

**“Everything you ever wanted to know
about ASO”**

App Store optimization: The Ultimate Book

ASOWin

App Store Optimization

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EVERYTHING YOU WANTED TO KNOW ABOUT APP STORE OPTIMIZATION

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CHAPTER 1

THE BUSINESS IMPERATIVE OF APP STORE OPTIMIZATION

A. The Billion Dollar Business Question of App Developers

We keep meeting a host of App Developers and a common question which they have is how to make their business even more successful through their Apps.

This is a very natural question as after having developed the App, the next step is to make it work so that it converts into a steady business revenue stream. But we all know that the Apple App Store and the Google Play Store have millions of Apps and each App is jostling for its space in this universe. This therefore is the “arena of competition” for all App owners.

So, every App has to fight its way to the top so that it is capable of presenting itself to the users who would find it as a right solution for the product or service which they are seeking.

This publication will help you navigate through the maze to help you arrive at a decision point on what you need to do to take your App to the top ranks.

B. Visibility is the Key

You have heard the age old adage that “seeing” is “believing”. This holds true for Apps also as you have to feature in the search by people. If the potential e-commerce customers do not see your App, there is no way that they would get to know about you unless you have a great presence through other channels of communication. Therefore, you have to focus on making your App visible. It is easier said than done and that is where App Store Optimization comes in.



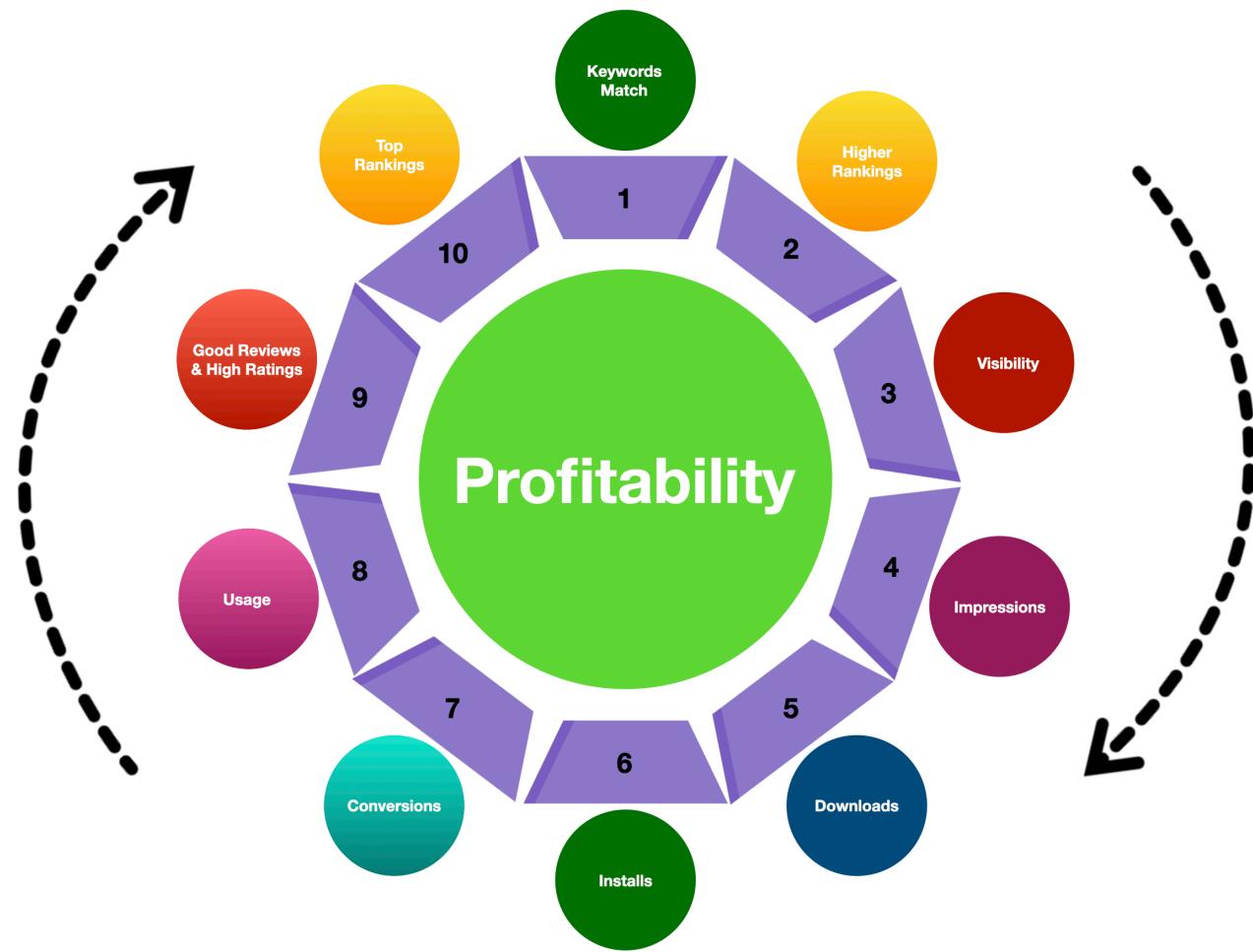
C. What is App Store Optimization?

App Store Optimization or ASO, as it commonly referred to, is a systematic process which helps you to improve the ranking of your App which in turn will provide it visibility in the App Stores. These would lead to downloads, installs and possible conversions.

In form of a schematic, it would look as under:-

Keywords Match → Higher Ranking → Visibility → Impressions → Downloads → Installs → Conversions → Usage → Good Review and High Ratings → Top Rankings

The central focus of all the efforts of the developers is to generate sales revenues and register profitability. A diagrammatic representation for quick referencing has been developed by ASOWin for quick conceptualisation.



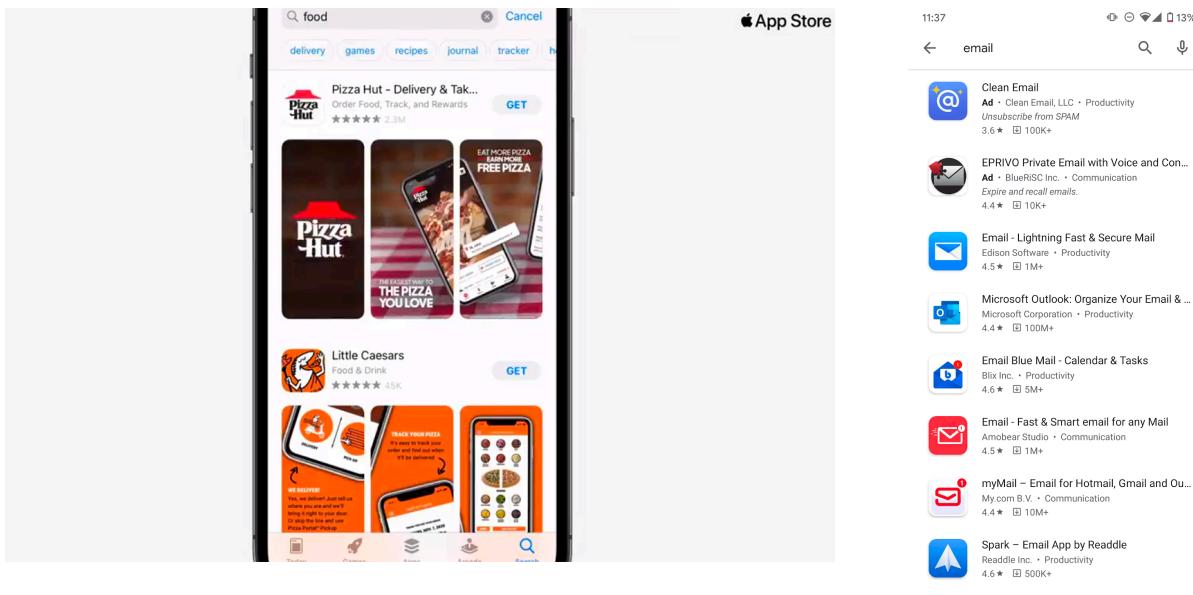
The Virtuous Cycle of Successful Apps - A Conceptual Framework by ASOWin

The value chain has several moving parts and links. Some of them are within the control of the developers. These have to be optimised so that traffic is attracted to your app which should result in conversions and hopefully higher profitability. ASO is therefore an effective tool which determines the success of your App at the Apple App Store and the Google Play Store.

CHAPTER 2

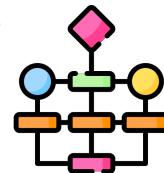
DETERMINANTS OF APP RANKINGS

D. Factors which Determine App Rankings



App Store vs Play Store Search Results

Your App needs to be found by the algorithms of the Apple App Store and Google's Play Store. Algorithms is a process or set of rules which are followed in calculations during computer operations for a defined purpose. In our case, it would be to sort out search results to determine App rankings. In simple words, search algorithms determine which Apps would feature in the top ranks in the Play Store.



There are some commonalities as well as some differences in the algorithms which are used by Apple App Store and Google Play Store. While the specific construction of these algorithms are not available in the public domain, correlation studies have provided some pointers which we will cover. These would continue to evolve as the Play Store also keeps changing the search algorithms.

D.1 Commonalities

D.1.1 App Name or App Title

Your name match would be picked by the algorithms when searching the metadata. In the Apple App Store, your App's Sub-Title and Keywords would be run over during the search. At the Google Play Store, the Short description and Full Description, would be the coverage during the metadata search.

Greater the match between the user search and your App's name, higher will be the ranking that would be assigned by the algorithms. Therefore, it would be preferable if the Apps title and subtitle use terms which closely reflect its purpose.

The terms or keywords carry decreasing weightage of ranking power is in the chronology mentioned below:-

- Title : Studies have indicated that a strong keyword match increases the possibility of getting searched by more than 10%.
- Sub-Title / Short Description
- iOS keyword / Long Description

The more the keywords in the description, the higher would be the probability of ranking.

D.1.2 App Downloads

Higher the number of daily downloads, better would be the ranking in the App Stores. The App would get associated with a large number of search terms. The downloads are represented in terms of volume and velocity i.e. the number of downloads registered in a given period of time. But downloads should not be seen in isolation as uninstalls would send a message to the contrary that users are not finding the App worthwhile to stick on to. Volume and usage continuity of the App are considered strongly during the ranking computation.

Recency of the downloads also impacts the ranking. Old downloads followed by a period of lull, do not fare well in ranking in comparison with an App which has a constant increase in volumes with the download traffic being of recent origin.

D.1.3 Ratings and Reviews

Ratings assigned by users is a direct feedback about the App and is therefore given a serious consideration for ranking it. Higher the ratings, better would be the ranking of the App. Positive reviews are indicative of the fact that the users have enjoyed their experience while using the App. As a thumb rule, an average rating of 4.5 out of a 5 star rating scale is considered to be a good rating.

Also, the algorithms scour the reviews and identify unique words which the users have indicated to describe their experience with your App. You can pick up some search words for your App from these reviews.

D.1.4 Update Frequency

If you keep updating your App, it is a signal to the Play Store algorithms that consistent improvement efforts are being undertaken. This is valued positively. Feedback to the users that their inputs have been considered for building additional features, removing system bugs and upgrading the look and feel of the App, would add to their engagement levels.

D.1.5 Conversion Rate

For the App developers, this is a critical indicator as it improves the rankings drastically. The conversion rate of an app is calculated by dividing the number of installs divided by the number of impressions which the app has registered over a period of time. Say for example, the number of impressions received at the app page is 10,000 and there have been 2,000 installs, the

conversion rate would be 5%. As a thumb rule, 35% to 40% is considered to be a good conversion rate.

D.1.6 Retention Rate

The algorithms take into account the apps retention rate. It is measured by the number of app users continuing to use it and not uninstalling it. This is calculated by dividing the monthly active users of an app by the number of its monthly installs.

D.1.7 ANR (App Not Responsive) Rate

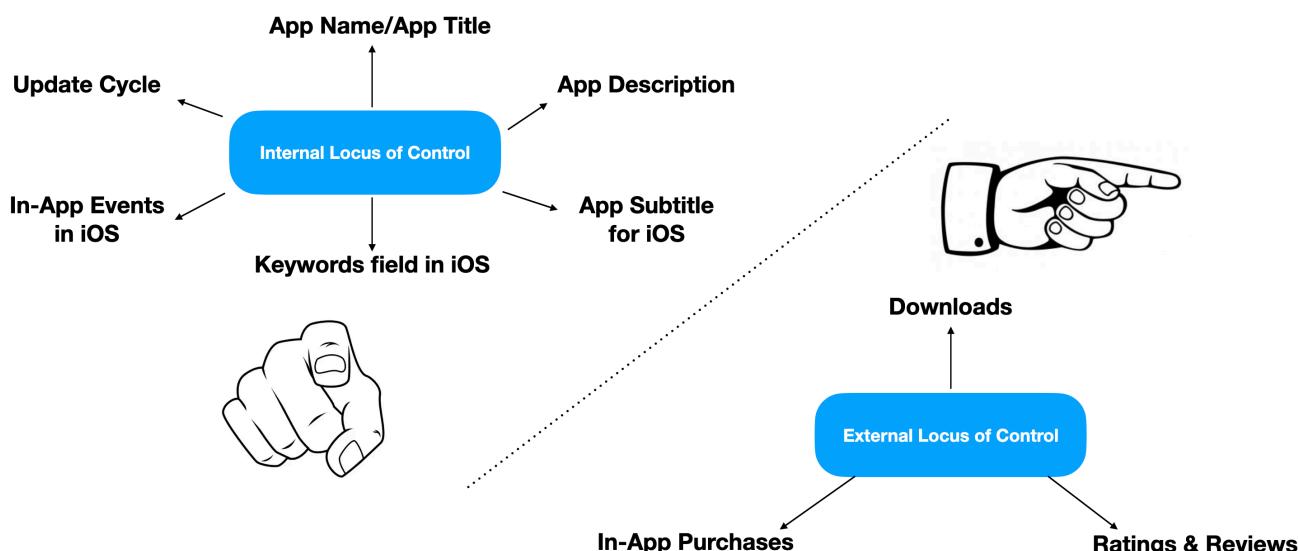
If the App stops responding or its screen freezes for more than 5 seconds, it is a case of the app not responding. This negatively impacts the ASO ranking in the Play Stores.

D.2 Play Store-wise App Ranking Factors

Developers may be having their applications in either of the Play Stores or perhaps in both. Here is an overview of both.

D.2.A: Apple App Store Ranking Factors	D.2.B :Google Play Store Ranking
I. App Name II. App Subtitle III. App Description IV. Keywords V. Downloads VI. In-App Events VII. In-App Purchases VIII. Ratings and Reviews IX. Update Cycle X. Others	I. App Title II. App Short/Long Description III. App Category IV. In-App Purchases V. Ratings and Reviews VI. Update Cycle VII. Downloads VIII. Others

Other than the downloads, In-App Purchases, Ratings and Reviews, all the other factors are within the control of the app developers. This is their window of opportunity and how best they are able to utilize it, would determine the response outcome of their users.



**Locus of Control vis a vis App Store Ranking Factors - A Conceptual Framework by
ASOWin
CHAPTER 3**

D.2.A Apple App Store Ranking Factors

D.2.A.I. App Name

Your App name should be such that it should feature in the category for which the users are searching for at the Apple App Store. Your app name should match with the key words being generally used by people who are looking out for a particular product or service. Therefore, if your app title is relevant to searches initiated by people, then you have a rich probability of getting spotted. You can use your brand name, especially if it is popular. The search algorithms give a very high weightage to the app name.



Along with your app name, your app icon should also communicate to the users about its utility. Icons which contain some elements of the keywords attract more traffic than the ones which use abstract designs or graphics. This does not mean that the importance of the design of the app icon is to be underestimated as this is the first visual point of contact with the potential customers. Pictograms, ideograms (shapes/images/ representative figures) can be used as a visual. While making the icons it is suggested that you use the iOS icon grid itself in order to be consistent with the platform (and the same holds true for Android too). The app icon should convey their precise impression of what your app is about and it should catch the user's attention. It is only after seeing the icon that the attention span moves towards the app name followed by the category and the star ratings and therefore creating a cohesive, beautiful and good looking icon is important.

Icons and screenshots are the biggest visuals to the users. Therefore, create well designed, good quality, high pixel excellent screenshots to show off your app in the best way and through this also set the standards of expectations of your users. While doing so, consider translations and localization, use of scenic backgrounds, emojis and rich texts. Higher the visual impact, greater is the probability of receiving app downloads.

D.2.A.II App Sub-title



30 characters are provided for the sub-title for iOS apps. These appear along with the app icon, title and the screen shots when there is a match with the keywords.

D.2.A.III App Description

App description is extremely important when it comes to ASO. You need to make sure to place important keywords in your App description. Make sure you repeat your popular keywords at least 23 times.

D.2.A.IV Keywords

While you have the app and sub-title through which you can use the exact keywords to feature in user searches, you also have to list down keywords in iOS which would be used to trace out your app. The below pointers are to be borne in mind:-

- The keywords field has 100 characters which are to be used.
- Keywords should reflect your app's purpose. This word should naturally occur in the minds of the users who are looking at a product or a service which your app is offering.
- Research and analyze for the exact keywords. Use data through the ASO tools which would list for you the search volumes, usage and installs while making a choice. This is an iterative on-going process.
- Use synonyms of the keywords and do not stuff the same keywords again.
- Try using related keywords. Check what your competitors are using.
- Make optimum use of this limited space by using numerics.
- Separate the keywords with commas, avoid using spaces in the text which would eat away the space.
- Consider choosing some keywords from the reviews which you receive.
- Review your keywords regularly to improve your rankings.
- Your metadata is your property. Improve its quality and increase the quantity of impressions which it is receiving. If your ranking is not improving, it implies that you need to get back to the basics and set your keywords right.

D.2.A.V Downloads

This is the backbone of your app. All the above are drivers of this factor and the connections in the virtuous cycle have been explained. The full reckoner is as under:-

Apriori Items: Those which are finalized at the design stage of an app

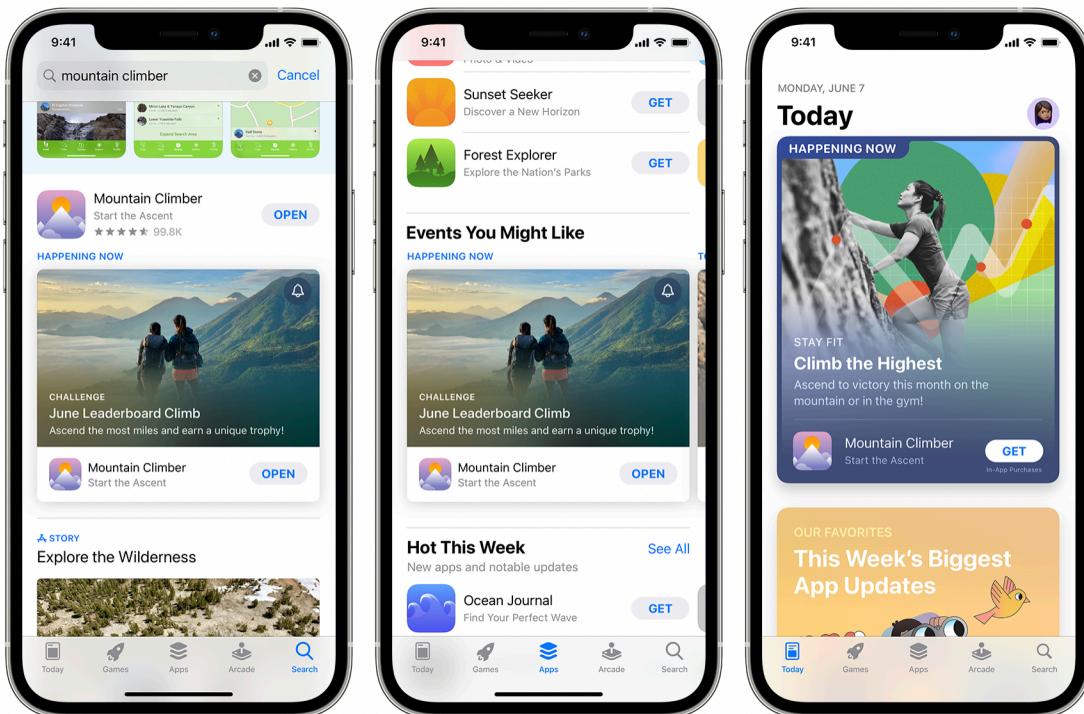
- App name: It should be relevant, connected with what the users are looking at, and have the keywords in it.
- App Subtitle: Keywords should be carefully chosen.
- App icon: Should have leading pointers which can be netted during search.
- Screenshots: 3 numbers which are arrived at after A/B testing. Though 10 are allowed by the Apple App Store, only the first 3 feature in the search results. The screenshots are like flyers and should be designed so concisely that at a glance they should communicate the narrative about your app.
- Video: This is a feature which is not used by a large number of developers (and they are missing a great opportunity out here to get ahead of their competition). Apple allows the developers to use short videos as an App Review which operates on an auto mode when the user scrolls through it. The videos should be short and slick. Most users would like to view the video to understand how the app operates and therefore it would be a

good idea for the developers to add the app review video, which would also feature in the search results.

Post App Launch Items

- Ratings and Reviews
- Apple Search Ads : Paid campaigns in which you invest for providing publicity to your app. These also involve a systematic approach to optimize your spending while getting maximum value for the money which you are spending.
- Usage
- Retention

D.2.A.VI In-App Events



In-App events are attraction items which are placed within the App or games and are timed to coincide with the user's actions. It can be an event card for those users who download the app as a reward. For other users who have not downloaded the app, a screenshot would show up for them. This factor promotes activity within the app, thereby attracting traffic, which in turn gets spotted by the search algorithms leading to higher rankings.

Event cards are promotional aids which offer the users an opportunity to make use of an offering which is being provided along with the app. It can be in the form of free movie tickets, invitation to cultural events, game competitions, special programmes, subscriptions etc. The event card

contains the details in terms of the name of the event, a short description which narrates what the event is about, images, videos or even live streaming etc.

In-App events can be published on the App Store. Therefore, for people who would be searching the event directly, would have the event card popping up before them along with the app. The app would therefore tag along with the event card. It would be worthwhile for the developers to provide their In-App events a wide publicity for which they may use a range of channels like e mails, social media, advertisements etc.

The In-App events can be set up and managed in the App Store Connect. There are rules listed by Apple and the concise version is indicated below:-

- At a time 10 events can be approved by the Play Store.
- At any point of time, only 5 In-App events can be listed on the product page of the app.
- Event name using 30 characters can be written in title case.
- Short description of upto 50 characters can be written in sentence case.
- Long description of upto 120 characters can be written sentence case.
- Images and videos are to be made as per the specifications.

D.2.A.VII **In-App Purchases**

This is the reason for all your efforts in putting together the app in the play store. The In-App purchases which you may offer may be through subscriptions, additional features, enhanced content, special badges etc. iOS platform allows you to make these transactions. The offerings may be categorized under:

GET In-App Purchases

Consumable: Extra lives, badges/gems, bonus points, magazines, clothes, food items, cab rides, tickets, newspapers, audio, music, videos etc.

Non-consumable: These are items which do not expire. These can be in the form of premium features of your app which would be offered for all times to come.

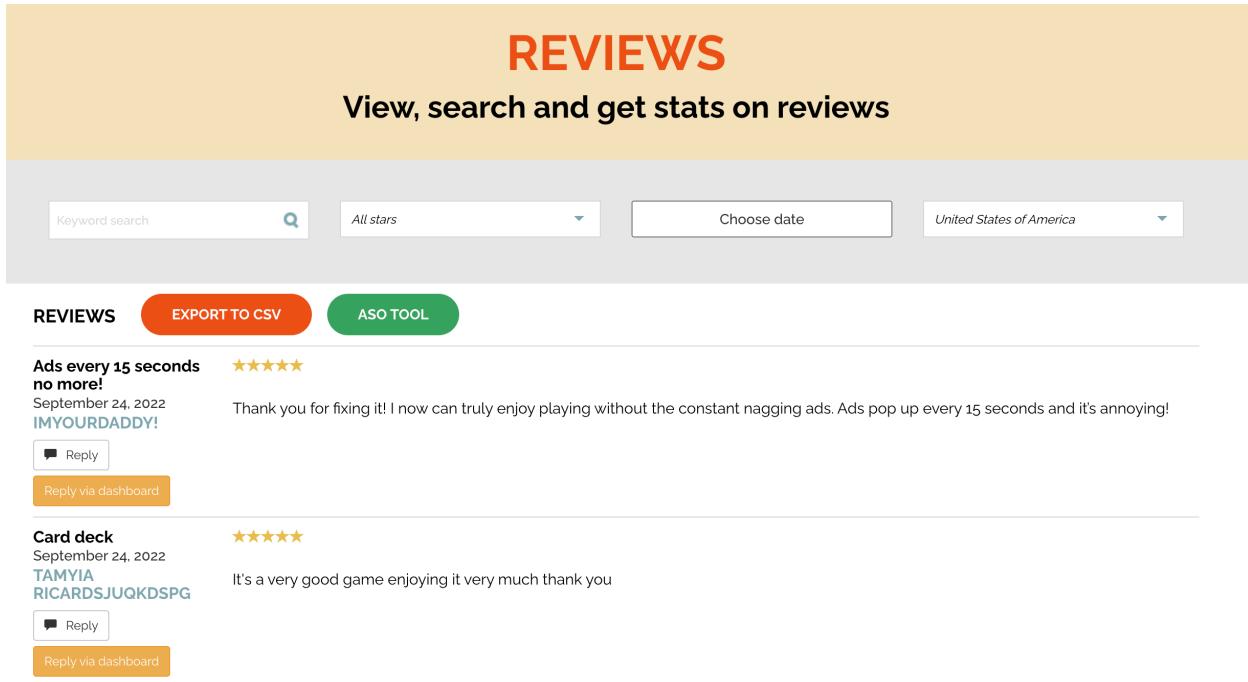
Auto-renewable subscriptions: Charging users for use of the app premium product or services til the user decides to cancel.

Non-renewing subscriptions: The charge for the app's premium product or services is for a limited period of time and the user would be required to pay for renewing the subscription on expiry of the previous period.

D.2.A. VIII **Ratings and Reviews**

Reviews are very important as they represent the voice of the customer. Encourage your users to submit their reviews especially when you know that your app is performing well. A high rating augurs well for your app and would certainly improve its ranking. If your app is getting low ratings and negative reviews, it is a good idea to take a pause in soliciting reviews. Instead, improvement actions should be launched immediately. Reviews are also a source of alternative keywords, We would strongly recommend that you consider making use of a complete reviews management tool like www.rreviews.com which would help you to look at iOS and Android

reviews all in one place on a real time basis, get Slack notifications, respond to them, view competitor reviews, monitor ratings, allow reviews export to CSV and also work out customized report analysis by way of different cuts. The slicing and dicing of data would give you deep insights on the changes which you need to bring about in your app.



The screenshot shows a web interface for managing app reviews. At the top, a yellow header bar contains the word 'REVIEWS' in large red letters and the sub-instruction 'View, search and get stats on reviews' in black. Below the header are four search/filter input fields: 'Keyword search' with a magnifying glass icon, 'All stars' with a dropdown arrow, 'Choose date' with a calendar icon, and 'United States of America' with a dropdown arrow. Under these are three buttons: 'REVIEWS' (black), 'EXPORT TO CSV' (orange), and 'ASO TOOL' (green). The main content area displays two review entries. The first review is from 'Ads every 15 seconds no more!' on September 24, 2022. It has a 5-star rating and the text: 'Thank you for fixing it! I now can truly enjoy playing without the constant nagging ads. Ads pop up every 15 seconds and it's annoying!'. It includes 'Reply' and 'Reply via dashboard' buttons. The second review is from 'Card deck' on September 24, 2022. It has a 5-star rating and the text: 'It's a very good game enjoying it very much thank you'. It also includes 'Reply' and 'Reply via dashboard' buttons.

Screenshot via reviewss.com - a complete App review management tool

D.2.A.IX Update Cycle

Constantly upgrade your app and publish the updates in App Store Connect. Frequent updates is a positive indicator that your app is evolving on a regular basis to exceed the expectations of the users. Localization steps, new screen shots, app preview videos and reply to reviews would help increase the app store listing. As a thumb rule, changes made once every 2 to 3 months would be helpful.



D.2.A. X Others

Apple has changed its algorithms and now competing applications find a place in the search results over and above the traditional factors. That brings in a variety in the search results as fresh upcoming applications also find a place in the search results unlike previously where the charts were ruled by the established ones who made a mark for themselves based on the earlier ranking factors.

CHAPTER 4

D.2.B Google Play Store Ranking Factors

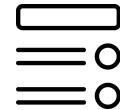
D.2.B.I App Title

Google uses its PageRank algorithm which places a heavy reliance on the title of the application. The results of Google Play Store will show your app title and app icon in case of a keyword match. Therefore, like for the iOS, the app title is critical for the Android too. The principles which we have covered for iOS, apply to Android also and so it would be worthwhile to go through them.



D.2.B.II App Short/Long Description

80 characters are provided for the short description. Keywords analysis should be undertaken and exact keywords should be used in order to use this field to boost the app ranking.



D.2.B.III App Category

It is very important to choose the right category for your App. If your App chooses a category which it does not belong to and uses the keywords that match another category, it would have a negative impact on ASO.



D.2.B.IV In-App Purchases

This refers to the additional content or services which the users buy through your app. Primarily, these represent the sales for your app, and the reason for which you are in the sellers marketplace. To view the in-app purchases which are being offered by an app, you can find it by the install or price button. Offerings may include additional features, subscriptions, aids, premium version etc. High level of in-app purchases indicates a high degree of customer engagement.



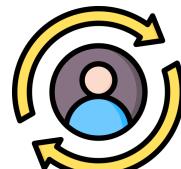
D.2.B.V Ratings and Reviews

Higher average rating and more positive reviews → Better Ranking → More Visibility → More Sales. You can see the data of your apps ratings and reviews in the Play Console. The recent ratings are given a higher weightage consideration by the Google algorithms. So it is important to have fresh positive reviews with high ratings. For this it is extremely essential that your app functions properly and provides the users with a unique seamless experience along with high quality product/service offerings.



D.2.B.VI Update Cycle

Your app should look contemporary and be in sync with the current style. Users would like to explore something which is new and is trending. The algorithms also use this as a yardstick to determine ranking. Consider making changes to your app screenshots and promo videos which would signal that the app is under active upgrade. Inclusion of localization steps, additional features and functionalities are also a welcome. Changes in the app icon should be introduced only if it is essential as users tend to get used to identifying your app with its icon. Publish your updates on the Google Play Console. As a thumb rule, changes made once every 2 to 3 months would help keep your app abreast with the pace of change.



D.2.B.VII Downloads

Like in iOS, downloads are also the backbone of your app at the Google Play Store. All the above are drivers of this factor and the connections in the virtuous cycle and have been explained earlier. The full reckoner is as under:-



Apriori Items: Those which are finalized at the design stage of an app

- App name: It should be relevant, connected with what the users are looking at, and have the keywords in it.
- Short description: Keywords should be carefully chosen and well written. These would be searched by the Google algorithms.
- App icon: Should have leading pointers which can be netted during search.
- Screenshots: 8 numbers are allowed which are arrived at after A/B testing. In Android based apps, screenshots do not appear as a part of the search results.
- Video: This is a feature which is not used by a large number of developers (and they are missing a great opportunity out here to get ahead of their competition). Google also has published its requirements for the promo videos. It has a short span of 30 seconds and has to be prepared in the 16:9 landscape format. You, however, need to post the video on YouTube first. The video would cover what your app would look like, its features, product or service which it is offering and how it functions.

Post App Launch Items

- Ratings and Reviews: This is the user feedback and the rating is a very important part.
- Google Ads : These again pertain to the advertisements for your app which you pay. While you may undertake your own study using the Google console to arrive at the approaches which would give your app the maximum search coverage, it would do well to review the complete literature or take help of an expert agency which would help you do it.
- Usage
- Retention

D.2.B.VIII Others

As specified in the Google Play console, we have:-

Crash Rate: This is the percentage of daily sessions during which your users experienced at least one crash. A daily session refers to a day during which your app was used.

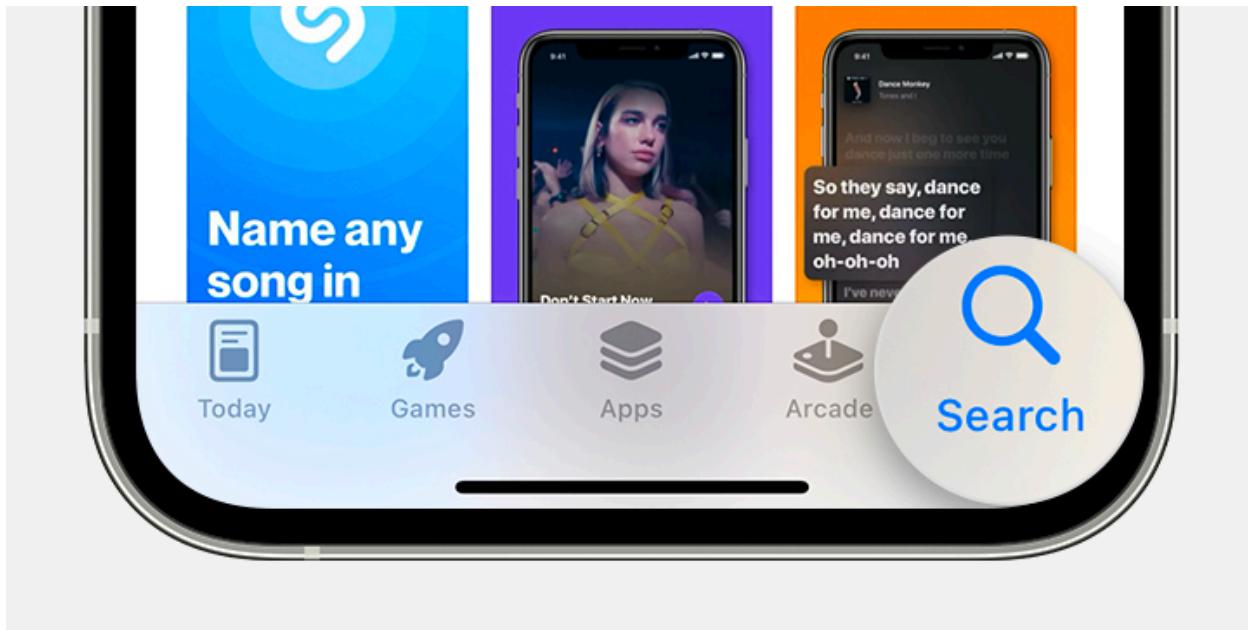


Stuck Partial Wake Locks: This is the percentage of battery sessions during which the users experienced at least one partial wake lock longer than one hour. A wakelock refers to a situation when the user of your app landed in a sleep situation while using it.



Excessive Wake Ups: This is the percentage of battery sessions during which 10 wake ups occurred per hour.

CHAPTER 5 Executing App Store Optimization



E. Getting traffic to your App

App Store Optimization (ASO) efforts are a continuous process. You have to be on top of the game always in order to reach the top ranking in the user search process and work to retain the position. There are several apps competing for the top ranks and those who are losing their ranking are also missing out on traffic.

E.1 Discover your strengths and opportunities for improvement

Start with the analysis of your app on the points which are within your control. This involves:-

- Analysis of the metadata of your app. If it is an iOS app, evaluate the title, sub-title, keyword content. If you have an Android app, evaluate the name, short description and long description.
- Undertaking Keywords Analysis based on search volumes, difficulty level, usage and installs. Substitute the existing keywords, which are performing sub-optimally, with new ones.
- Analysis of your Creative Assets which include icons, screenshots and app preview/promo videos. For Apple based apps these would also include in-app events and event cards also. These would cover A/B testing.



E.2 Benchmark with Competitors apps

- Identification of key competitors.
- Undertake comparative study on metadata analysis, keyword analysis and analysis of creative assets between your app vis-a-vis the competing apps who are operating in the same market space, category and are targeting a common user base. Find out which keywords they are advertising, from where they are getting the downloads and how much revenue they are generating.
- Identification and implementation of improvement points.

E.3 Research additional information sources

- Ratings and reviews to choose exact keywords and build new app updates
- Conversion rates
- Crash rates
- Implement improvement strategies

CHAPTER 6

General

F. Caveat

ASO strategies cannot substitute for an App's success which:

1. Is operating in a space where the market is not ripe enough. If the market is limited, you will not get the downloads and would just not register sales no matter how hard and accurate your ASO interventions are
2. Is poorly designed and does not appeal to the users.

You may use the ASO strategy to get to the right audience, grab attention, get installs, but the conversion "stickiness" to the App will not be there if the above two conditions, which are a sine qua non for a successful business, are missing.

G. The Art and Science of ASO



What we have covered till now is the science which lies behind the ASO process. More importantly, it is the art of carrying out this iterative process by researchers and experts who have the required specialization of the domain in which you are operating, and have the tools and the resources to make a difference. That is where we come in.

Reach out to us at support@asowin.com or just fill the chat box at www.asowin.com.

Also, write to us about this publication or if you have any queries. We would be happy to jump into a call or connect with you via Telegram - @asowin



Better to hunt with the Lions, than be hunted! - ASOWin