



Competition Landscape In The Search Engine Market

An Indian Perspective

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I. Introduction

The advent of ‘big tech’ has shifted the goalposts of an economic framework in a democracy. Operating cross borders, these entities have redefined the role of technology in an economy through continuous innovation in a democratic framework. With the spread of pandemic, the reliance of the overall governance on the technology infrastructure has further increased thereby further underlying the importance of the Big Tech.

From a winner-takes-all approach to promoting innovation as a policy measure, few tech entities have almost redefined how the internet functions and the larger service sector within. Often referred to as ‘big data’, Big Tech truly symbolizes the scope of economies of scale and the power of big datasets accompanied with data analytics, to change human behavior and define the ‘normal’. The said tech entities, at some level, have revolutionized the economy where when the entire world economy was reeling in the wake of COVID-19, few of them saw a surge in revenues up to 57 per cent¹. This, at a prima facie level, shows a promising picture for an economy at a national level offering wide prospects in terms of opportunities for all. Tech CEOs have been restating how their companies are user-friendly and have nothing-less than-revolutionized how services and innovation in the technology is perceived, thereby exploring the yet undiscovered part of the economy.

¹ Big Tech Earnings Surge During Pandemic While Economy Slumps.
<https://www.bloomberquint.com/business/big-tech-is-having-a-great-pandemic-while-the-economy-slumps>

Competition laws, however, can potentially be termed as ‘Achilles heel’ of the said companies². The goals of economic framework can probably be seen as a tug-of-war between the Big tech entities and various national and international competition laws where the former seeks to define on the basis of growth itself, and the latter seeks to infuse the idea of redistribution though the democratic mandate of the government.

II. Literature Review

The advent of Big Tech has almost revolutionized the digital markets³. Commonly known as the ‘Big Four’ - Google, Facebook, Amazon and Apple - these firms process data of millions of users on a daily basis and collectively contribute \$690 billion to the GDP which is higher than the annual GDPs of most of the national economies⁴. While the rise has been meteoric, the firms have invited antitrust scrutiny from regulators across the globe on an equal basis^{5,6,7}. Few top competition concerns in such markets include search bias, predatory pricing, discrimination against third party vendors, privacy of user data, misappropriation of content and provision of exclusionary conduct through one-sided terms and conditions. While

² Google has made certain words taboo for employees to head off regulators, handle lawsuits. <https://tech.hindustantimes.com/tech/news/google-has-made-certain-words-taboo-for-employees-to-head-off-regulators-handle-lawsuits-71596866746415.html>

³ Op-ed: Big tech stumbled into 2021. Don’t let that distract you from their long-term growth prospects. <https://www.cnbc.com/2021/03/16/op-ed-big-tech-stumbled-into-2021-dont-let-that-distract-you-from-their-long-term-growth-prospects.html>

⁴ Antitrust and “Big Tech”. <https://fas.org/sgp/crs/misc/R45910.pdf>

⁵ What the EU’s investigation of Amazon means for U.S. antitrust probes. <https://www.cnbc.com/2020/11/11/eu-investigates-amazon-what-it-means-for-us-antitrust-probes.html>

⁶ EU accuses Apple of antitrust laws breach after Spotify's complaint. <https://www.businesstoday.in/technology/news/eu-accuses-apple-of-antitrust-laws-breach-after-spotify-complaint/story/438141.html>

⁷ US FTC investigating Google's dominance of the Internet search industry. <https://economictimes.indiatimes.com/tech/internet/US-FTC-investigating-Google-dominance-of-the-Internet-search-industry/articleshow/8138151.cms>

⁸ EU Deepens Antitrust Inquiry Into Facebook’s Data Practices. <https://www.wsj.com/articles/eu-deepens-antitrust-inquiry-into-facebooks-data-practices-11580994001>

in the US and EU context, all the four entities are under scrutiny, in the Indian context it has been majorly Google and Amazon Inc.

The advent of the data economy poses new challenges to the enforcement of competition laws⁹. The data can inherently be classified into two categories, i.e. personal and non-personal data, even though the differentiation between the two is becoming increasingly blurred. The classification of datasets also depend on the source¹⁰. Questions around non-personal data are majorly easy to answer, however the ones around personal data sometimes get a bit difficult. Most of the tools applied to identify anti-competitive practices in a traditional setup may not work in the case of data economy as the prices involved here are almost negligible. It is important here to mention that access to big datasets doesn't necessarily mean market power for an entity. However, it is equally important to understand that access to data is a prerequisite to participate in the market. This has been reported elsewhere¹¹. Access to data can be ensured by public bodies who collect this, more so in the case of non-personal data. Once an entity gains dominant position in the digital markets, it may be said that it is all the more difficult to challenge the same due to features like low marginal costs, network effects, economy of scale, and reliance on data¹². It is in this background it is suggested that courts should adopt a stricter approach when it comes to finding contravention of competition laws in data economy¹³. Questions

⁹ Big Tech, Small Tech, and the Data Economy. What Role for EU Competition Law?

<http://documents1.worldbank.org/curated/en/360561577731546238/pdf/Big-Tech-Small-Tech-and-the-Data-Economy-What-Role-for-EU-Competition-Law.pdf>

¹⁰ As per a report published titled 'Competition Policy for the Digital Era' in the European context, data can be classified under three headers: (1) volunteered data, (2) observed data, and (3) inferred data. Link for the report: <https://ec.europa.eu/competition/publications/reports/kd0419345enn.pdf>

¹¹ Manufacturing a Startup : a case study of Industry 4.0 development in the Czech Republic (English).

<https://documents.worldbank.org/en/publication/documents-reports/documentdetail/498571562044573589/manufacturing-a-startup-a-case-study-of-industry-4-0-development-in-the-czech-republic>;

¹² How to Protect Competition and Consumers in Digital Markets. <https://promarket.org/2019/05/13/how-to-protect-competition-and-consumers-in-digital-markets/>

¹³ Stigler Committee on Digital Platforms: Final Report.

<https://www.chicagobooth.edu/research/stigler/news-and-media/committee-on-digital-platforms-final-report>

around privacy also sometimes lead to competition concerns, even though there is no consensus on the same¹⁴¹⁵.

Any search query can be of three types: navigational, informational, or transactional¹⁶. Navigational queries occur when someone is looking for a particular website but doesn't type the site's full URL. Unless the searcher is specifically looking for a site, it can be difficult to reach the first page of these results. To take advantage of navigational queries buying ads for the keywords one wants to rank for—like the name of your business, for instance. A person makes an informational query when they want to learn something, like background facts on a topic or how to perform a certain task. The searcher isn't usually looking to make a purchase, but the right content often drives them to a particular brand. People make transactional queries when they're thinking of buying something, like a particular product or an item from a broad category. Transactional queries have the most revenue potential, so keywords tend to have a lot of bids for pay-per-click spots. That means that in addition to the organic search results for their transactional queries, people will see relevant paid results, too.

There can be two kinds of listing in search results, i.e. paid and organic. Organic listings earn their place through search engine optimization (SEO), an ever-shifting set of techniques that you can use to help your site rank higher on SERPs. As with paid ads, there should be a high-quality site to get a good organic ranking. The rules, however, are less explicit. Google is constantly tweaking its algorithm to provide the best results, so it's important to stay aware of any new or upcoming updates. There are almost 200 ranking factors outlined by Google for its content creators

¹⁴ REGULATION (EC) No 139/2004.

https://ec.europa.eu/competition/mergers/cases/decisions/m7217_20141003_20310_3962132_EN.pdf

¹⁵ Bundeskartellamt prohibits Facebook from combining user data from different sources.

https://www.bundeskartellamt.de/SharedDocs/Meldung/EN/Pressemitteilungen/2019/07_02_2019_Facebook

¹⁶ The 3 Types of Search Queries & How You Should Target Them.

<https://www.wordstream.com/blog/ws/2012/12/10/three-types-of-search-queries>

with the major being like Domain Factors, Page-Level Factors, Site-Level Factors, Backlink Factors, User Interaction, Special Google Algorithm Rules, Brand Signals, On-Site Webspam Factors, Off-Site Webspam Factors etc. Over the years Google has done five major changes to its search algorithm. Each of these updates had, and continues to have, a significant impact on search engine marketing, on-page search engine optimization, and a site's overall content strategy for best search results.

The first one was the Panda update. Panda uses a search algorithm named after the Google Engineer, Biswanath Panda. In February 2011, the first search filter that was part of the Panda update was rolled out¹⁷. It's basically a content quality filter that was targeted at poor quality and thin sites with little SEO power in order to prevent them from ranking well in Google's top search engine results pages (SERPs).

The second one was the Penguin update. In April 24, 2012, Google released the first Penguin update¹⁸. While the Panda update was primarily targeted at thin and low-quality content, Google Penguin is a set of algorithm updates that puts more focus on incoming links. The Penguin algorithm is a search filter that depends on Google's frequent algorithm updates and attempts to penalize link spam and unnatural links^{19,20}.

The third one was the Hummingbird update. Google released one of the most significant enhancements to the search engine algorithm to date. Hummingbird gives Google a "precise and fast" platform where search users can easily find what they're looking for when they type a given keyword in the search engine.²¹ Rather than treating two similar search queries like completely different entities, Google better

¹⁷ What do the Latest Google Updates Mean for SEO?. <https://www.tmprod.com/blog/2012/what-is-google-panda-and-what-do-the-updates-mean-for-seo/>

¹⁸ Google: Penguin Update. <http://searchengineland.com/library/google/google-penguin-update>

¹⁹ Google Penalty Recovery. <https://sites.google.com/site/recoverfrompenalty/>

²⁰ The Google Penguin Penalty. <https://websiteadvantage.com.au/Google-Penguin-Penalty-Recovery>

²¹ The Google Fred Update: Why It Matters and What to Do. <http://www.seosiren.com/new-google-hummingbird-algorithm/>

understands “what” their users meant instead of what they strictly typed word-for-word. In other words, this update is designed to improve its delivery of results for the specified keyword – and not just the exact keyword itself, but what we call the “keyword’s intent.”

The fourth one was the Pigeon update. Pigeon emphasized the experience of *local* searchers, which is crucial to meeting the needs of users looking for products and businesses on-the-go. For starters, Google meshed the results of their search engine with Google Maps to produce the same results. For example, see what happens when you search “best pizza Los Angeles” in Google. The update rewarded local businesses who integrate geo-specific keywords into their content. Pigeon also boosted Google’s ability for searchers to quickly find nearby businesses without having to search geo-specific terms themselves.

The fifth and the last one was the Fred update. There’s still a lot of question marks surrounding Google’s unconfirmed “Fred” update²². According to Barry Schwartz of Search Engine Land, Google refuses to comment on the update²³. The update is suspected of targeting sites emphasizing revenue over quality content.

It may also be argued that digital markets have led to formation of a new economy. Search engines most of the time operate in synchrony with other products in the digital market like mailbox, mobile application store, navigation services, news portals, online storage services and so on and so forth. It is essential to know that most of these services are free, but still it has a market capitalization on Wall Street of 357.09 billion.

The allegations against the dominant entity in search engine market have been mostly raised by its vertical competitors who say that the said dominance is used to give

²² <https://www.wordstream.com/blog/ws/2017/08/24/google-fred-update>

²³ Did Google’s Fred update hit low-value content sites that focus on revenue, not users?

<http://searchengineland.com/googles-fred-update-hit-low-value-content-sites-aimed-revenue-helping-users-271165>

the company an unfair advantage in these other markets, by giving its vertical services higher and more prominent places in its generic search results, while lowering the ‘Quality Score’ of competitors’ sponsored links etc.

Any search query once entered has to undergo these three processes to show relevant results: a) tracking and indexing; b) Algorithms; c) spamming. In the first part, Google tracks the website present on public domain and adds them to its pre-set indexes according to their content, relevance etc. In the second part, these are computer programs that seek clues to bring you the most relevant results and are based on over 200 unique signals or “cues” that make it possible to guess what someone really might be looking for. These signals include elements such as the terms of websites, content now, region and PageRank. In the third part, these are pages that offer no useful content to the user, or advertising, known as spam. Another question which remains important is how search engines generate money. It is explained how, even though the google services are free for consumers, the true nature of the search engine is in one word, i.e. advertising. When search engines provide ordinary users with a ‘free’ service they gain something very valuable in exchange, and that is user attention. Thus, while web search engines do not charge users, they can retail the attention generated by their service to those who are willing to pay for access to it. People who want to pay are sellers, businessmen, brands etc. In practice to earn revenue, Google collects data on the users search-through many repetitions, and sells advertising space using query keywords. The major source of revenue for Google till date is selling consumer data for advertising.

The structure of the new economic framework is that wherever there is a digital economy, the knowledge economy and information economy are contributing elements to solidly build this form of administration of economic resources, factors of production and activity of economic agents. The factors of production have been amended to take another meaning for the new economy, i.e. the earth/land are the networks and technology platforms on which goods or services are produced. The

capital information, although money can still be considered as an important production factor in the new economy, is the most valuable resource. The labor, in terms of knowledge economy, has made way for the mental abilities and skills for the production of translated into knowledge and information content.

The Indian Competition Act was enacted in 2002 in order to fulfil the larger policy lacunae created by the introduction of liberalization reforms by the Indian government in 1991²⁴. The Act was part of the larger regulatory framework which was introduced in order to encourage private capital in the growth of the economy. One of the landmark shift introduced by the Act was that while its precursor, i.e. MRTP Act, 1969, saw the economy as a whole, the latter saw it on a piecemeal basis where there was a concept of ‘relevant market’ introduced²⁵.

The said concept was a landmark shift because as per an analysis conducted over a period of eleven years, it was realized that the Commission delineated RM while ordering investigation into allegations made for contravention of the Act in almost all the cases²⁶. Therefore for any scrutiny to happen, it is important that the relevant market is defined as per the provisions of the Act so that further analysis can be done.

It is argued elsewhere that to establish contravention under section 2 of the Sherman Act - section 4 equivalent of the Indian Competition Act, 2002 - an entity has to be first established as a dominant one²⁷. For a firm operating in an information

²⁴ Commitment And Settlement Scheme Under The Indian Competition Law: A Step Towards Better Enforcement Of The Law. https://cf9d2836-9a17-4889-b084-bc78a1bb74ee.filesusr.com/ugd/0fa0b3_d6807bce390d462698211f97ab7ebeb6.pdf

²⁵ Section 2(t) and 19(5) of the Competition Act, 2002

²⁶ Out of the 77 investigation orders passed by the CCI from 20th May, 2009 to 15th September, 2020, the Commission delineated RM in 76 cases

²⁷ First-step analysis: dominance in USA. [https://www.lexology.com/library/detail.aspx?g=aaf35f5e-1816-41df-8f8d-](https://www.lexology.com/library/detail.aspx?g=aaf35f5e-1816-41df-8f8d-1cf1307c38c6#:~:text=Section%20of%20the%20Sherman,statute%20that%20applies%20to%20mono)

[1cf1307c38c6#:~:text=Section%20of%20the%20Sherman,statute%20that%20applies%20to%20mono](https://www.lexology.com/library/detail.aspx?g=aaf35f5e-1816-41df-8f8d-1cf1307c38c6#:~:text=Section%20of%20the%20Sherman,statute%20that%20applies%20to%20mono)

intermediary market, market share is not a correct parameter to determine dominance. In a typical sense, market share is assumed as a key parameter to determine market power as it allows a firm to operate with disregard to competition. Even if such a firm violates the law, the small players will not be able to compensate for the unmet demand owing to their small size. However this is not applicable in the search engine market as the competitors – even though with a small market share – have the ‘capacity’ to fulfil the unmet demand in case the dominant player resorts to anticompetitive conduct.

Google has faced multiple allegations of contravening provisions of competition law like manipulating its search results, artificially pushing competitors down in the results and largely serving its own interests than any consumers’. The search results are identified to be of two types, i.e. organic or AdWords sponsored-advertising program results. Potential competitors can rather be demarcated into two kinds, i.e. information providers and vertical search engines. The theory of antitrust claim against google says that when it pushes down vertical search engines owned by its competitors’ in the search, it is not only foreclosure of market for competitors but also consumer harm who would want to see such vertical engines higher in result lists. Such a claim in the US jurisprudence may be analysed under Article 2 of the Sherman Act which penalises violations based on two factors, i.e. possession of monopoly power and willful acquisition or maintenance of that power. The said section can be compared to Article 102 of the Treaty on Functioning of the European Union (TFEU) where the conduct of maintaining monopoly by an entity is penalised. The question which, therefore, emanates is whether search result bias can be termed anticompetitive and extension of monopolistic tendencies by the said entity.

polies.&text=attempted%20monopolisation%2C%20which%20requires%20a,specific%20intent%20to%20monopolise%3B%20and

Market share has been one of the key parameters to evaluate market power. One of the entities operating in the search engine market has been saying that the said phenomenon is not applicable there as ‘competition is just a click away’²⁸. However, there is less discussion on switching and information costs for consumers. As per a research conducted, consumers of a search engine cannot understand or evaluate the quality of information received by search results in a way that would help them justify the option to choose an alternative²⁹. To put it in other words, “its value for the purchaser is not known until he knows the information, but then he has in effect acquired it without cost.”

The Federal Trade Commission opened an investigation in the search engine market against Google Inc. in 2010 to investigate various allegations against it for search bias for its own products. The Commission, through the said investigation, looked into various other questions like possibilities of the said company appropriating content from its competitors without any consent or compensation thereby causing harm. To find out the same, the FTC focused on whether there was a harm to the consumers by such practice or not and is the market affected as whole by such behaviour. The Commission, after 19 months of work and issuing various disclaimers and caveats, found out that it will not file demands with the Department of Justice and signed an agreement with the company where it voluntarily decided to change some practices identified as anticompetitive. It quipped, ‘the aim of the law is to protect competition not competitors’. The FTC, though, found results contrary to its initial intentions expressed. One of the ex-chairmans of the FTC received a letter from one of the US senators stating that the agency should proceed with caution in their investigation against the internet companies as they serve ‘consumer satisfaction’ and create millions of jobs.

²⁸ Google's Larry Page: "Competition Is One Click Away" (And Other Quotes Of The Week). <https://www.forbes.com/sites/davidwismer/2012/10/14/googles-larry-page-competition-is-one-click-away-and-other-quotes-of-the-week/?sh=1d6c1c2f5ea1>

²⁹ Google and Search Engine Market Power. <https://jolt.law.harvard.edu/assets/misc/Patterson.pdf>

The European Union registered a case against Google Inc. in 2009 almost on similar allegations. Among other questions for determination, the EU sought to look into the possibility of bias in the search engine provided by the said firm for its own vertical search services, copying of content from competing vertical search services and offering them to the consumers and so on and so forth. The outcome of the suit was substantial where even though the entity in question agreed to take up a slew of measures, including removing exclusivity clauses from the agreements it signed with publishers for search advertisements and remove restrictive clauses on search advertising campaigns to be run on competing search advertising platform, the EU wasn't convinced and decided to carry on the investigation. Google then agreed to reserve space near the top of its European search pages for competitors to serve specialized search results for things like hotel rooms alongside Google services that do the same thing. In June 2017, the Commission finally concluded its investigation into Google's search business, identifying a clear infringement of Article 102, which prohibits the abuse of a dominant position. After an eight-year investigation and three attempts at settlement, the Commission imposed a EUR 2.42 billion fine, thereby doubling the ceiling on fines against individual firms.

III. Research Methodology

Following research methods are used:

1. Conduct secondary legal research by going through academic papers, reports and journal articles and identify questions of law.
2. Conduct primary legal research by going through bare provisions of the Indian Competition Act and other equivalent competition statutes in other countries, case laws which have happened in the Indian and other jurisdictions related to the Big Tech and identify consistent lines of reasoning adopted by regulators to infuse competition in the Big Tech market.

3. Conduct experimental research by designing a primary survey for the end-users and circulate it among 2,000-3,000 users to understand the perception around the Big Tech and search engine market.

IV. Research Questions

After conducting literature review, following research questions were framed:

1. What is the market structure of the search engine market?
2. Who are the relevant players in the search engine market?
3. Are there any competition concerns which are identified in the search engine market structure?
4. What are the competition concerns which exist in the Indian search engine market?
5. What are the possible structural and behavioral remedies available under the Indian competition law to correct the flaws in the given market structure in line with the goals and objects set under the Indian competition Act?
6. Can there be some alternatives to policy beyond the extant Competition Law framework in India?

V. Analysis

*The three-step process*³⁰

³⁰ Before the three-step process, it has to be established that the questioned entity is an 'enterprise' falling under the ambit of section 2(h) of the Act. However in this case, it is settled that Google Inc. is an enterprise as per the laid down by the Supreme Court in 'Competition Commission Of India vs Co-Ordination Committee' in Civil Appeal No. 6691 of 2014. <https://indiankanoon.org/doc/118036852/>

S. No.	Description	Relevant provision(s) ³¹
1	Step 1: Delineation of ‘relevant market’	Section 2(r), 2(s), 2(t), 19(5), 19(6), 19(7)
2	Step 2: Establishing of dominant position	Section 19(4), Explanation(a) to Section 4
3	Step 3: Establishing abuse of dominant position	Section 4

The three-step process

To initiate any inquiry into the search engine market, it is important to first delineate the ‘relevant market’ as per provisions of the Indian Competition Act³². It is noteworthy that such terminology was incorporated in the current Indian competition law, and wasn’t something present in the original statute, i.e. Monopoly Restrictive Trade Practices (MRTP) Act, 1969. The concept of relevant market further gains prominence in light of the liberalisation reforms introduced by the Indian government in 1991 which were implemented through a host of schemes and statutes to change the regulatory framework and enhance the role of private capital in the growth of the Indian economy. Unlike the license-raj era, the privatisation scheme relies on the ‘expertise’ brought in by the private players and the legislative scheme introduced in the Competition Act, 2002 is an emblem to it.

³¹ In the Indian Competition Act, 2002

³² Explanation(a) to section 4 of the Act talks about definition of the ‘dominant position’ in the relevant market

Under the current law, section 2(r), and section 2(s) and 2(t) of the Act define the ‘Relevant Market (RM)’, and ‘Relevant Geographic Market (RGM)’ and ‘Relevant Product Market (RPM)’ respectively. RGM and RPM are sub-concepts defined under the RM. Section 19(5) of the Act further talks about it. Section 19(6) and 19(7) of the Act delineate the factors which need to be taken into account while determining RGM and RPM respectively. The said provisions are now being interpreted by the Competition Commission of India for more than ten years³³. A conjoint reading of section 2(s) and 19(6) of the Act would suggest that India, as a country, provides uniform policies and homogeneous conditions for various players in the search engine market to operate. There is one nodal ministry at the central level to regulate the said market thereby resulting in uniform trade barriers, procurement policies, distribution costs and other supply-chain logistical support. Therefore it can be deduced that the RGM in the said case would be ‘India’. In terms of RPM, section 2(t) and 19(7) of the Act come into play. Section 2(t) of the Act gains further prominence as it defines what is RPM. Section 19(7) of the Act also remains important as it provides further guidance to the Commission in terms of what are the factors important to it when it comes to determination of the RPM. Section 2(t) of the Act reads as follows:

“...“relevant product market” means a market comprising all those products or services which are regarded as interchangeable or substitutable by the consumer, by reason of characteristics of the products or services, their prices and intended use...”

Section 19(7) of the Act further reads as follows:

³³ Section 3 and section 4 of the Act were only notified by the Indian government on 20th May, 2009

“...The Commission shall, while determining the “relevant product market”, have due regard to all or any of the following factors, namely:—

- (a) physical characteristics or end-use of goods;*
- (b) price of goods or service;*
- (c) consumer preferences;*
- (d) exclusion of in-house production;*
- (e) existence of specialised producers;*
- (f) classification of industrial products...”*

It is important to note that even in the eyes of the Indian Competition Commission, section 2(t) of the Act, i.e. definition of RPM, is quite important. The Commission in, at least, three of its decisions has held that there is a certain test which needs to be conducted while defining RPM. The test is that the purpose solved by the said product market should be ‘unique’, and not be *interchangeable* or *substitutable* with any other product good or service as defined under section 2(t) of the Act³⁴. Even as a corollary to the enactment of the Competition Act, 2002, the question of expertise as envisaged under the overall liberalisation reforms introduced by the Indian government would only make sense if there is some ‘uniqueness’ being offered to the end-consumers. The question of the search engine market particularly reached the Commission in case no. 07 & 30 of 2012. The CCI, while holding that ‘online general web search services (also referred as ‘search engine’ market)’ constitute a separate RPM, said that the same is non-substitutable and irreplaceable with any other service in the market. It is important under this background to know what is the utility of search engines for the end-users. As per section 19(7)(a) of the Act, search engines are used by end-users for different purposes like surfing the internet, entertainment purposes, education activities, reading news, playing games etc. With the advent of various players like Google, Bing, DuckduckGo etc., the said market

³⁴ Case no. 61 of 2010, 07 & 30 of 2012 and 99 of 2014 at the Competition Commission of India

has developed distinct characteristics which separates it from other markets like physical books, newspapers, cinema, gaming apps etc. Even the pace at which the search engine market operates is unique thereby further carving a niche out for itself in the eyes of end-users. As per section 19(7)(b) of the Act, most of the search engine players do not charge an explicit fee from the end-users, and rather generate real estate in terms of grabbing attention of the end-users by collection of their data and then selling them to the advertisers. As per section 19(7)(c) of the Act, ‘consumer’ include both the end-users, as well as service providers which act as intermediary to use products offered in the market for commercial purposes. It may be suggested that both the said categories of consumers may have different preferences in terms of *which* search engine they want to use, the relevant market, as a whole, provides access to a unique set of services to the end-users and consumers to the service providers due to the purpose it solves. As far as section 19(7)(d) and 19(7)(e) of the Act are concerned, it is important to note that there is a certain nuance in the production of search engines (‘online general web search services’) and there are specialised producers available in the market for the same³⁵. As per section 19(7)(f) of the Act, there is a clear demarcation available for the search engine services available in the market thereby further reasserting its unique value and nature. Therefore, the said sub-sections further reassert the unique features of the search engine market thereby giving clear standards to interpret the definition of RPM under section 2(t) of the Act.

Once the RM is delineated, next comes the exercise to understand the structure of the said market in order to assess the competition landscape. To understand the same, an experimental survey was shared with 2,000 end-users and law and policy graduates in the country to inquire the number of players present in the market and their subsequent market share³⁶. The results of the survey showed that the search

³⁵ Google, Bing, DuckduckGo etc.

³⁶ Full results of the survey are annexed to the report

engine market is a highly concentrated one where an overwhelming 94 per cent of the respondents suggested that their first preference is Google Incorporation. What was more revealing that out of 412 respondents, 118 suggested that they have not even tried any other service than what is offered by Google (29 per cent). The two results made it clear that there is not only lack of competition in the search engine market, but there is heavy dependence of the end-users on the product offering of one company in the given market. Under the Competition Act, 2002, Section 4 comes into play which talks about abuse of dominant position. Explanation (a) to section 4 defines ‘dominant position’ in the following terms:

“dominant position” means a position of strength, enjoyed by an enterprise, in the relevant market, in India, which enables it to—

(i) operate independently of competitive forces prevailing in the relevant market; or

(ii) affect its competitors or consumers or the relevant market in its favour.

The change introduced by the Indian Parliament in the legislative scheme of the competition law when the Competition Act, 2002 when compared to its predecessor, i.e. MRTP Act, 1969, is reflective here as well. Even though the new statute talks about competition, the word ‘monopoly’ doesn’t find a mention in it. The nearest corollary to it can be the dominant position as defined above.

Section 19(4) of the Act sheds further light on the factors to be kept in mind while assessing dominance of an entity in a given market structure. The said sub-section lists certain factors which need to be kept in mind while determining dominance of any entity in the delineated RM. Section 19(4)(a) and 19(4)(b) of the Act talks about market share, and size and resources of the enterprise respectively. The said survey results, combined with another report conducted by the Statista, clearly show that

Google has a consistent market share of over 90 per cent³⁷. However the said market share needs to be read with caution. The peculiarity in the search engine market is that the end-users do not pay an explicit fee to the search services provider, and therefore the said market share is only in the terms of *usage* as contrary to *sales*. Therefore, the market share may not reflect the commitment or investment of the users in the product. However, a further look in the said market would inform that the ‘network effect’ is quite pronounced here. It means that unlike market share on the basis of *sales* where it may also reflect the investment of the user in the product, the quality of the search result keeps on improving as more and more end-users keep joining. Therefore, the share in such markets becomes all the more important from the lens of section 19(4)(a) of the Act as once an entity becomes the market leader, it’s position is likely to further propel its growth exponentially thereby further widening the gap between the competitors. Coming to section 19(4)(b) of the Act, the overall size and resources of the company are also increasing exponentially where it observed a growth of almost 100 per cent within a short span of three years³⁸. Size and importance of the competitors, commercial advantage of the questioned entity over its competitors, dependence of the consumers on the said entity and most importantly, high barriers to entry due to the initial investment required are other factors which need to be kept in mind while determining dominant position of an entity³⁹. The survey results clearly show there is a heavy dependence from the end-users side on the offering of Google Inc. and the size and importance of competitors like Bing and DuckduckGo is almost negligible in the search engine or online general web search services market. In terms of initial investment required, it may be important to note that most of the companies operating their own search engines are based out of silicon valley. Therefore it may be prudent to pay reliance on the research happening in the similar context. The said research may further be helpful to understand the overall structure of the delineated relevant market. As per a

³⁷ <https://www.statista.com/statistics/220534/googles-share-of-search-market-in-selected-countries/>

³⁸ Case no. 07 & 30 of 2012 at the CCI

³⁹ Section 19(7)(c), (d), (f) and (h) of the Act

research conducted by Oren Bracha and Frank Pasquale⁴⁰, it was assessed that the structure of the search engine market is quite likely to support the ‘winner-takes-all’ approach⁴¹. It further talks about ‘network effects’ and how it results in further widening of the gap between the market leader and others. This clearly puts other players at a disadvantage as the gap between them keeps increasing, thus raising the initial investment required for any entity who plans to enter this market. All such factors direct towards the independent and monopolistic nature of Google in the search engine market which enables it to operate independently of the market forces and allows it to affect consumers in its favour.

It is noteworthy that the Indian Commission has assessed questions related to the presence of a dominant player in the search engine market in case no. 07 & 30 of 2012 where it held that Google has a dominant position in the relevant market of ‘general online web search services’ in India. The said case law is important as even though there is a dissent note by two members of the Commission on finding contravention of the law, there was a unanimous agreement on the assessment of the dominant position of Google Inc.

Once a dominant position of an entity is established under the Indian competition law, next comes the third and final step, and that is to determine if there is any abuse of such a dominant position. The jurisprudence under the Indian Competition Act, 2002 is clear that dominance in a certain market is not bad, but abuse of such dominance *is*.

⁴⁰ <https://scholarship.law.cornell.edu/clr/vol93/iss6/11/>

⁴¹ Such a proposition was reiterated in the report published by US House Judiciary Subcommittee on Antitrust titled ‘competition in digital markets’ where the Committee held that certain features of digital markets—such as network effects, switching costs, the self-reinforcing advantages of data, and increasing returns to scale—make them prone to winner-take-all economics.

As per section 4 of the Act, abuse of dominant position can be analysed under two headers: a) excessive or predatory pricing practiced by the dominant entity in the market; b) terms and conditions imposed by the said entity on other market players which may be called ‘unfair’ and/or ‘discriminatory’ under the Indian competition law scheme. The scope of this research is to only assess the terms and conditions being imposed on the end-users and service providers by the said entity, and if the same are fair and non-discriminatory in application under the law. Both the words, i.e. ‘unfair’ and ‘discriminatory’, are undefined under the Competition Act, 2002, and for the purpose of this research can be defined in two senses, i.e. first from the perspective of relation the entity shares with the end-users, and secondly with the intermediaries like service providers which use the services provided by the questioned entity to further reach the end-users. The term ‘unfair’ can be further broken into two heads, i.e. ‘exclusionary’ and ‘exploitative’. To understand if certain terms and conditions fall under either of the categories, a basic understanding of the operations of the questioned entity, and more generally of other players in the search engine market, is warranted.

Abuse of dominant position				
Pricing		Terms and conditions		
Excessive Pricing	Predatory Pricing	Unfair		Discriminatory
		Exclusionary	Exploitative	

Abuse of Dominant Position

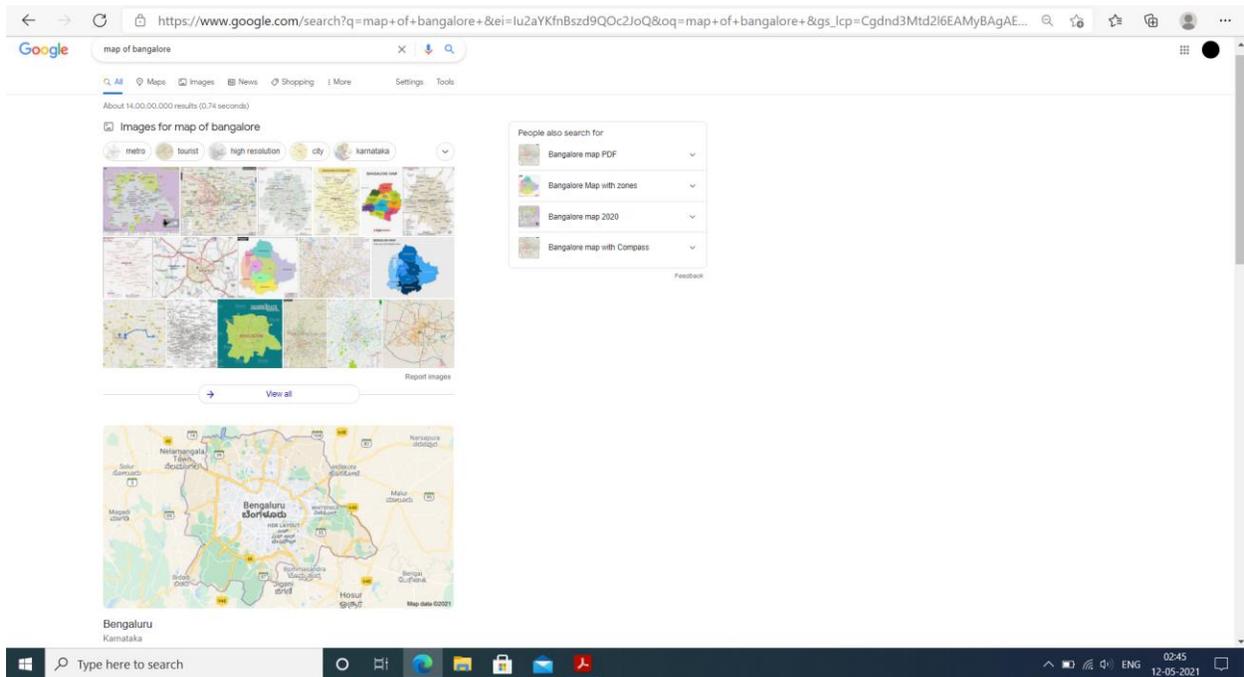
Most of the players operating in the online general web search services do not charge an explicit fee from the end-users for usage of their services. That is, the search engine services are *prima-facie* free, and there is an absence of a seller-buyer relation between the end-users and search engine companies in the conventional sense. However, a closer look on the digital markets would suggest that the search engine companies have a different model for generation of revenues. They monetise the real estate in the form of user attention and their data to sell advertisements to the relevant players in the market. The end-users, therefore, see result pages under two categories, i.e. advertised and organic, and they pay the price for seeing organic results by giving their data to the search engine company and seeing the advertised results in turn.

One of the major reasons end-users utilise search engine services is because they prefer unbiased and neutral information. This is agreed almost across the globe⁴²⁴³. Therefore, once it is established that there is some bias in the search results - more so for the operating company's own products - it must be a direct corollary to the end-users being subjected to unfair terms and conditions. In fact in terms of unbiased and neutral information, it may be said that wherever there is a conflict of interest in terms of Google's own products competing with those for which the search is conducted, there should be a clear disclosure on the screen stating common ownership. Until and unless such disclosure is shown explicitly, it may be argued that the end-user may be duped into Google's own products under the garb of unbiasedness and neutrality. Take for example, search related to a map of a certain geography. If an end-user searches 'map of bangalore', Google automatically displays

⁴² The DG made the said observation in its investigation report conducted in case no, 07 and 30 of 2012 at the CCI

⁴³ Google's founder had itself submitted that their search results are unbiased and objective while filing Initial Public Offering.

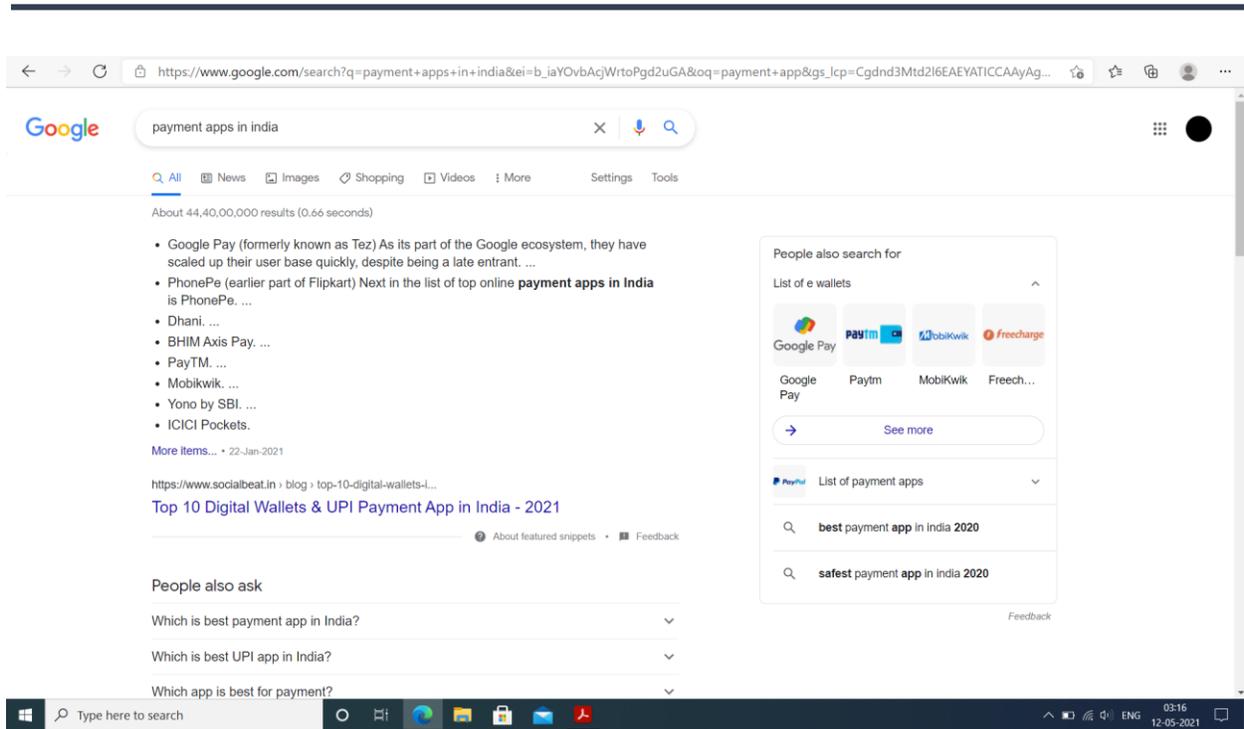
google maps in the result pages, as shown below, with no disclosure that both the search engine and maps are owned by the same entity.



The said entity further gets into the dock because for the similar query, other search engines do not revert the same results⁴⁴.

Another example of bias can be the display of search results in the market of ‘apps facilitating payments through UPI’ in India. On a simple search of ‘payment apps in India’, following result is produced:

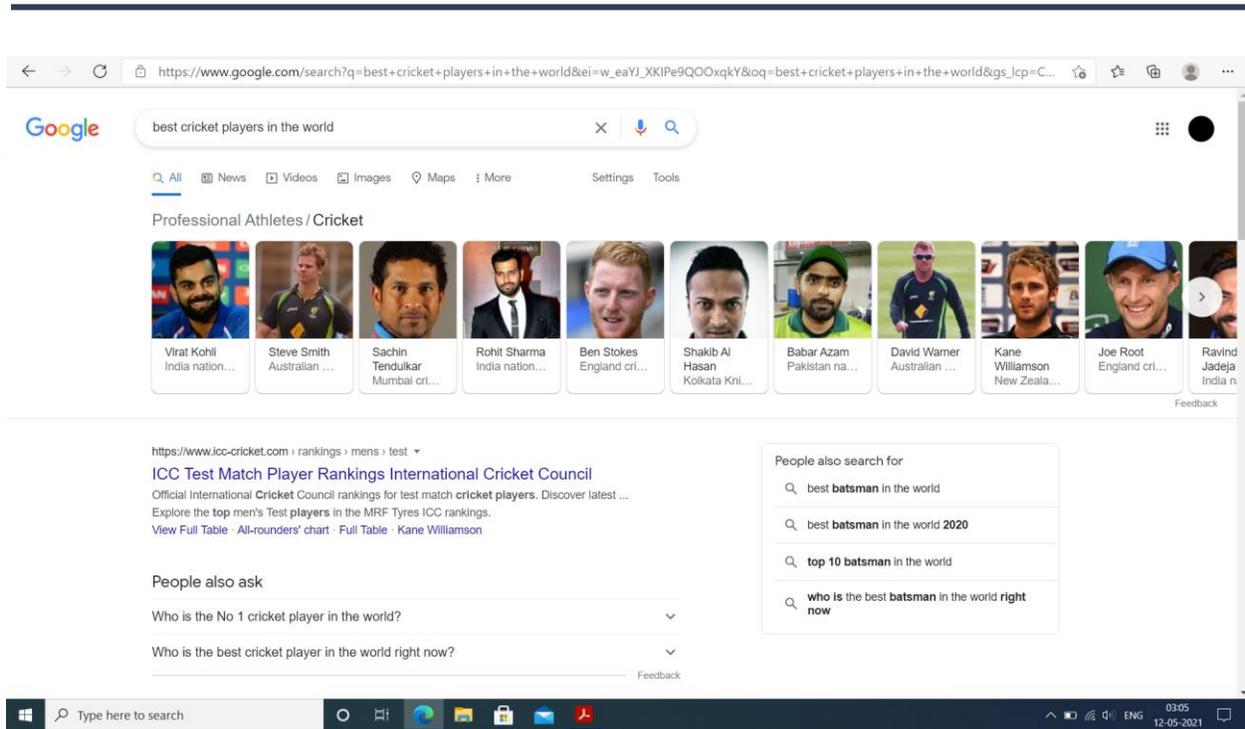
⁴⁴ Bing and DuckduckGo do not show google maps on the result pages



This further shows bias in the search results produced by the said entity for its own products. The said entity further gets into the dock because for the similar query, other search engines do not revert the same results⁴⁵.

Biases can take various forms. Another example of it can be when the end-users are looking for responses to a certain query. For example, a certain user wants to know about the ‘best cricket players in the world’, as shown below:

⁴⁵ Bing and DuckduckGo do not show google maps on the result pages



As it can be seen, Google shows the responses in the form of boxes⁴⁶. There is no mention that the said response is paid or organic. Given that it hasn't been publicized under the advertisement/sponsored category, it may be presumed that it falls under the organic category. But as investigation elsewhere has shown, Google contracts third parties to show such results thereby creating a facade in the eyes of users that the results are produced by its own crawlers and hosts⁴⁷. This, in itself, may qualify as imposition of unfair terms and conditions on the end-users.

The assessment of imposition of terms and conditions on the end-users has to be, therefore, done on the basis of how fair, true, correct and unbiased search results are, as shown by the entity. A related question is what are the factors based on which these results are shown, and if there are any objective standards in the public domain based on which 'relevance' of results is determined.

⁴⁶ Google calls in 'OneBox'

⁴⁷ Investigation conducted by the Director General in case no. 07 & 30 of 2012 at the CCI

Such disclosures become all the more important if the entity in question runs other services in parallel - competitors of which end users are searching information on the same similar engine. It may be argued that such conflict of interest needs to be explicitly communicated to the end-users as they may be under an impression that the search engine is a neutral entity having no stake in the search result pages being shown to the end users (apart from gaining the real estate in terms of user attention and monetising it through the sale of advertisements).

The competition concerns in the search engine market have now been investigated on multiple instances. Few of the top allegations made against the questioned entity, even in the Indian context, are that it tries to promote its own products using search engine results rather than displaying genuine and unbiased results to the end-users. Another key area of concern is the total lack of information on the factors based on which these search results are shown thereby making it further difficult for the competition regulator to conduct any scrutiny on objective standards. A discussion on a few landmark cases and investigation conducted is, therefore, warranted.

Case laws in European Union

One of the landmark decisions on the question of search bias and manipulation has been in the shopping services offered in the EU market⁴⁸⁴⁹. The Commission while finding contravention in the said case law held that Google prefers its own services when it comes to displaying result pages over competitors which leads to protection of revenue which it otherwise has to share with its competitors.

⁴⁸ https://ec.europa.eu/competition/antitrust/cases/dec_docs/39740/39740_14996_3.pdf

⁴⁹ Google Shopping has not yet been introduced in India. However the reasoning adopted by the Commission in the ruling has a significant bearing in the general search results offered by Google in India

European Commission gave a separate ruling on introducing the Premium Placement and Minimum Google Ads clause in Google Services Agreement (GSA)⁵⁰. The Commission in the said case defined two RPMs and while holding contravention of the law stated that such clause results in restriction of the competition as the ‘direct partners’ in the online search advertising intermediation market are unable to source competing search ads. It further added that such a clause may ultimately harm the consumers as: a) this results in ‘high-bidder density’ for Google search ads thereby weakening the constraints on its pricing ability on the advertisers which, at least, in part would be passed on to the end-consumers for the advertised goods or services; b) in the absence of the said clause, users may have had a wider choice of search ads as competing providers of online search advertising intermediation could have served or developed different search ads, at least for certain queries. This could have led to competitors developing a wider choice of search ads in terms of quality or range. The Commission adopted similar reasoning to identify consumer harm through the imposition of Authorizing Equivalent Ads clause in GSA⁵¹.

Investigation conducted in the United States

The US House Judiciary Subcommittee on Antitrust, Commercial and Administrative Law conducted an investigative report into competition concerns in the digital market, including the search engine, in 2019⁵². The report titled ‘competition in digital markets’ was published after a year-long investigation and seven rounds of hearing covering various aspects of antitrust law. The Committee, while holding that

⁵⁰ https://ec.europa.eu/competition/antitrust/cases/dec_docs/40411/40411_1619_10.pdf

⁵¹ Authorising Equivalent Ads Clause required Direct Partners to seek Google's approval before making any change to the display of competing search ads on their search result pages. If a Direct Partner wished to change the display of competing search ads on its search results pages, it had to submit such proposed changes to Google. If Google failed to respond to the Direct Partner within 15 business days, the Direct Partner was entitled to assume that Google had approved the changes. If, however, Google responded to the Direct Partner within 15 business days and refused to give its approval, the Direct Partner could not implement the changes without breaching its GSA with Google (see recital (97)).

⁵² https://judiciary.house.gov/uploadedfiles/competition_in_digital_markets.pdf

Google engages in search manipulation, stated that one of the barriers to competition in the general online search engine market is that the extensive default position Google has acquired with various browsers and mobile devices through integration and contractual agreements. This default position provides Google with a significant advantage over other search engines, given users' tendency to stick with the default choice presented. Google, in fact, in certain cases conditioned access to the Google Play Store on making Google Search the default search engine. Google made sure that it is the default search engine for 99 per cent users in the given geography through mobile phones. It held that Google used its dominance in general search to closely track traffic to competing verticals, demanding that certain verticals permit Google to scrape their user-generated content and demote several verticals. The Subcommittee held that the transition from displaying ten blue links to 'information boxes' by Google allowed it to exploit its dominant position by self-preferencing its content. The Subcommittee held that Google realised provision of vertical search as a threat to its businesses in as early as 2005, and thus adopted a two-pronged strategy to thwart competition. It first started misappropriating third-party content and second, preferring its own services while demoting those of third parties. It indulged in self-preferencing by building its own vertical offerings, and introducing changes which led to privileging Google's own inferior services and demoting competitors' offerings simultaneously. In 2007, Google introduced 'universal search' as a product - the aim of which, at the very onset, was to promote its own content even though it wasn't the best offering. Its search algorithm automatically elevated the ranking of some of Google's services above those offered by rivals. In addition to placing its vertical offerings at the top of the search results page, Google has also actively demoted certain rivals through imposing algorithmic penalties. For example, in 2007 and in 2011, Google launched an algorithm that demoted sites that Google considered "low quality." Among the websites especially hit were comparison shopping providers, which enable users to compare product offers from multiple merchant websites. However, Google did not subject its own

vertical sites to the same algorithmic demotion, even though Google’s vertical services aggregated and copied content from around the web—just like the third-party sites that Google had demoted. Despite the fact that Google’s own comparison shopping service was of such low quality that Google’s product team couldn’t even get it indexed, Google continued to give Froogle top placement on its search results page, listing its results in the OneBox, a display box that Google populates with information on its search results page. The fact that the said product offering by Google was low quality was admitted by the company itself in the documents accessed. The Subcommittee compared the features introduced by Google in 2011 and 2016 respectively and concluded that Google displays results based on what is best for itself rather than the users⁵³. The Committee stated that organic search listings have been pushed down over time, and ‘click-throughs’ (clicking to visit a site) on the first organic results have decreased by two-thirds over the past 3 years. Google has put efforts over the years to blur the distinction between organic listings and paid ads, a natural corollary to which is that users click on more ads and less organic search results.

Case laws in India

Another landmark case has been the matrimony.com case in the Indian context⁵⁴. The majority order in the said decision, while finding contravention on three instances, held as follows: a) the entity prefixes the results shown as part of the ‘Universal Results’ at place no. 1, 4 and 10; b) the entity integrates its Google Flight services with the search engine results; c) the entity imposes exclusivity clause on

⁵³ Prior to 2016, Google’s design of its search results page placed 8 ads to the right of organic search listings and 3 ads above them. Google’s internal communications however showed that as of 2011, the rate of user engagement with right-hand side ads was declining. In 2016, Google rolled out the redesigned page, which eliminated the right-hand side ads while adding a fourth ad above organic listings and 3 at the bottom of the page.¹¹⁹¹ The practical effect of adding a fourth ad at the top of the search results page was to push organic listings further down, requiring users to scroll down further before reaching a non-paid result.

⁵⁴ Case no. 07 & 30 of 2012 at the Competition Commission of India

publishers via negotiated search intermediation agreements through which they are prevented from availing search services from competing entities. On the first count, the Commission observed that such pre-fixation is contrary to what the company has been saying elsewhere that it shows results based on the relevance. Even though Google Inc. has taken a defence that its systems were not sufficiently advanced to conduct such a relevance comparison for all positions on the result page, it failed to produce concrete material in that regard, and therefore it results in imposition of unfair terms and conditions on the end-users. However, the said contravention was only found by the Indian Commission in relation to Google's policy prior to 2010, and post that the company changed its search algorithm and the results were made 'free-floating', i.e. search results were allowed to appear at any position in the result pages. The majority order did not assess if the said change is in compliance with the Competition Act, 2002. On the second count, the Commission held that such integration and subsequent placing on top of the search pages results in disproportionate allotment of space to Google's own products thereby diverting important traffic on its own pages. This denies the third parties even the opportunity to be displayed on that key real estate thereby resulting in anti-competitive practice in terms of reduction of options available to the end-users to choose from equally performing competitors. On the third count, the Commission held that the exclusivity clause in the negotiated search intermediation agreements not only deny market access to competitors operating in the search engine market, but also demonstrate how Google abuses its dominant position in one market to strengthen its position in another⁵⁵. It is important to note that the minority order failed to agree at all the three places with the majority order. The minority order, while disagreeing at the first instance, held that it is an admitted position that Google shifted to the fully-floating regime well before the Information (complaint) was filed in the case, and even though it will not like to comment on the contention raised by Google Inc. in relation to technical feasibility of conducting a relevance comparison

⁵⁵ Section 4(2)(e) of the Competition Act, 2002 prohibits such a conduct

for all positions on the result page, and this in itself be a ground for obviating the need for any regulatory intervention from the Commission's side. In the second case, it held that the determination of infringement cannot be in the abstract and the onus is on the Commission to prove if unfair terms and conditions have been imposed on the consumers. There needs to be an objective test which should be conducted and the investigation failed to do so. In the third case, it said that the publishers' views were of paramount importance in forming a conclusive view on the desirability of multiple search functionalities on the same website, and the investigation failed to do so. The order presumed that the said publishers generate larger volumes of search queries, and therefore they will have countervailing power while negotiating the terms of agreement.

A conjoint reading of the said three case laws, along with the investigation conducted by the US House Judiciary Subcommittee, would suggest that Google Inc. enjoys near-monopoly in the search engine market. Once an entity is established as a dominant player in the given RM, there are certain responsibilities which the said entity has to fulfil under competition law jurisprudence. The same was discussed in, at least, two case laws discussed above⁵⁶. It is equally imperative to understand that the goals of competition law is consumer welfare and therefore questions related to search bias and manipulation have to be understood from the perspective of consumers as contrary to producers^{57,58}. It cannot be gainsaid that consumers look for unbiased and neutral results using search engines. However, as it was held in the said case laws, Google is far away from the responsibility placed upon it as a dominant position. There are multiple markets where the search result pages are marred with conflict of interest and products owned by Google are competing with

⁵⁶ Case no. 07 & 30 of 2012 at the CCI and AdSense case in Europe

⁵⁷ Competition Commission of India and Consumers' Welfare: An Analysis.

https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2252526

⁵⁸ Big Tech, Small Tech, and the Data Economy. What Role for EU Competition Law?

<http://documents1.worldbank.org/curated/en/360561577731546238/pdf/Big-Tech-Small-Tech-and-the-Data-Economy-What-Role-for-EU-Competition-Law.pdf>

those around which the consumers are conducting online search. Google Inc. issues no disclosure to the users about the common ownership of the products - sometimes shown on top of the result pages. This creates a facade of neutrality in the eyes of consumers thereby resulting in their manipulation. The goals of competition law pay equal emphasis on the entities' ability to innovate, however as it was analyzed in the House Judiciary Subcommittee report, Google has been using the innovation tag to either blur the gap between paid and organic results, or push its own services. There is virtually no check on Google's growing clout in the search engine market as the digital market economics is heavily tilted towards a winner-takes-all approach. In all the three case laws, the regulator imposed monetary penalty on the said entity, however the efficacy of it may be disputed. This may require the regulators worldwide, as well as in the Indian domain, to do some rethinking and come up with innovative solutions to reduce the imbalance and create a fair playfield for all the given players.

VI. Conclusion

The search engine market in India is a highly concentrated one. There is heavy dependence of the end-users, as well as intermediaries, on the services provided by the identified dominant player in the given market thereby almost monopolising it. The peculiar market structure of search engines suggests that normal constraints applicable on a player in an economy aren't applicable in this case thereby resulting in heavy concentration. There are high barriers to entry and it is virtually impossible for any new entrant to question the dominance of the identified entity. The search algorithm used is like a 'black-box' whose confidentiality is ensured by virtue of being a 'trade secret'. The results produced by the identified dominant player are far from unbiased and neutral from the perspective of consumers, and the said entity is penalised multiple times across the globe on similar counts.

VII. Recommendations

As concluded, market forces have failed to put competitive restraints on the operations of the said dominant entity. Therefore, it is reasonable for the Indian Competition Commission and the policymaker to intervene and protect competition in the said market. Following recommendations are made to them for intervention:

1. **Suo moto disclosures:** The Commission can invite the said entity for consultation and discuss the evidence unearthed against it through this report and other investigations. The Commission may understand the said entity's position and explore the possibility of having disclosures issued by it either to itself, or to the larger public, around its search algorithm and the factors based on which 'relevance' of result pages is determined. In the case where Google's own products are competing in markets in which users are conducting search, it may be asked to issue a disclosure to the consumer about the same through a prominent tag like it currently does for advertisements. Google may also be asked to devote a separate portion of the real estate it has in terms of top-left of the search pages for competitors so that the choices of the consumer are not restricted, and at the same time competitors also have access to the users.
2. **Behavioural Remedies:** There are currently two competition investigations pending against the said entity in related markets⁵⁹, and the Commission has suo moto powers under the Act to initiate an inquiry against any economic enterprise for contravention of the law in the country⁶⁰. The Commission, thus, may either find contravention in the ongoing investigations or initiate a

⁵⁹ Case no. 07 of 2020 and Case no. 39 of 2018 at the CCI

⁶⁰ Section 19 of the Competition Act, 2002 gives suo moto powers to the CCI

⁶¹ The Commission cannot look into economic entities which are carrying sovereign functions of the government

new case to impose the said suggestions on the said entity in case it fails to cooperate during the consultation⁶². The Commission may also look into imposing a monetary penalty of up to 10 percent of the annual turnover on the contravening entity as a behavioural remedy⁶³.

3. Structural Remedies: The Commission may order division of the said entity based on the relevant markets it operates in under the provisions of the Act as a structural remedy⁶⁴. The Commission can also appoint an administrator over the company who will look into the designing of the search algorithm and timely changes which it introduces, determining the positioning of search results. The questioned entity has been defending the said opaqueness under the pretext of ‘trade secret’ and the subsequent private interest it serves. What remains, however, of paramount importance is the consumer welfare in the entire process and the provision of equal opportunity to all the economic players operating in the market.

VIII. Limitations

Following limitations were encountered while conducting this research:

1. There is scope for the state to regulate market forces for efficient allocation of economic resources.
2. The search algorithm used by the said dominant entity is like a ‘black box’ about which it does not intend to pass on any information in the name of artificial intelligence to the regulator or researcher.

⁶² Section 27(a) of the Competition Act, 2002 empowers the Commission to direct any enterprise involved in abuse of dominant position, to discontinue such abuse of dominant position

⁶³ Section 27(b) of the Competition Act, 2002

⁶⁴ Section 28 of the Competition Act, 2002

3. The role of experimental data is only to support the primary and secondary research conducted. It, in no way, is a substitute to any of them.

IX. Pointers for Further Research

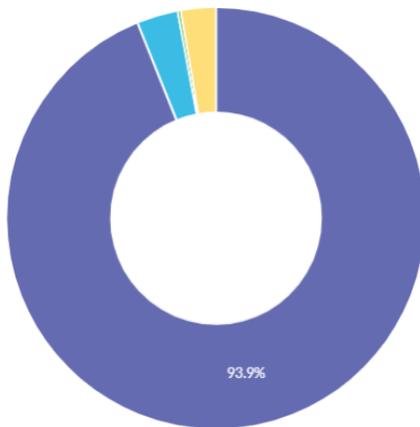
Based on the research conducted, it was realised that there are few areas which can be further explored. These include:

1. The said entity runs at least ten intermingled products in markets like licensable smart mobile device operating systems, video surfing platforms, mobile application store, mailbox, navigation services news platforms etc. It can be studied if there is any impact of dominance of the said entity in the search engine market on them and allied competition concerns. Section 4(2)(e) of the Competition Act, 2002 specifically prohibits such a conduct.
2. A discussion can be held with the current and former Google employees who have worked in the development of the search algorithm to identify the factors based on which relevance is determined, and how it executes search manipulation.
3. Impact of data privacy laws on competition.

X. Annexure

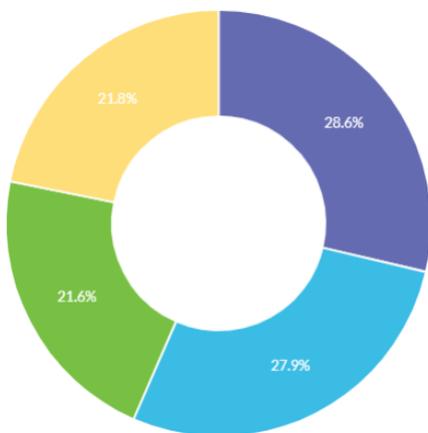
Experimental Data:

Q3 Which search engine do you use on the Internet?
Multiple Choice



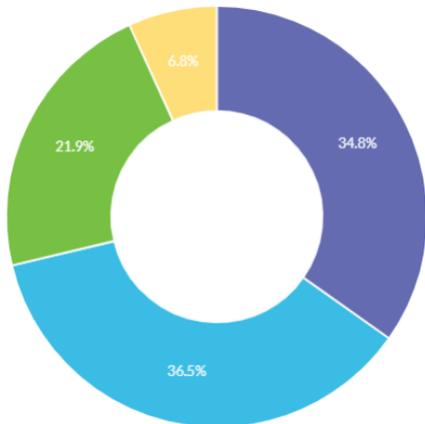
Choice	Total
Google	384
Duckduck go	13
Bing	1
Others	11

Q4 How many search engines have you used till date?
Multiple Choice



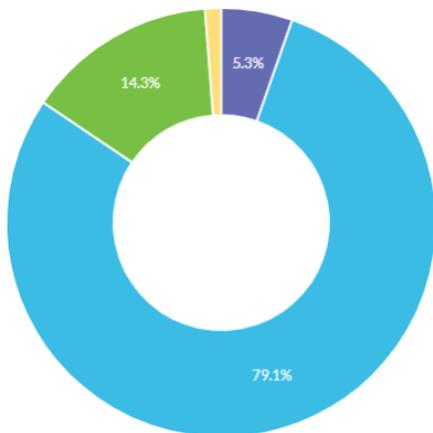
Choice	Total
1	118
2	115
3	89
4 and plus	90

Q5 How likely are you to travel to the second page of search results?
Multiple Choice



Choice	Total
Rarely (1-3%)	143
Sometimes (25%)	150
Often (65%)	90
All the times (95-100%)	28

Q6 Do you like to see advertisements while seeing search engine result pages?
Multiple Choice



Choice	Total
Yes	22
No	326
Sometimes	59
Don't know	5

Unanswered
0

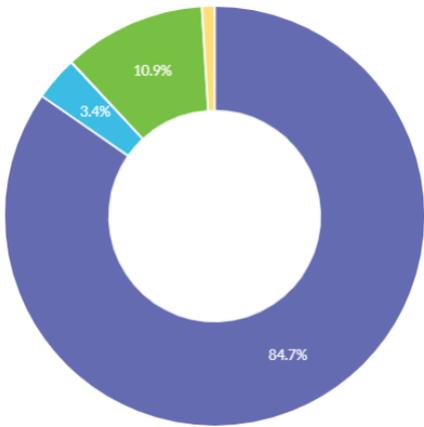
Answered
412

[See all answers >](#)

Q7

If given an option, would you like to know how the search engine produces results?

Multiple Choice



Choice	Total
Yes	348
No	14
Maybe	45
I don't know	4

Unanswered
1

Answered
411

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