

THE USE OF DISCRIMINATORY ALGORITHMS THAT RESULTS IN UNFAIR COMPETITION

Chaiwat Malaruk*

Introduction

In the purchase of goods and services, consumers can buy the products at a physical store by themselves or make a purchase at online store through internet. Internet and social network are part of a business, as convenient tool to make the process of marketing or trading faster, more convenient and more efficient. The sellers can conduct their transactions via the internet and social network, such as web browsers, Line, Facebook and search engines. These business activities are called “electronic commerce” (e-commerce). Electronic Transactions Development Agency (Public Organization), ETDA, collected data in 2016, said that “the value of e-commerce in 2016 has grown by 9.86% and is projected to increase almost 10% in 2017, the highest among Association of Southeast Asian Nations (ASEAN). There are many opportunities for growth in the future.¹” Therefore, e-commerce has become important for the Thai economy. For the convenience of consumers and the speed of searching for goods and services, there is an agent website gathering information about goods and services from various sources for users. These websites collect the information of the same products into a single database and provide consumers who are interested in any products an easy way to find goods and services. This system is called a “search engine”.

* This article is compiled from the study Paper, “The use of discriminatory algorithms that results in unfair competition: focusing on Sections 50 and 57 of the Trade Competition Act, B.E. 2560 (2017),” submitted in partial fulfillment for the Degree of Master of Laws (Business Law Program) Graduate School of Law, Assumption University, 2018.

¹ Electronic Transactions Development Agency, Thailand e-commerce in 2016 and forecast in 2017 (29 September 2017), at www.etda.or.th/content/value-of-e-commerce-survey-in-thailand-2017.html, (last visited 13 March 2018).

A search engine is a program for helping consumers search data for goods, sales, and offers to sell of the sellers. When consumers put the search terms on a search engine, it displays the related websites. The working system of the search engine, it uses algorithms to be the tools for calculating the search engine results. The algorithms will search data in their database or all of the websites on the internet that are related to search terms and give the quality score to every website.² The search engine providers will assign the instruction set to calculate the quality score, for example, the compatibilities with searching words, clicks, number of visitors from other websites, product updates, demand and attention of the market.³ The high-quality score of websites or products will give more opportunities to be on the first list appearing when the consumers search for products. This system will encourage the sellers' effort to develop their products and websites to reach the high-quality score to make their products easily visible to consumers. This is the best way for competing in e-commerce. However, when e-commerce has much competition, and the sellers wants to make the most profit, it results in some sellers who do not want to compete with the quality score, but find another way to make their products appear on the top of the search engine results page.

The search engine has search results divided into two types which are "*the organic search result*" and "*the paid search result*". The organic search result is a normal search result. The search output calculated from the quality score is uninfluenced by any conditions. The paid search result is the search result of sellers who buy an advertisement. It usually appears above or right of organic search results. It has the label informing consumers their nature as advertisements. The conduct that may make unfair competition occurs when the search engine providers change the instruction set to give special scores to their products or website of the sellers who buy their advertisement.

Generally, the changing the instruction set and give special scores will not make unfair competition if the search engine providers disclose the differentiation to

² Quality Score: What Is Quality Score & How Does It Affect PPC?, at <https://www.wordstream.com/quality-score>, (last visited 13 March 2018).

³ Rolfbroer, [Search Engine Algorithm Basics](https://moz.com/blog/search-engine-algorithm-basics) at <https://moz.com/blog/search-engine-algorithm-basics>, (last visited 13 March 2018).

consumers. However, the research of the search engine resulting manipulation⁴ showed that if any consumers knew the search result was advertisement website, they tended not to look for products on that websites. Because they usually think paid advertised websites are not at the top of the search result by the quality scores of products. Therefore, the search engine providers ordinarily change the instruction set by unrevealing in order to make the website of the sellers who buy their advertisement to be on the top of the search result page. Moreover, search engine providers have another conduct that sends their competitor's website to the location which is hard to see. Their conducts lead to unfair competition in the market.⁵ In this study be called these conducts: *“the use of discriminatory algorithms that results in unfair competition”*.

The Problem

The use of discriminatory algorithms that results in unfair competition is discrimination and damages competitor's business because they will lose a chance to present their goods or services. The losing chances to sell products may have the unclear damages. However, the survey results of European Commission for Competition⁶ found that the number of viewers on the website on the top of the organic search gave ninety percent (90%) chance to access products on the top of the first page and five percent (5%) of accessing those below the first page. The page two to four is less than two percent (2%). Therefore, the differences of amount consumers which access to the sellers' website may affect business profits of the sellers. This conduct will stop the

⁴ Pepijn J. P. Niesten, Legal status of search engine result manipulation (Tilburg University - Tilburg Law School Tilburg Institute for Law, Technology, and Society (TILT), 2012), p. 32.

⁵ Jakkrit Kuanpoth Rights in the Information Technology Era and Options for Thailand, p. 37.

⁶ European Commission Competition, Antitrust: Commission fines Google €2.42 billion for abusing dominance as search engine by giving illegal advantage to own comparison shopping service—Factsheet, (Brussels, 27 June 2017), at [http://europa.eu/rapid/press-release MEMO-17-1785_en.htm](http://europa.eu/rapid/press-release_MEMO-17-1785_en.htm), (last visited 13 March 2018).

sellers from competing with the quality of products or website, but they may choose to invest money to buy an advertisement instead. When sellers give their money to buy the advertisement, they will surely increase the price of the products and do not put the investment on the innovation.

For all reasons, it makes *the use of discriminatory algorithms that results in unfair competition* adversely affect the public and the economy as well as consumers of related products. Therefore, it would be necessary to prevent and suppress this matter. The incident of this issue occurred in Europe, as seen in CASE AT.39740 Google Search (Shopping), Antitrust Procedure Council Regulation (EC) 1/2003, 27.6.2017. This case is referred as “The European Commission vs. Google” case.⁷ This may occur in Thailand as well. Due to this incident, it would be crucial to study and analyze to see whether Thai legislation related to anti-monopoly suffices to suppress *the use of discriminatory algorithms that results in unfair competition*. To reach this objective, the facts in the European Commission vs. Google case will be used as the base case for the analysis of the Thai law.

The Use of Discriminatory Algorithms that Result in Unfair Competition

The advantage of search engines is that consumers or users can find the product data that they need quickly and accurately. Consumers who look for goods and services will put their product names into Web Search Engines. Then, they will receive the information of the product, for instance, the price, quality, and image. All of the product data will help consumers decide to buy the products that have good quality and the lowest price. The most popular search engine in Thailand is Google. In the foreign countries, there are many search engine service providers, like Yahoo, MSN, Bing, and AOL. If the consumers want to find any product, they will visit the search engine website to find the product that they want. They will put in search terms in the search box and then press the search button. Information related to words and merchandise will appear as a sort of result on the screen. It often appears on a list from top to bottom. They are called search results. Search results are sorted base on the

⁷ European Commission Competition, CASE AT.39740 Google Search (Shopping) Antitrust Procedure Council Regulation (EC) 1/2003, (27/06/2017) at http://ec.europa.eu/competition/antitrust/cases/dec_docs/39740/39740_14996_3.pdf, (last visited 13 March 2018).

searching and ranking algorithms. Each search engine will have different processing and ranking systems of algorithms. Therefore, it is concluded that, from the search engine system, all the advantages that consumers will get in searching will receive when the consumer receives the actual information only.

Receiving the actual information does not mean that they will get accurate information about goods and services. It must include the fact that consumers can access all the information and sales offers that are available in the database. Consumers must have equal access to the information of every seller in the system. Moreover, access to that information must not be restricted by any system that makes consumers unable to access products or services of a particular seller. Even if the access to goods and services cannot prove that the product which shows in first result page is good or bad products, but the calculation and display must be accurate and fair for every seller. Search engine providers have a right to disallow some sellers who cannot follow the terms of entry into the database. However, if the sellers have complied with the rules and in measuring quality, the seller's product should be in a high quality to be seen easily in the search result.

Based on the above reasons, this study summarizes the behavior of search engine providers as follow

1. search engine providers set a seller's webpage with a high-quality score to a wrong listing of the search result page. This conduct damages the sellers directly. It is a contrary behavior to the direct trade competition.

2. a search engine provider wants to persuade a seller to buy an advertisement, the search engine provider will assign an advertiser's webpage location to a specific position for easier access in the search result. Even though it is considered discrimination, it is not against the law, because the search result of such advertisement has been tagged specifically in a position known to be the advertisement. This conduct will be the use of discriminatory algorithms when search engine providers give the special score to the sellers who buy advertisement without disclose to the consumer.

The Scope of the Unfair Action

From the definition of fair and unfair competition, this study found that the definition of fair and unfair was unclear, either from various businessmen and lawyers viewpoints or its meaning. Thus, finding the definition of unfair competition is difficult because it depends on individual opinion. The word "fair" may mean to be fair for some

people but unfair to the others. Therefore, the definition of unfair competition by the use of the algorithms in the search engine must be limited.

This study agrees with the definition of the black law which says that ‘A term which may apply to all dishonest or fraudulent rivalry in trade and commerce.’ If considering the case study the action of search engine providers in positioning their product on the search result page is an act of not guilty of their own. Thus, by the sale of goods and services, it is normal that the store is prominently positioning the specific product that the store needs to increase sales. Although these actions are unfair, they are not illegal. Then, it does not mean the action which is unfair must always be illegal.

The actions of search engine providers that set up algorithms to give the advantage to their merchandise or sellers' products that buy advertising are normal behavior of search engine providers, so it is not an unfair action. The actions of search engine providers will be unfair if search engine providers abuse the terms agreed with the sellers or change instruction set by undisclosed. This behavior can be divided into two categories.

1. The sellers agree that his / her product appears in the search engine database. This is the case where the sellers agree to comply with the contract of the search engine providers through an electronic arrangement where the sellers click the button “I agree to terms.” Most of the conditions are that the sellers must comply with the terms of the search engine providers by making the web page or product pass the criteria set. The result is that the seller's product will appear in the search engine database. In this case, though, there is no precise definition of how the algorithms work, but it can be assumed that every seller is in the same status and conditions in the competition. Therefore, regarding to the regular search, every seller will be under the same conditions that measure the position of the product through the quality score. If the quality score is high, the products will be in a good position while the low-quality score, products will be in a bad position. This process creates a competitive edge for sellers that need to create a high-quality score for their website or product.

Unfair Competition will happen when search engine providers change the instruction set without informing the sellers. It is an action where search engine providers secretly change their scoring system to make the quality score not match with reality. This action results in an unfair advantage for some sellers. It is a discriminatory action by trade barriers and affects sales of other sellers.

2. In the absence of contracts between search engine providers and sellers, it is the case that the sellers create a website selling their product and the website will enter the search engine database automatically. It has no agreement, but consumers know that the search engine system divides into two parts, as parts of sellers who buy advertisements, and regular sellers. In the ordinary sellers' category, if there is an abuse algorithms, it is a good idea to consider whether it is an unfair competition.

The next thing to consider is "Is this conduct a legal offense?"

It can conclude the action of search engine providers is unfair to other sellers. However, even though the action will result in the unfair competition, it is not necessary that the unfair competition be illegal. The law of the European Union calls the competition law because the European Union does not focus on fair or unfair action. The European Union specifically focus on where the action will affect trade competition in the manner that the law should prohibit. Unfair competition is illegal when the law states that the unfair competition is unlawful. The laws in many countries, including Thailand, defined the unfair competition as the forbidden acts which prescribes in the 2017 Trade Competition Act.

Relevant Law

From the study of relevant laws, including the 2017 Trade Competition Act⁸ and the 1979 Consumer Protection Act.⁹ This study has found no legal provision in 1979 Consumer Protection that is directly related to this study because the effect of the discriminatory algorithms directly damaged the sellers. Only the sellers can clearly prove the damages. In the case of consumers, the effect they get is that they could lose their opportunity to choose the best product. In European Commission vs. Google case,

⁸ Office of Trade Competition Commission, "The 2017 Trade Competition Act." (2 July B.E. 2560(2017)), at <http://otcc.dit.go.th/wp-content/uploads/2015/02/2560-09-26-Translation-Trade-Competition-Act-2017.pdf>, (last visited 13 March 2018).

⁹ World Intellectual Property Organization, "The 2522 Consumer protection Act." (30 April B.E. 2522(1979)) at <http://www.wipo.int/edocs/lexdocs/laws/en/th/th026en.pdf>, (last visited 13 March 2018).

European Commission claims that it prosecuted Google for protecting consumers¹⁰, but in litigation, the sellers are the injured party only. It is concluded that the suppression of the use of discriminatory algorithms aims to protect the sellers from unfair competition. Hence, this study focuses on the 2017 Trade Competition Act, sections 50 and 57, which are likely to be effective in enforcing the behavior of search engine providers.

The 2017 Trade Competition Act (especially Sections 50 and 57) may be employed to suppress an unfair or anti-competitive act such as *the use of discriminatory algorithms that results in unfair competition*. Unfortunately, the law does not define the terms “unfair” and “anti-competitive” contained therein. In addition to the lack of the definitions of the terms, because there is no trade competition cases have been submitted to the Thai courts, no interpretations by the judiciary of the terms are available.

Therefore, this study aims to study the judgment and the trade competition law enforcement in other countries to define the terms “*unfair*” and “*anti-competitive*”. South Korea's trade law has the greatest influence on the drafting of the Thai Trade Competition Act. This is due to the structure of the economy, and the level of industrial development in South Korea which is not quite different from Thailand. The study found that South Korea's trade competition law had been guided by the law of trade competition of the European Union. As a result, this study will study the European Union competition law, which is the drafting model of South Korea and Thailand.

Analyzing Anti-competitiveness of a European case and the Thai law

Intel Corporation v Commission: Primary producers use market power to force customers or contractors not to do business with competitor companies. It is considered anti-competitive regarding trade barriers and reduces competition.

Ford Werke AG, Ford Europe Inc v Commission: The parent company uses power to force dealers not to accept their orders right-hand-drive cars from the customers in different areas. It is considered anti-competitive regarding the selective distribution system.

¹⁰ Commission, Antitrust: Commission fines Google €2.42 billion for abusing dominance as search engine by giving illegal advantage to own comparison shopping service – Factsheet, (Brussels, 27 June 2017) at http://europa.eu/rapid/press-release_MEMO-17-1785_en.htm, (last visited 13 March 2018).

Pierre Fabre v President de l'Autorite de la concurrence: Business operator prohibits distributors from selling products online. The pharmacists must be the sellers in physical space only. Although their products are not classified as medicines. It is anti-competitive regarding vertical agreements and selective distribution.

PO/YAMAHA Case: YAMAHA entered into a distribution agreement. Dealers must contact YAMAHA before exporting the product over the Internet. It is impossible for partners to export via the Internet and to supplement their market shares. It is anti-competitive regarding vertical agreements and restricts competition.

Pronuptia de Paris GmbH v Pronuptia de Paris Irmgard Schillgallis: The franchisor prohibits franchises expanding stores. It is the use of superior power that forces franchises to fall under the terms of market segmentation. It is anti-competitive regarding vertical agreements and restricts competition.

British Airways v Commission: Both lawsuits have action regarding discrimination. They met the targets for sales growth led to an increase in the commission paid on all tickets sold by the travel agent, not just on the tickets sold after the target was reached. This action is a privilege for travel agents. It produces discrimination between travel agents and produces an exclusionary effect on competing airlines. It is anti-competitive regarding discrimination.

The appearance of anti-competitiveness in the European Union showed similar characteristic between the use of discriminatory algorithms and behaviors of conducts in other cases. The specific character is that the wrongdoer is always in the position of superior bargaining power. The word 'superior bargaining power' does not only mean superior bargaining power over the market but includes superior bargaining power over a competitor because they can control and intervene injured party's businesses. For example, Google which is a general search services provider uses could use their power to intervene and decrease competition in the injured party's market. Although, Google is not in the product market but its conduct as a search engine providers with superior bargaining power can control search engine program independently and enable the control of customers' target goals It can be said that Google can control the product market from their services. Google can set instruction and pattern to support their products or promotion to make someone pay for an advertisement.

In generally the conduct of Google is not illegal, but if Google uses their power to break the rules or abuse the business of the sellers in some way, it can be said that it

can lead to a significant impact to the sellers' trade and therefore be illegal. For cases of comparative website of shopping services, sellers and search engine providers generally have a relationship binding through a contract. Naturally, there will be vertical agreements just like in the cases of *Ford Werke AG, Ford Europe Inc v Commission*, *PO/YAMAHA*, and *Pronuptia de Paris GmbH v Pronuptia de Paris Irmgard Schillgallis*.

Moreover, when we looked at the *British Airways v Commission* case, discrimination can be a character of anti-competitive, but it still can damage and be an disadvantage to the injured party. In the case of *British Airways v Commission*, injured party's incomes has been decreased while there was an increasing chance to make more money for travel agents. This is similar to what search engine providers did. The discriminative act of search engine providers is that they will show a seller's website on the first page's result when he bought advertisements. This action will affect business profits of other sellers and is considered discriminatory because it will be more difficult to find the website of some other sellers. In conclusion, if the actions of the search engine providers is discriminative as in benefitting some groups of sellers and cause damage to other parties it will be anti-competitive to both general search services and comparative shopping service websites. Therefore, if such a case occurs in Thailand, it would be considered to comply with Section 50 and Section 57.

Based on a study of all European cases mentioned above. This study can conclude the group of anti-competitive conduct as following.

Section 57(1) unfairly obstructing the business operation

1. trade barriers and reduces competition.
 - 1) Intel Corporation v Commission
 - 2) set a seller's webpage with a high-quality score to a wrong place
 - 3) give special score to sellers who buy advertisement without disclose
2. vertical agreements and restricts competition
 - 1) Pierre Fabre v President de l'Autorite de la concurrence
 - 2) PO/YAMAHA Case
 - 3) Pronuptia de Paris GmbH v Pronuptia de Paris Irmgard Schillgallis
 - 4) set a seller's webpage with a high-quality score to a wrong place
 - 5) give special score to sellers who buy advertisement without disclose

Section 57(2) superior bargaining power

1. discrimination

- 1) British Airways v Commission

- 2) give special score to sellers who buy advertisement without disclose

From the analyze concludes that Section 57(1) can suppress both conduct of search engine providers (set a seller's webpage with a high-quality score to a wrong place and give special score to sellers who buy an advertisement without disclose). However, Section 57(2) can suppress only cast that give special score to sellers who buy advertisement without disclose.

Conclusion

Section 57 (1) states that it prohibits ‘unfairly restricting the business operation of other business operators.’

The 2017 Trade Competition Act regulates in Section 57 (1) that a business operator shall not obstruct the business operation of other business operators. This provision concerns the forbidden actions which are anti-competitive, using market power and unfair actions. Anti-competitive in general means the actions of any business operator making another business operator unable to trade products or doing their business smoothly and causes lack of free and fair trading. Moreover, an anti-competitive action may destroy, cause loss or terminate another business operator from running their business. The use of discriminatory algorithms can be a search engine provider's tool in obstructing and decreasing competitive abilities of competitors. For this reason, Section 57 (1) of the 2017 Trade Competition Act Section 57 (1) can be used to suppress such conduct.

However, by studying the term anti-competitive acts, this study found that the scholars interpret “restricting the business operation” into two ways.

1. The narrow interpretation: Section 57(1) of the Thai Trade Competition Act uses the word "Kid-kan"(กีดกัน)¹¹ which refers to operation restricting other

¹¹ Office of Trade Competition Commission, “The 2017 Trade Competition Act.” (2 July B.E. 2560(2017)) (Thai version), at <http://otcc.dit.go.th/wp-content/uploads/2015/02/law-2560.pdf>, (last visited 13 March 2018).

business operators from competition. In the case where discriminatory algorithms is used it is an obstruction when search engine providers do not allow other sellers to enter the market.

2. The broader interpretation: "restricting the business operation" means restricting and reducing competition. Reducing the competition can be considered as an obstruction but it is not necessarily a complete restriction.

Thus, enforcing Section 57(1) may cause some problem where search engine providers will claim that their action is only reducing competition but not an absolute restriction. This reason will make Section 57(1) may not be fully enforced.

Section 57(2) states that it prohibits 'unfairly utilizing superior market power or superior bargaining power'

The using superior bargaining power unfairly is not obvious to be detected because an injured party under Section 57 has to accept the unfair agreement. In fact, the act of the search engine providers might be done, behind the scene, without using of direct power and the injured party agreed unknowingly. Moreover, from the analyze of anti-competitive conduct, the conduct of search engine providers which abuse this subsection is the case of giving the special score to a sellers who buys advertisement without disclose only. Therefore, Section 57(2) cannot use with the case that set a seller's webpage with a high-quality score to a wrong place.

Section 57 (3) prohibits business operator shall undertake any conduct resolution in damage to other business operators by unfairly setting trading conditions that restrict or prevent the business operation of others. This subsection is similar to Section 50 (2) which prohibit to impose unfair conditions. However, they varies in business relationships where Section 50 governs a vertical agreement while Section 57 governs a horizontal agreement. A horizontal agreement under Section 57 (3) states for business operators to have an equal status thus the sellers must accept the conditions that restrict or prevent the business operation of others. Therefore when the use of discriminatory algorithms is applied behind the scenes of the sellers, the sellers do not have to accept the unfair condition. Section 57 (3), therefore, cannot be applied to the use of discriminatory algorithms in unfair competition.

In conclusion, Section 57 (1) (2) provides the provision is adequate to suppress the use of discriminatory algorithms. However, Section 57 (1) has a problem in the

interpretation of "restricting the business operation" and Section 57 (2) does not apply to the case that sets a seller's webpage with a high-quality score to a wrong place. From all above reason, Section 57 may not be fully enforced.

Recommendations

Based on all studies, it can be concluded that the use of discriminatory algorithms is the conduct of search engine providers which make the unfair competition in the sales and services markets. It causes the damages to the sellers by making they lose the opportunity to offer the sale of the product to the consumer. This study classified the suspects into two groups.

1. The concerted practice of search engine providers and the sellers who buy an advertisement: It is under the analysis of the 2017 Trade Competition Act Section 55. The analysis concludes that Section 55 is sufficient to prevent and suppress this concerted practice.

2. The search engine providers: Section 50 sufficient to prevent and suppress the use of discriminatory algorithms in case that search engine providers have the market dominance. However, there remains the issue of interpretation and application of Section 57(1) and (2) which may not suppress the use of discriminatory algorithms fully. Therefore, for clarity to solve the problem of the use of discriminatory algorithms, the Committee should issue an additional announcement, notification or make an amendment following Section 57(4) by adding:

“by unfairly intervene in the business of other business operators or any other actions which will affect the injured party to lose opportunity to competition.”

Or

“by unfairly discriminatory treatment in the business of other business operators”

The reason for the additional announcement "unfairly intervene" in Section 57, even if Section 50 (4) is provided because the current requirements of the dominant position in Thailand requires one to have an income and market share to a great degree (fifty percent market shares and a one billion baht sale). As a result, there may be some entrepreneurs who are intervening in the business of others without any reasonable reason. Thailand may have some business operators but they are not in a

dominant position by the law. Search engine providers that use discriminatory algorithms, perhaps, run a big company with sales exceeding one billion, but the market share is less than 50 percent. As a result, search engine providers would not be considered to have a dominant position and could interfere with the seller's business without violating Trade Competition law.

The use of discriminatory algorithms is an action where an offender is unavoidably guilty, whether it is a company with a dominant position or not. This study is analyzed the advantages and disadvantages and based the recommendations on Section 50 (4) and Section 57 which aims at the same offenses. However, in order to fill the gaps of the law based on the requirement that one need to be in a dominant position enables search engine provider to intervene with another's business illegally. An announcement by the Ministry would resolve the problem. It will help the Thai Trade Competition law be able to prevent the use of discriminatory algorithms.