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УПРАВЛІННЯ МОНЕТИЗАЦІЄЮ ТА РОЗВИТКОМ: ПРАКТИЧНІ РЕКОМЕНДАЦІЇ ДЛЯ ВЛАСНИКІВ МОБІЛЬНИХ ДОДАТКІВ ЩОДО СТРАТЕГІЙ ЇХ ПРОСУВАННЯ ТА ПЕРЕХОДУ НА FREEMIUM-МОДЕЛЬ

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MANAGING MONETIZATION AND GROWTH: INSIGHTS FOR MOBILE APP OWNERS ON FREEMIUM TRANSITION AND PROMOTION

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Анотація. *У дослідженні розглянуто стратегії управління та просування мобільних додатків із фокусом на вплив змін моделі монетизації та використання мотивованого трафіку на видимість у магазині додатків, органічне зростання та ефективність кампаній із залучення користувачів. Основою є практичне дослідження на прикладі авторського iOS додатку "WordFace", який спочатку поширювався за фіксованою ціною, а згодом перейшов на модель безкоштовного завантаження з підпискою в додатку. Метою є виявлення змін у вартості залучення користувачів, показниках конверсії та загальній рентабельності. Методологічно дослідження поєднує реальні дані рекламних кампаній з галузевими бенчмарками та аналітикою діджитал платформ (SplitMetrics, RevenueCat, Adapty).*

Результати показали, що перехід на freemium-модель значно знизив вартість встановлення та підвищив коефіцієнт конверсії з переглядів у встановлення. Водночас нова модель монетизації вимагала вдосконалених онбордингу (привітальних екранів додатку) та воронки підписок для конвертації безкоштовних користувачів у платних. Було впроваджено структурований процес ознайомлення з продуктом і триденну безкоштовну пробну підписку, що дало змогу збільшити кількість запусків пробного періоду та покращити конверсії в платну підписку. Було проведене порівняння ефективності рекламних систем Apple Search Ads і Facebook Ads – друга платформа виявилися економічно вигіднішою, але зі складнішою реалізацією відстеження атрибуції. Також було досліджено стратегію мотивованих встановлень додатку на прикладі платформи KeyApp як інструмент підвищення позицій за ключовими словами й органічної видимості; результати виявилися неоднозначними.

Дослідження спрямоване на пошук оптимального способу узгодити обсяг залучених користувачів і доходи від них в рамках просування додатків за підпискою. Незважаючи на те, що freemium-модель сприяє розширенню охоплення та зниженню витрат на залучення, довгостроковий успіх залежить від утримання користувачів і їхньої довготривалої цінності (LTV). У перспективі подальші дослідження можуть бути зосереджені на розширенні вибірки та використанні моделей машинного навчання для прогнозування LTV і оптимізації маркетингових стратегій.

Ключові слова: *мобільний додаток, Apple Search Ads, бізнес-модель за підпискою, ціна за встановлення, мотивований трафік, довгострокова цінність користувача (LTV).*

Формул: 0; рис.: 4; табл.: 1; бібл.: 21

Abstract. *This study explores mobile app management and promotion strategies, focusing on how monetization model changes and the use of motivated (incentivized) traffic influence mobile app store visibility, organic growth, and the performance of user acquisition campaigns. The research is grounded on a real-world case of an iOS app "WordFace" developed by the authors, initially distributed for a fixed price and later transitioned to a free-to-download model with in-app subscriptions. The primary objective was to analyze how this shift influences user acquisition cost,*

conversion rates, and overall return on investment. Methodologically, the study combines practical ads campaigns data with industry benchmarks and digital platforms analytics (SplitMetrics, RevenueCat, Adapty).

Findings show that the switch to a freemium model dramatically reduced the cost per install and increased the conversion rate from impressions to installs. However, the new monetization approach required optimized app onboarding system and subscription funnels to convert free users into paying customers. A structured onboarding process and a 3-day free trial were introduced, increasing trial starts and improving trial-to-paid conversion. Additional experiments compared Apple Search Ads to Facebook Ads, where Facebook proved more cost-effective but required complex attribution tracking. The study also examined motivated installs on the example of KeyApp platform as a tool to boost keyword rankings and organic visibility, yielding mixed results.

The research highlights the trade-offs between volume and user quality in subscription app promotion. While freemium models enhance reach and lower acquisition costs, long-term success hinges on retention and lifetime value (LTV) of acquired users. Future studies may expand the dataset and explore machine learning-based targeting or predictive LTV modeling to further optimize mobile app marketing strategies.

Keywords: *mobile app, Apple Search Ads, subscription model, cost per install (CPI), motivated traffic, lifetime value (LTV).*

Formulas: 0; fig.: 4; tab.: 1; bibl.: 21

Introduction. In today's highly competitive mobile app ecosystem, effective user acquisition and sustainable monetization are critical for the long-term success of app-based businesses. While the freemium model with in-app subscriptions has become the dominant approach in mobile monetization, the process of converting free users into paying subscribers remains a significant challenge. Studies show that, on average, only about 3.7% of users initiate a free trial after downloading a subscription-based app, and less than 2% convert into paying users overall (RevenueCat, 2023). This raises essential questions about the efficiency of various mobile apps management approaches and promotion strategies.

Recent industry publications highlight the growing role of performance marketing platforms such as Apple Search Ads and Facebook Ads in driving installs, yet emphasize the trade-offs between cost-efficiency and user quality (SplitMetrics, 2024; MWM.ai, 2024). At the same time, App Store Optimization (ASO) strategies, including the use of motivated traffic, are increasingly used to manipulate keyword rankings and visibility (ASOdesk, 2021; KeyApp, 2018). However, the long-term effectiveness and risks of such tactics remain understudied.

This research addresses these gaps by examining a real-life case of a mobile app that underwent a transition from a paid model to a freemium subscription model. Through practical experimentation with ad platforms and motivated installs, the study aims to contribute to the broader understanding of a mobile app growth strategies and their unit economics.

Analysis of Contemporary Studies. Recent industry reports indicate a major shift in mobile app promotion toward privacy-friendly, performance-based acquisition strategies. Several studies claim that Apple Search Ads (ASA) has surpassed Facebook as the most effective iOS ad channel, offering lower cost-per-install and higher post-click conversion (Koetsier, 2021; Galazzo, 2018). Studies also emphasize that combining ASA with App Store Optimization (ASO) produces synergistic effects, enhancing visibility and organic growth (Galazzo, 2018).

The freemium subscription model has become the dominant monetization approach used by 83% of top-grossing apps, while fewer than 3% of apps rely on upfront payments (Noren, 2023). Academic analyses note that freemium models succeed only when supported by organizational capabilities and strong market alignment (Shang et al., 2024; van Angeren et al., 2022). Moreover, paid-only models are increasingly viewed as unsustainable in saturated mobile apps markets (Stocchi et al., 2022).

Motivated traffic, while controversial, is used to manipulate keyword rankings and achieve short-term ASO gains. Empirical studies show it can temporarily boost app store visibility and even aid early-stage funding (Farooqi et al., 2020; Suliagina, 2021), though misuse may lead to app store penalties. Overall, literature supports a holistic approach:

scalable acquisition, conversion-focused mobile apps, and occasional tactical use of incentive installs.

Research Objectives and Methodology. This study aims to provide app owners and brand managers with actionable insights into how shifting a mobile app's monetization model from a paid download to a freemium subscription affects user acquisition efficiency via digital ads platforms, as well as mobile app store visibility. It also examines the strategic use of motivated traffic as an App Store Optimization (ASO) tool to improve keyword rankings and attract organic installs.

The research is based on a case study of the Apple iOS app "WordFace", using real advertising data from Apple Search Ads, Facebook Ads, and ASO campaigns via various digital platforms. Key performance metrics (e.g., cost per install, conversion rate) were analyzed with support from analytics tools such as KeyApp and Adapty. This methodology enables a data-driven evaluation of how app management affects mobile app growth.

Presentation of the primary material. The research is based on the iOS app called "WordFace", which was developed and published as a part of this study. This mobile app is a commercial utility for iPhone and Apple Watch in the Education category. It was initially priced at $3.99, intended to be a light-weight utility for learning foreign languages. Since its interface and product page is also translated to English, it is available in most Apple App Store countries worldwide.

Switching to a subscription model and its impact on Apple Search Ads performance. Shifting our tested app's business model from a paid download to a free download with in-app subscription markedly changed the dynamics of user acquisition through Apple Search Ads. Under the paid model, users encountered an upfront paywall on the App Store, which limited initial downloads to only those already convinced of the app's value. After transitioning to a subscription-based freemium model, the installation barrier was removed – users could get the app for free – resulting in a much larger pool of installs driven by Apple Search Ads. Indeed, the freemium model is known to lower the barrier to entry and reach a wider audience. In our case, Apple Search Ads (ASA) campaigns observed a surge in conversion rate (impression-to-install) post-transition, as users were more willing to tap and install a free app. Correspondingly, the cost per install (CPI) on ASA plummeted; acquiring an install became significantly cheaper once the app was free to download (see Table 1).

This outcome aligns with industry observation that free apps supported by in-app purchases or subscriptions can achieve far greater scale in user acquisitions than paid apps. For example, one iOS apps developer reported that shifting one of its apps from a paid model to a combined IAP (in-app purchases) and subscription model led to a fivefold revenue increase from IAPs and eventually a 15x increase in earnings after introducing subscriptions (MWM.ai, 2024) – a testament to how removing upfront costs can unlock user growth and monetization potential.

During the period when our test app was sold with a fixed price, we have conducted several Apple Search Ads Advanced campaigns that were mainly search ads (as Today Tab ad placement was unavailable for all advertisers at that time). With budget of $230, 3 app installs were achieved in a month using Apple Search Ads Advanced, while with Apple Search Ads Basic there were no downloads at all – even with monthly budget provisionally set to $1000 and maximum cost-per-install set to $4.

After the app distribution model change, our new campaigns in Apple Search Ads showed very different results. With around the same budget the conversion rate was far better, with ads actually generating installs, while Apple Search Ads Basic yielded positive results as well with 33 installs, accounted for $2.54 cost per install (see Table 1).

Crucially, while Apple Search Ads effectiveness improved in terms of driving installs (more ad impressions converted into downloads), the focus of conversion shifted downstream. Under the old paid model, every install was a paying user by definition (100% of those who installed had purchased the app).

In the new model, all users install for free, but only a fraction converts into paying subscribers after the download. This is consistent with broader App Store trends in user behavior: one large-scale analysis found that less than 2% of users who download a free app ultimately become paying subscribers (RevenueCat, 2023). In our study, we observed a strong initial spike in ASA-driven installs after the switch, but only a small percentage of those users proceeded to start a subscription. This funnel attrition is typical – RevenueCat (2023) reports that on average only about 3.7% of downloads lead to a trial start in subscription apps, and about 38% of those trial users convert to a paid plan. The effect on ASA performance can be summarized as a trade-off: ASA now delivers many more installs at a far lower cost per user, but each user is less immediately valuable than when for the app was paid upfront.

User conversion and retention have become the critical metrics – it is now imperative to engage and persuade those additional acquired users to subscribe during or after the free trial. The net impact on revenue depends on the lifetime value (LTV) of these users versus the acquisition cost. Nonetheless, the move to a subscription model has clearly made ASA a more efficient tool for broad user acquisition. It enabled us to confidently scale up ASA spend, knowing that we could attract a larger audience into the top of the funnel. As a result, the shift to subscription model dramatically improved the immediate performance metrics of Apple Search Ads (install volume and cost-efficiency), while shifting the challenge toward optimizing user conversion from free trials to paid subscriptions.

Comparative effectiveness of Apple Search Ads vs Facebook Ads after the distribution model shift. With the app became free to install, we compared the performance of Apple Search Ads and Facebook Ads as user acquisition channels for our test mobile app. The analysis was based on post-change campaign data, focusing on key metrics like cost per install (CPI) and conversion rate (installs per tap for ASA, and installs per click for Facebook). The data revealed clear differences: Facebook outperformed Apple Search Ads in conversion efficiency and cost-effectiveness, as our results showed Facebook's cost per install could be lower than ASA's.

It is worth noting that from implementation point of view, integrating Facebook APIs to accurately track mobile app installations originating from Facebook or Instagram advertisements has proven to be a notably complex task. Currently, the Facebook API infrastructure presents significant challenges, primarily due to inconsistent and limited support for Apple's App Tracking Transparency (ATT) framework. This instability complicates precise user acquisition tracking, creating obstacles for marketers and developers alike. Overall, when it comes to mobile apps advertising, managing its attribution is particularly challenging.

Our subsequent Facebook campaigns demonstrated that smaller cost per app install compared to Apple Search Ads is possible (see Table 1).

Table 1

Comparing results of campaigns on Apple Search Ads and Facebook Ads during the test phases 1-4

	Phase 1. Apple Search Ads campaigns, paid app	Phase 2. Apple Search Ads campaigns, freemium app	Phase 3. Facebook campaigns, freemium app	Phase 4. Facebook campaigns, freemium app with 3-day trial and onboarding
budget spent, USD	230	250	800	610

Continuation of Table 1

total impressions	17 300	38 700	345 000	277 000
total taps (ASA) or clicks (Facebook)	250	380	2850	2490
overall conversion rate (installs per tap / installs per click), %	1.2	14.7	7.1	8.8
best cost per install, USD	13.70	1.89	1.20	1.63
average cost per install, USD	76.67	4.46	2.38	2.76
app installs	3	56	203	221
in-app purchases (subscriptions or 3-day trial started)	-	2	7	24

Source: Compiled by the authors

As shown in the table, the transition from a paid to a freemium model significantly improved performance in Apple Search Ads campaigns, increasing the conversion rate from 1.2% to 14.7% and reducing the best cost per install from $13.70 to $1.89. Also, in our study Facebook Ads campaigns outperformed Apple Search Ads in terms of total reach and lowest cost per install. Perhaps, the most important observation is the quantity of in-app purchases dynamics. In Phase 1 (paid app), no purchases were recorded, highlighting the barrier posed by upfront pricing. After switching to a freemium model, Phase 2 with Apple Search Ads yielded 2 pucrases (ironically, users bought "lifetime" option, not subscriptions) while Facebook campaigns in Phase 3 increased this number to 7. The highest result was achieved in Phase 4, with 24 trial activations, following the implementation of app onboarding improvements and a 3-day trial. This suggests that combining freemium access with optimized onboarding significantly boosts user conversion into the subscription funnel.

It is worth noting that Facebook Ads can play a role in scaling reach beyond the subset of users actively searching the App Store. In our campaign, Facebook provided volume and demographic reach that ASA could not (since ASA is limited to Apple App Store search queries). However, the unit economics differed markedly. For a subscription app, acquiring high-intent users efficiently is crucial. Any scaling of Facebook spend would need to be justified by those users exhibiting sufficient downstream conversion to subscribers. In summary, after the business model change, Facebook ads emerged as the more cost-effective channel for our app, whereas Apple Search Ads had higher acquisition costs, requiring careful ROI analysis and possibly nurturing those users more through retargeting or engagement campaigns to realize comparable value.

Overall, based on our analysis and practical experience, it appears that a specialized advertising platform, which is Apple Search Ads Advanced, can be a channel for acquiring specific users, while Facebook

Ads offer a cost-effective solution for generating more installations of a mobile app.

Onboarding mechanism and free trial adoption to boost subscription conversions. To address the challenge of converting the influx of free users into paying customers, we introduced a refined onboarding process in the tested app coupled with a 3-day free trial for the subscription. The new onboarding screens featured attractive, informative screens highlighting the app's value propositions and premium features (see Figure 1). This culminated in a paywall offer for the free trial. The goal was to engage users early, educate them on what they could gain, and then prompt them to start the trial, thereby entering the subscription funnel. Such onboarding and paywall optimization techniques are commonly employed by mobile publishers to increase subscription uptake. Many successful subscription apps use a "warm-up" funnel in which after a brief onboarding or a lengthy quiz, users are immediately shown a subscription offer screen tailored to their interests (Adapty, 2023). Our approach mirrored these industry practices, aiming to capitalize on the user's initial curiosity.

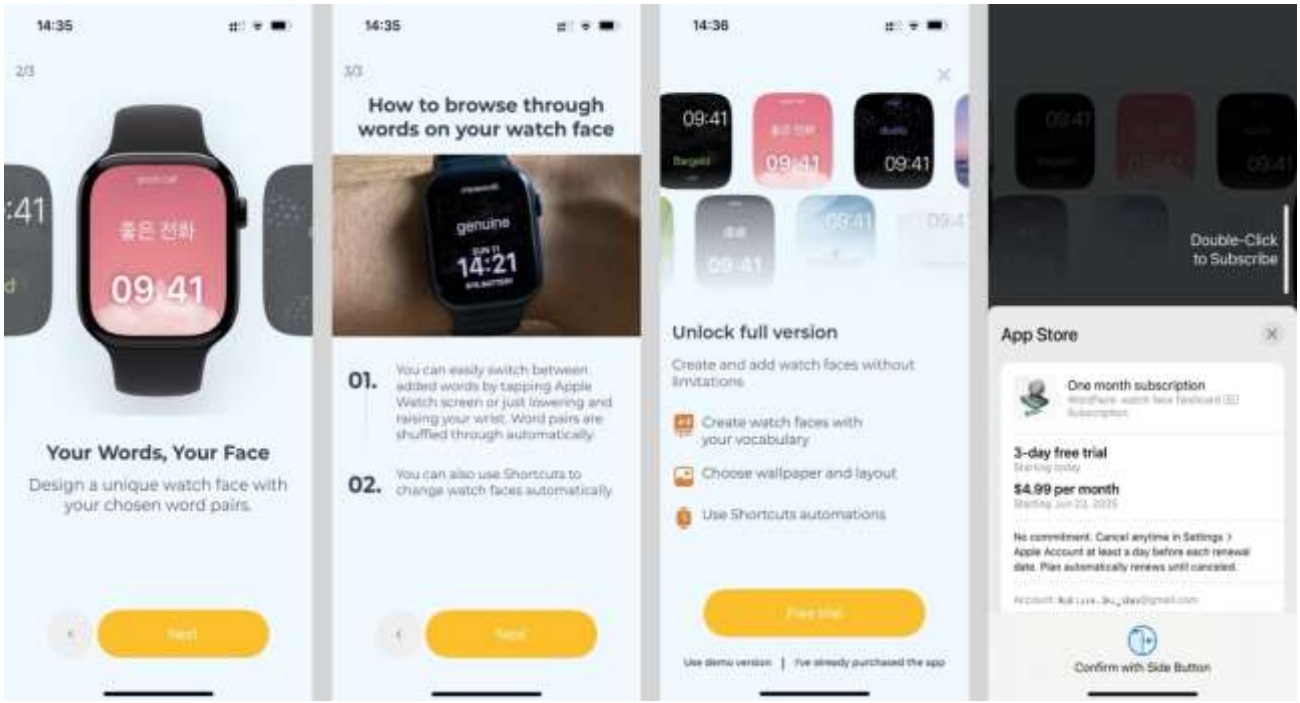

Fig. 1. In-app onboarding and 3-day free trial, images made by the authors

We also employed persuasive copy and visuals on that screen, emphasizing the limited time "3 days free" as an exclusive opportunity. This combination of compelling design and minor friction to skipping is intended to maximize the trial start rate. It is reported that subscription and daily revenue are strongly correlated with how frequently and effectively the paywall is shown to users, as long as the core product delivers value (Adapty, 2023).

Beyond user interface tricks, we focused on the unit economics underlying these design decisions. Driving more users into trials is only beneficial if those trials convert to paid subscriptions at a healthy rate and the subscribers stick around. We closely monitored metrics like trial conversion rate, subscription activation rate, and early churn (see Figure 2).

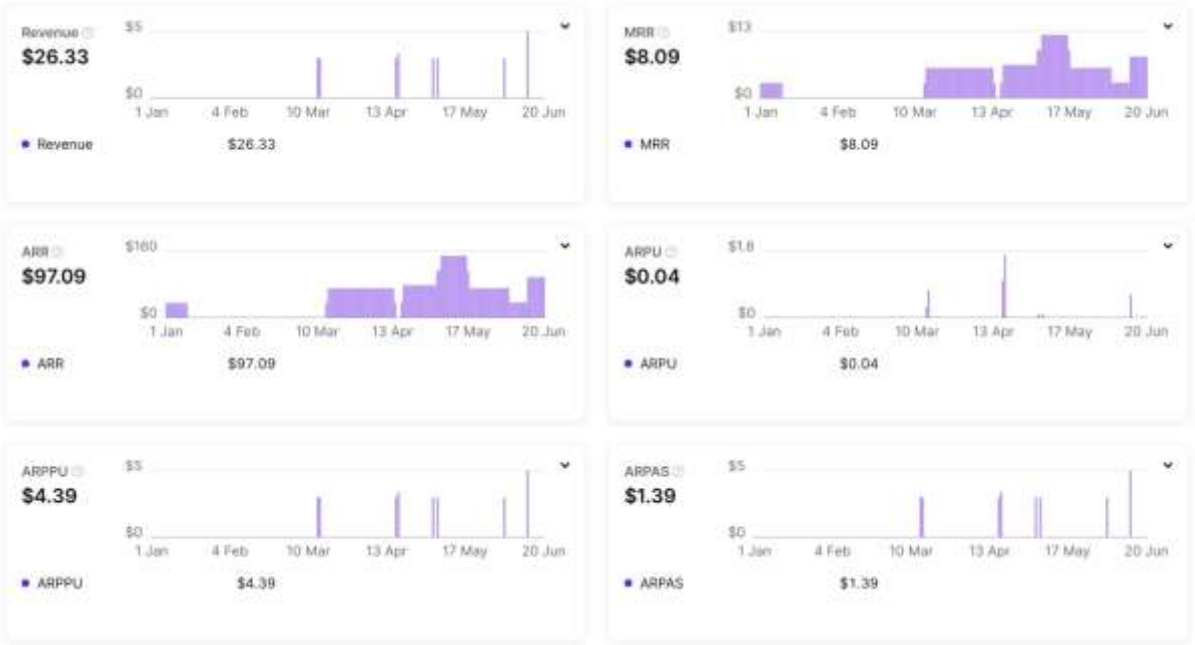

Fig. 2. Year-to-date app performance as shown in Adapty portal, at the moment of 2 active subscriptions and 3 active trials.

Source: Adapty portal (n.d.)

The importance of customer LTV cannot be overstated here: short-term boosts in subscription starts mean little if those users cancel before contributing meaningful revenue. This is why marketers stress that user acquisition strategies must be optimized for LTV, not just installs or upfront conversions (AppLovin, 2024; WattsSpace, 2025). In practice, that means ensuring that users whom app managers bring in and convert via the free trial have a high likelihood of retaining and renewing. During the research, our onboarding improvements were aimed not only to increase the sheer number of trial sign-ups but also to set the right expectations so that users who started the trial would see the value in continuing their subscription. We drew on external research and industry practices for this. For instance, some apps like "Blinkist" have found that being transparent and reminding users about trial expiration can increase trust and reduce cancellations, ironically improving net conversion to paid users (RevenueCat, 2023).

A critical part of evaluating these onboarding and trial optimizations is cohort analysis of user LTV. Industry guidance suggests always comparing LTV against the cost of acquisition (CPA) to maintain profitability (GameBiz Consulting, n.d.). In our case, after implementing the new onboarding screens with trial, we observed an uplift in trial start rates and a moderate increase in conversion from trial to paid. We also kept an eye on payback period – how long it takes for a subscriber's revenue (from subscription payments) to cover the cost of acquiring them.

According to RevenueCat (2023), the average revenue per user (ARPU) reaches approximately $21.5 by month 6. Per Adapty (2024), the average customer acquisition cost (CAC) for a paying subscriber of a mobile app is about $12. The chart (see Figure 3) shows how the cumulative ARPU normally grows month by month, the horizontal red line represents the CAC. The point where the ARPU curve intersects the CAC line indicates the payback point, which occurs around month 4. Consequently, based on industry statistics, a mobile app becomes profitable starting from month 4 of the user's subscription. The LTV/CAC ratio is approximately 1.8:1, indicating a sustainable and profitable subscription model.

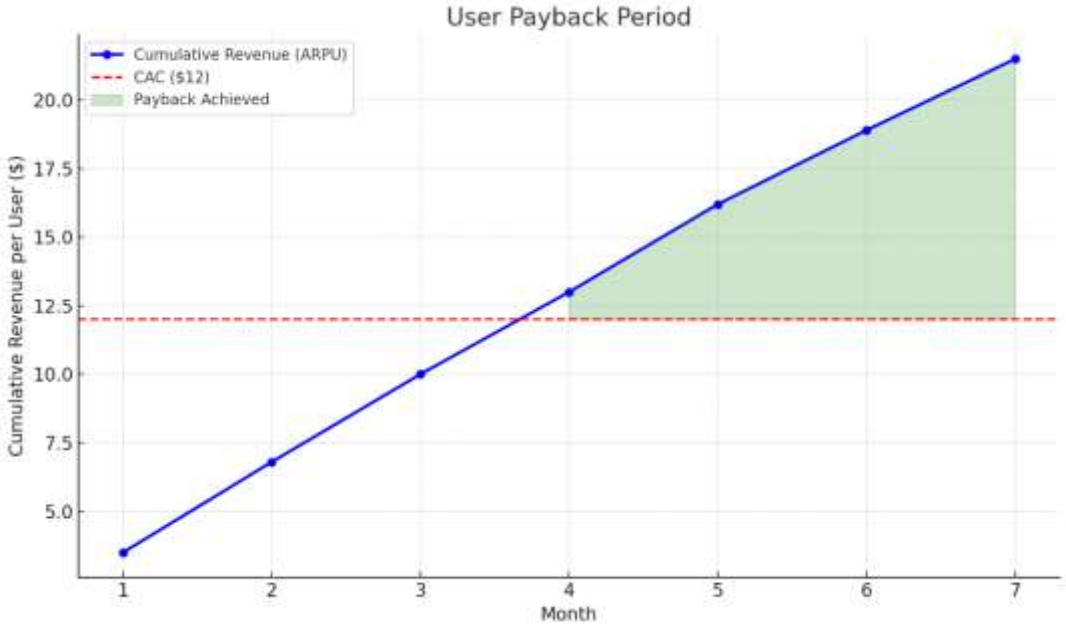

Fig. 3. Estimated subscriber payback curve, compiled by the authors based on industry benchmarks

By focusing on high-LTV users and improving conversion, mobile app owners and managers aim to shorten the payback period and have greater reinvestment into user acquisition. This approach is echoed in the broader mobile industry: acquire the right users, not just a lot of users, and design the product funnel to maximize their long-term value (AppLovin, 2024).

The effects of motivated traffic on App Store visibility and organics. Motivated traffic means users are paid for performing specific actions like searching a keyword and installing the app. This method is often used as an App Store Optimization (ASO) tactic to influence an app store's search ranking algorithms. If executed correctly, motivated installs can temporarily boost an app to the top of search results for the chosen keyword (ASOdesk, 2021). The surge in installs signals to the app store algorithm that the app is highly relevant, for instance for "watch faces" keyword, thereby improving its ranking for that term. As the app climbs toward the top positions, visibility increases – more organic users searching "watch faces" will see our app in the results and potentially download it. In essence, this strategy aims to generate an "organic uplift": the paid motivated installs push the app up the ranks, leading to more organic installs due to higher visibility. An ASO case study noted that with the help of incentive traffic, an app can establish itself in the top search results and start to "constantly receive organic installs" as a result of that improved visibility (ASOdesk, 2021).

We anticipated a similar outcome for our tested app and its relevant keywords; as a successful burst campaign could markedly increase our app's organic downloads in the local Apple App Store, users who would otherwise not have found our app should see it listed among the top results. Hence, the next experiment in our promotion framework was the use of motivated traffic using the specialized platform called KeyApp to boost the app's ranking for target keywords in Apple Apps Store. Base cost per install on this platform is $0.27 ($0.19 for an Android app), however it is decreasing if installs are purchased in bulk.

For our tested app we chose 3 keywords on the local Apple App Store (Ukraine): "циферблат" (1), "watch faces" (2), "циферблаты apple watch" (3) – see Figure 4.

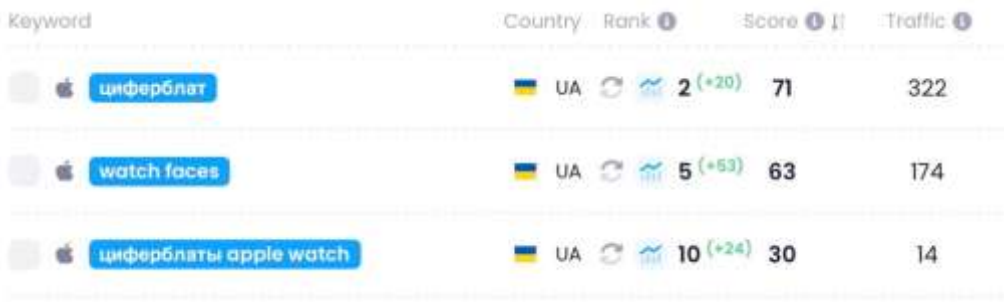

Fig. 4. Results of the motivated installs campaigns, "traffic" and "score" indicators are severely distorted by the KeyApp platform. Source: KeyApp portal (n.d)

Starting positions in the search results for the selected keywords were: 22 (keyword 1), 55 (keyword 2), 32 (keyword 3). After several campaigns on KeyApp, actual App Store positions were 2 (keyword 1), 5 (keyword 2), and 8 (keyword 3). It should be noted that sometimes the platform does not provide current rank correctly (as well as traffic amount, which could be very approximate), so we checked it manually.

Admittedly, the popularity of keywords on the App Store for a particular country plays a significant role, as well as whether your app is indexed at all for a particular keyword. Traffic and relevance indicators are approximate and calculated automatically on platforms such as KeyApp or other ASO services, therefore may not be accurate, as Apple does not provide official data. For monitoring keywords, during our trial we used several ASO services and manually entered queries in the App Store search. We concluded that keyword 1 is not popular in Ukraine, while keywords 2 and 3 generate a large percentage of impressions and installs for our app's top competitors.

Overall, the campaigns we conducted on KeyApp costed $70, we received 360 motivated installs during the 7-day period. Although our tested app achieved high positions with all 3 keywords, this has not resulted in an immediate surge of organic downloads from the App Store, which is stuck on just 1 install per day (based on the App Store Connect statistics for our app).

Several conclusions can be made based on the trial. First, although positions with the highest traffic are usually the top 3 results in App Store search, it is possible that some keywords that are shown as having significant traffic on ASO platforms will not actually generate a substantial number of organic downloads (or do not have the estimated traffic at all). For a more informative assessment of the selected keywords effectiveness, KeyApp platform recommends achieve the top 3 in search results.

Second, it is very important which keywords the app is indexed by, even if it is after the 100th place in search results (it is not recommended to promote keywords for which an app is not present in the search results at all). This once again emphasizes the importance of ASO, namely the presence of relevant keywords in the title and subtitle of an app in the App Store (in Apple App Store, the app description is usually not indexed). Furthermore, keywords selected by the app owner in Apple App Store Connect should be similar to the ones that are effective for search and installs of competitors apps.

Provided that the necessary research was done, motivated traffic can be a quick way to overcome the cold-start problem or a "plateau" in organic growth. For example, like in our own trial, KeyApp's data (from Google Play apps campaigns) showed that an app's keyword ranking improved by more than 30 positions within 5 days when motivated installs were applied, dramatically increasing its visibility (KeyApp, 2018). Additionally, a higher-ranked app tends to attract more user reviews and engagement, which can further reinforce ASO factors like rating and retention, creating a virtuous cycle of improved store listing quality.

On the negative side, motivated traffic comes with potential pitfalls. Both Apple and Google are aware of artificial boost tactics, therefore a sudden, suspicious spike in installs can trigger algorithmic penalties ("pessimization" of the keyword for an app) or even a ban for a mobile app itself if misused. App owners and managers must ensure that the motivated installs appear natural and are spaced properly. For this, ASO groundwork needs to be done first: the app listing should pe optimized for the promoted keywords, while ensuring that these keywords are relevant to the app, increasing likelihood of genuine downloads. For motivated traffic to work, app managers should start with low volumes and gradually increase – a rapid flood of installs on a brand-new app is not desirable. In our study, since for our tested app there was only 200 installs from ads and other sources per month, we started with buying modest 10-15 installs per keyword on day 1 and finished with 25-35 installs on day 4, which is the recommended period for such campaigns.

For app owners and managers, it is important to understand that the value of motivated traffic is not in the users themselves, but in the improved visibility that attracts genuine users. Research on organic uplift in app marketing suggests that a spike in paid installs can indeed lead to a multiplicative effect on organic installs – sometimes referred to as the "organic multiplier" (AppsFlyer, 2019).

Conclusions. This study provides empirical insights into the monetization management and promotion of mobile applications by analyzing the real-world transition of an iOS app from a paid model to a freemium subscription model. The research contributes to academic discourse by quantitatively demonstrating how such transitions affect advertising efficiency, user acquisition costs, and mobile app store visibility across multiple platforms.

From a theoretical standpoint, the study reinforces and expands current models of user acquisition efficiency. It confirms that Apple Search Ads and Facebook Ads exhibit differing cost dynamics post-monetization shift, with the freemium model significantly lowering CPI while requiring improved mobile app onboarding to align with an optimal LTV model.

As a practical aspect, the findings offer clear guidance for app owners and brand managers seeking to scale app installs and subscriptions: combining structured onboarding, free trials, and performance ad channels improves initial uptake, while long-term success depends on conversion and LTV. The study also evaluates the short-term efficacy and long-term risk of using motivated (incentivized) traffic as an ASO tactic, providing a framework for controlled application of such strategies.

From a socio-economic perspective, the approach outlined in the study enables mobile app owners to reach broader audiences at lower upfront cost, supporting the software development industry. Further research may extend these findings using predictive LTV models and machine learning-driven ad optimization frameworks.

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