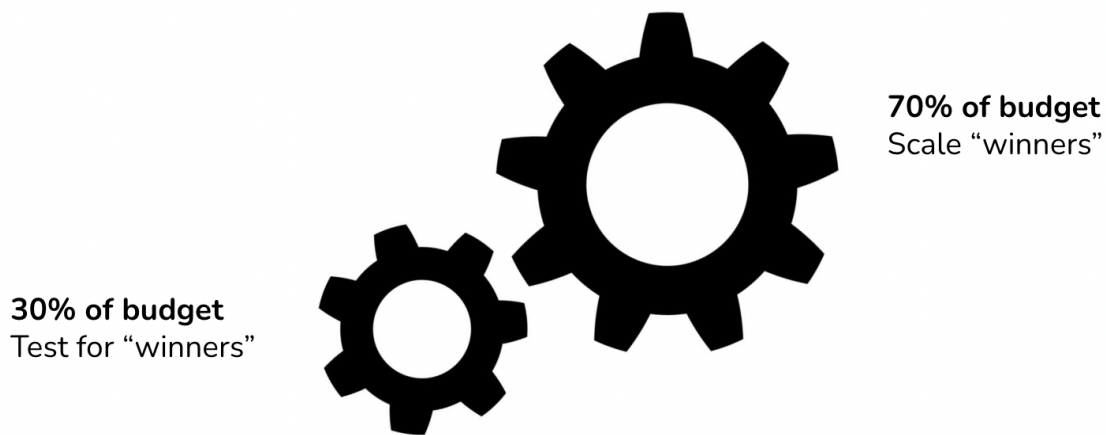
Here are some tips to consider when testing for "winners":

- **Test everything.** Consider Videos/Stills, Studio quality/UGC, Copy, Templates, Formats, Narratives etc. Pencil's Creative AI automatically helps do this by maximising the variety in the ads it generates from your assets
- **Launch test ads in a separate ad set** to guarantee ad spends without competition against evergreens
- **Test into Broad Audiences where possible**, so that winners will scale up spend for longer

And here are some tips to consider when scaling "winners":

- **Allow ad "winners" to scale** by launching into interest-based/LAL audiences
- **Aim to invest 30% of budget in always-on testing** and 70% on promoting your winning ads into your scaled structure, to see if they continue to scale alongside your stronger evergreen ads

## Framework 3: The Weekly Batch

Once you have your principles and structure, you'll need a routine. Connecting Pencil directly to your Facebook Ad Account allows the system to learn from your past results - it also allows the system to track your winners and losers for you. The key to success is taking action frequently by replacing your "losing" ads with new batches of ad ideas predicted to work well. Ideally, this would be a weekly routine.

### Framework 3: The Weekly Batch
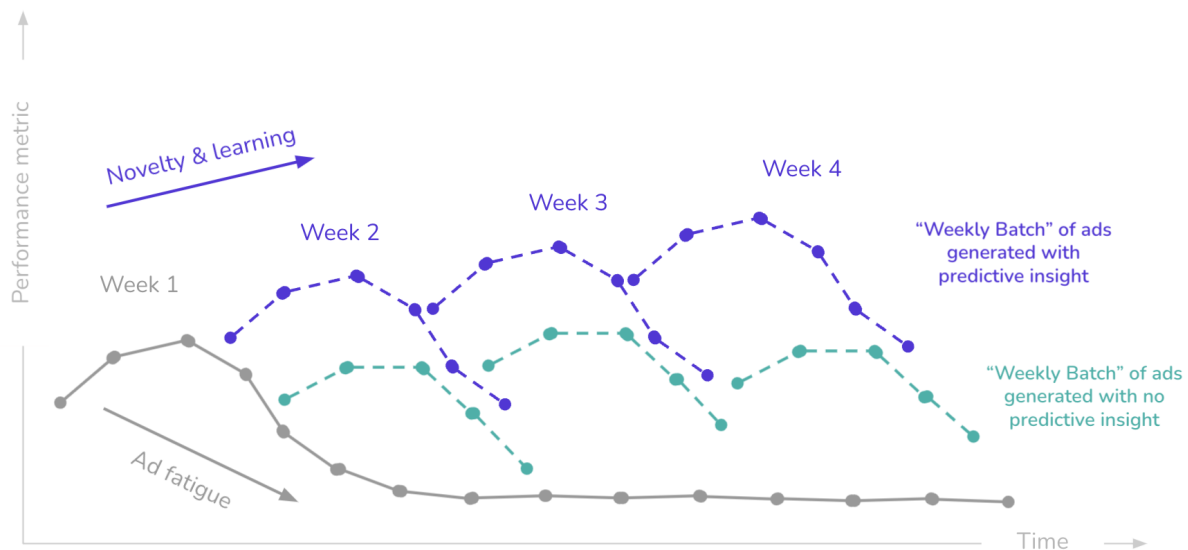


Running a weekly batch of new creative ad ideas has a double benefit:

1. **It minimises creative fatigue** by constantly keeping your ads fresh. All ads fatigue and the impact of this on overall account performance is often understated. Let's say you're spending $10,000 evenly over a month and you get a 3x ROAS in week 1 and a 1x ROAS in weeks 2-4. Your revenue from that spend is $15,000. But if you got a 3x ROAS consistently, your revenue would be $30,000. Almost nobody refreshes their creative often enough, and could be leaving a lot of growth on the table as a result.
2. **It maximizes learning** by constantly trying new ideas and allowing the AI to implement those learnings. This is the holy grail, where you can actually improve your results systematically over time.

## About [Pencil](#)

**Author:** [Will Hanschell](#), CEO Pencil

Pencil is a venture-backed Creative AI startup. Our platform is used by creatives and performance marketers to machine-generate ads that are predicted to get results. We are an early-stage team from both the technology (Google, Facebook, Uber) and creative (Iris, Dentsu) worlds. Our investors include Sequoia, Wavemaker Partners and Entrepreneur First.

## About [Plum Deluxe](#)

Plum Deluxe is the website that helps you create moments that matter. It's also the home of the best monthly tea subscription service. Plum Deluxe teas give you the best reasons to slow down, to do whatever it is you're going to do, whether that's reading your favorite book, writing a piece of prose, a goofy happy dance in the kitchen with your favorite cuppa, or simply staring out of a window. Teas that are punctuated by flavor, aroma, and taste help with whatever moments are ahead of you and make you feel better than you ever did before you poured the tea.

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