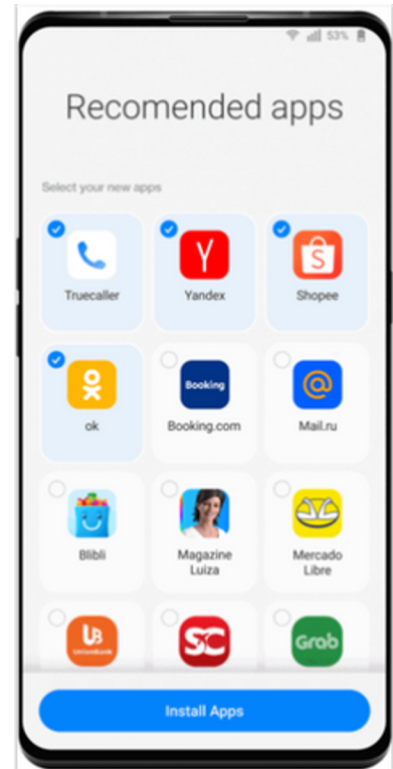


THE NEW ERA OF APP DISCOVERY

BEYOND APP STORES & SOCIAL ADS





EXECUTIVE SUMMARY

The global app economy has reached maturity, but app discovery has not evolved at the same pace. With millions of applications competing for attention, traditional acquisition channels such as app stores and social media advertising are increasingly expensive, saturated, and inefficient. Rising Cost Per Install (CPI), declining user trust, and privacy-driven signal loss are forcing brands to rethink how users discover and install apps.

App discovery is emerging as a next-generation growth channel. It enables applications to be discovered directly within OEM-controlled, on-device environments where users naturally explore and configure their smartphones. These trusted system-level placements allow brands to reach users at moments of high intent, resulting in higher-quality installs and stronger long-term engagement.

This white paper explores why traditional acquisition is failing and how app discovery is reshaping mobile growth strategies.

THE DECLINE OF TRADITIONAL APP ACQUISITION

Industry data shows that the average global Cost Per Install (CPI) for non-gaming apps increased by approximately 30–40% between 2021 and 2024, driven by inventory saturation and increased competition. In mature categories such as fintech and e-commerce, CPIs are often 2–3× higher than emerging categories.

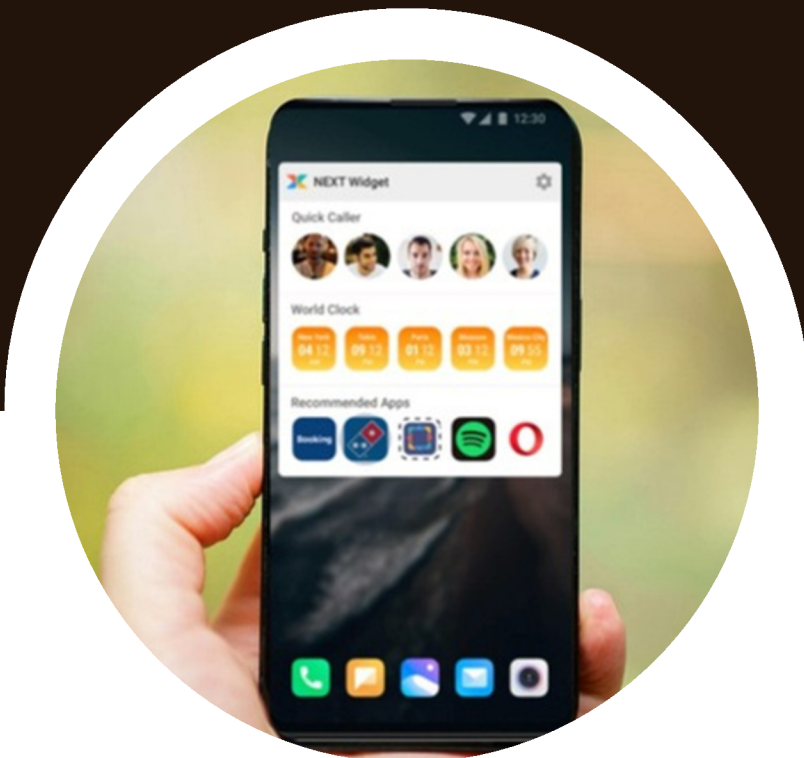
At the same time, post-install retention has weakened. Across major markets, fewer than 25% of users remain active after 30 days for the average consumer app, indicating that higher spend does not guarantee quality users.

Privacy regulations and platform-level restrictions have reduced deterministic tracking signals by more than 50% compared to pre-2021 benchmarks, limiting optimization accuracy and increasing wasted spend. Over the last decade, app acquisition has become heavily dependent on a small number of channels. App stores are overcrowded, ranking algorithms favor incumbents, and organic visibility has sharply declined. At the same time, social and in-app advertising has become increasingly competitive, driving up costs while reducing performance consistency.

Privacy regulations and platform-level restrictions have further reduced targeting precision and attribution reliability. As a result, marketers are paying more for installs that often show lower retention, weaker engagement, and higher fraud risk.



WHAT IS APP DISCOVERY?



App discovery refers to the promotion of applications within manufacturer-controlled device environments rather than third-party media platforms. These environments include native system placements such as device setup journeys, system app recommendations, curated folders, and OEM-owned notification surfaces.

Unlike traditional advertising, app discovery is embedded into the user's natural device experience. This creates contextual relevance and trust, allowing apps to be discovered as useful tools rather than intrusive advertisements.

OEM DISCOVERY

SURFACES EXPLAINED

OEM discovery surfaces are integrated directly into the smartphone operating system or manufacturer-managed layers. These include:

- Device onboarding and first-boot experiences
- Native app recommendation panels
- System-level widgets and folders
- Manufacturer-curated discovery hubs

These placements are non-intrusive, brand-safe, and inaccessible through standard ad networks, making them a premium acquisition channel.



WHY APP DISCOVERY DELIVERS HIGHER INTENT

App discovery enables applications to be discovered within OEM-controlled, on-device environments, where users naturally explore and personalize their devices. Unlike traditional advertising, discovery occurs at moments of genuine intent, resulting in higher-quality installs and stronger post-install engagement.

WHAT DRIVES HIGHER INTENT

The largest contributor is **system-level trust (30%)**.

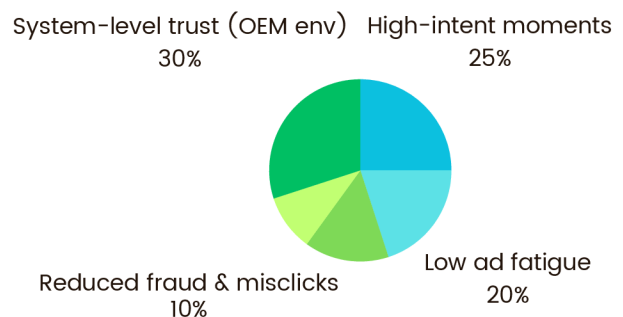
Recommendations delivered by device manufacturers benefit from inherent credibility, increasing user confidence and install completion.

High-intent moments (25%), such as device setup and native system exploration, further enhance willingness to install, as users are actively seeking useful apps.

The **non-intrusive nature of on-device placements (20%)** reduces ad fatigue and accidental clicks, ensuring installs are more deliberate.

Contextual relevance (15%), driven by device type and usage signals, improves perceived usefulness. Finally, **reduced fraud and misclicks (10%)** result from closed OEM ecosystems, delivering cleaner, more genuine traffic.

Together, these factors explain why app discovery consistently delivers **higher retention, better onboarding completion, and stronger long-term engagement** compared to traditional acquisition channels.



OUTCOME FOR APP OWNER

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KEY TAKEAWAYS

TRADITIONAL ACQUISITION CHANNELS ARE REACHING EFFICIENCY LIMITS

App acquisition through app stores, social media, and open ad exchanges has become increasingly competitive and cost-intensive. As more advertisers compete for the same audiences, Cost Per Install continues to rise while user quality and retention remain inconsistent. At the same time, privacy changes and signal loss have reduced targeting accuracy and measurement clarity, limiting optimization potential. These structural constraints make it difficult for brands to scale efficiently using traditional channels alone, especially in regulated or performance-sensitive categories.

APP DISCOVERY INTRODUCES A TRUSTED, INTENT-DRIVEN ALTERNATIVE

App discovery shifts acquisition from interruptive advertising to contextual recommendation. By embedding discovery within OEM-controlled, system-level environments, applications are introduced at moments when users are actively engaging with their devices. This trusted, native approach increases install confidence, reduces ad fatigue, and delivers users with stronger onboarding completion and early retention. As a result, app discovery aligns acquisition spend more closely with genuine user intent and long-term value.

OEM ENVIRONMENTS UNLOCK PREMIUM, UNDERUTILIZED INVENTORY

OEM discovery surfaces represent high-quality digital real estate that remains largely inaccessible through traditional ad buying platforms. These placements exist across device setup flows, native recommendation modules, and daily system interactions—touchpoints that are both frequent and highly contextual. Because this inventory is limited, brand-safe, and tightly controlled, it delivers more consistent performance with lower exposure to fraud. For advertisers, OEM environments offer a scalable yet underutilized channel to reach users before attention is fragmented elsewhere.

COMMERCIAL MODEL

Carbondyne delivers app discovery solutions across OEM networks through a partner-powered platform.

It operates on a performance-based commercial structure. Campaigns are priced on a Cost Per Install (CPI) or cost-per-conversion basis, with billing applied only on verified installs tracked through independent Mobile Measurement Platforms (MMPs). The commercial scope includes OEM media delivery, on-device placements, campaign optimization, attribution, fraud control, and reporting—ensuring advertisers pay strictly for measurable outcomes.

CARBONDYNE OVERVIEW

Carbondyne is a technology-driven digital infrastructure company enabling growth across app discovery, digital commerce, connectivity, and sustainability solutions. The company builds and operates platforms that help enterprises, banks, fintechs, telcos, and digital brands scale adoption, engagement, and monetization across emerging and global markets.

With operations across the UK, Asia, and emerging markets, Carbondyne combines partner-powered technology, managed execution, and performance-led commercial models to deliver measurable, compliant, and scalable outcomes.

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