

Predatory Pricing in the Online Transportation Platforms: Is It Really Predatory?

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Abstract— The Competition Law in Indonesia is embodied in Law Number 5 of 1999 [1] concerning the Prohibition of Monopolistic Practices and Unfair Business Competition which aims to provide equal opportunity for every citizen to participate in the process of production and marketing of goods and or services, in a fair, effective and efficient business environment. In line with this purpose, the practice of predatory pricing which aims to erect barriers to entry is prohibited under Article 20 of the Law. The development of technology and internet, [2] however, has provoked the development of a new business model: Digital platform. Unlike a pipeline business model that merely acts as a supplier to the consumers, platforms manages the interaction between the producers and consumers. This results in the different model pricing that raises question of the possibility of imposing antipredator pricing to the platform business. This research reveals the analysis of platform business and explains about its pricing method. To actualize our analysis, we take grab-gojek pricing model as a case study.

Keywords: competition, antitrust law, predatory pricing, transportation

I. INTRODUCTION

In the view of the classical economic approach, a perfect competition is when there are prices for all goods, which every agent takes as

given.[3] To support the practice competitive market, the Republic of Indonesia enacted the Law No. 5 of 1999 on the Prohibition of Monopolistic Practices and Unfair Business Competition (Anti-monopoly Law) in its National Legislation in 1999. This law has never been amended ever since.

In light of this, the concept of predatory pricing is prohibited under Article 20 of the Anti-monopoly law, as it could lead to the practice of monopoly or unfair business competition. The law explicitly states that entrepreneurs are prohibited to supply and sell goods and/or services without making any profits, or by setting a very low price with the intention to eliminate or end their competitors' business in the relevant market [2]. This paper will analyse the concept of predatory pricing in two perspective: based on the pipeline market, and based on the two-sided market. To create a clear distinction between the two markets, in a pipeline market, we can characterize the price cost mark-up in terms of elasticity of demand and the marginal cost [4] therefore a price set under the marginal cost will be classified as predatory pricing. But in a two-sided market, pricing decisions will also include the elasticity of the response on the other side and the mark-up charged to the other side,[4] therefore the presence of predatory pricing must be assessed on a case-by-case basis. This will need a framework that asks firstly whether the allegedly predatory price

would have been profitable in a counterfactual world in which that pricing did not weaken its rivals.[5]

II. THEORETICAL FRAMEWORK

The preamble of Anti-monopoly Law indicates that the law itself is established with the purpose of creating equal opportunity for its citizens to participate in the production process and marketing of goods and/or services, in a fair, effective, and efficient business climate, to boost economic growth and market economy to function properly in a fair and proper competitive situation.[6] In line with this, the concept of the aforementioned purpose of efficiency and equality is the primary objective from the establishment of the competitive nature in a market.

Pertaining to the focus on Anti-monopoly law, this framework will provide a view from the law perspective and from the economic perspective as follows.

A. Law Justification

In the broad sense, legal perspective upholds the principle of equality, and acknowledge a right of freedom to conduct business. This is closely interconnected with the concept of Article 20 of the Anti-monopoly law, and therefore the two concepts will be further elaborated in this paper.

1. The principle of equality

The Principle on Equality is based on legal concepts that have evolved in international, regional, and national human rights or equality jurisprudence. The close connection between law and certain ideas of equality has been perceived and discussed since the early history. And on the latter, it comes to a conclusion that of all general values attachable to law, the value of equality seems to be the one closest to law,[7] in particular in the view of human rights approach.

The main value of adopting a human rights approach, aligned with the 1948 Universal Declaration of Human Rights, is that the beneficiaries of development are considered to be right-holders, not

subject to charity, and are thus able to make legitimate claims on governments for their rights to be respected.[8] This applies not just in the area of civil and political rights, but also in the social and economic spheres.

This practice of predatory pricing causes inequality to the company's competitors and infringes their freedom to conduct business. Hence, from the legal perspective, there is a high urgency for every State's national legislative body to prohibit predatory pricing under the national legislation

B. Economic Justification

From the economic perspective, the traditional theory of predatory pricing is as simple as setting a price so low for a sufficient period of time by the predator until its competitors leave the market and others are deterred from entering.[11] In line with the Anti-monopoly Law, predatory pricing in the economic view also imposes a significant impact, where in this sense, it plays a great role to utility and innovation.

Fundamental to the idea of legal equality is the concept discrimination. It is here conceived as a value-free concept: to discriminate is taken to mean that some distinction is made within the category of human beings or within some sub-category of human beings.[8]

2. The freedom to conduct business

This fundamental right is popular in the European Union, and the concept has been accepted by the international society. The International Covenant on Economic, Social, and Cultural Rights (ICESCR) interprets this right as including "all forms of work, whether independent work or dependant wage-paid work" [9]

In principle, the freedom to conduct business would include any legitimate form of profit-making activity conducted by one or several individuals "in company. The right seems to encompass the full "life-cycle" of such activities, for instance from setting up a company, through operating one, to insolvency or closing a business.[10]

Based on the above principles, the provision prohibiting predatory pricing under Article 20 of the Anti-monopoly Law is enacted to prevent the two fundamental principles from being breached. For instance, if a company sets a price for a particular product far under the average variable cost, the rate of buyers will simultaneously skyrocket [2]. This will certainly create a discrimination for the company's competitors of the same product as there will be no chance to compete in that market, thus, the competitors will not be able to conduct that particular type of business anymore.

1. Utility

According to Prof. Waugh, utility is defined as the capacity of a commodity to satisfy human wants. It does not necessarily equate with usefulness, and could not be measured objectively, however, it depends on the intensity of want. The theory of marginal utility examines the increase in satisfaction consumers gain from consuming an extra unit of a good. To illustrate this concept, we will give a simple example,[12] for instance, consuming one chocolate bar may satisfy a person's sweet tooth. If a second bar is consumed, there will be less satisfaction gained, and if the third is consumed, the satisfaction will be even less.

The existence of predatory pricing would form a repercussion to the marginal utility. Predatory pricing will constitute an exploitative abuse, thus reducing consumer welfare which leads to a deadweight loss, and in sum results in inefficiency of the market.

The concept of deadweight loss is defined as a cost to society as a whole that is generated by an economically inefficient allocation of resources within the market. When supply and demand are not balanced by market forces, consumers may choose not to pay for goods or services because they assess that the price is not worth the utility these goods/services will offer. With the overall exchange of items for money being reduced, the efficiency of overall resource allocation drops, and thus the overall societal welfare drops as well.[13]

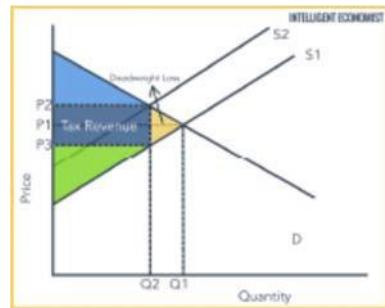


Figure 1. Deadweight Loss

2. Innovation

Kline and Rosenberg innovation, as the attempt to try out new or improved products and processes but also improvements in areas such as logistics, distribution, and marketing, is an aspect of most economic activities. It may be asserted that a transaction or practice in the market structure will be efficient over time because of innovation.[14] Innovation is essential for sustainable growth and economic development. In the modern economy, innovation is crucial for value creation, growth and employment, which will lead to new business models as well as to increase the competitiveness of existing enterprises.[15]

This gives a clear view on why predatory pricing must not be practiced even from the economic perspective. Predatory pricing would most likely lead to a monopolistic market system, thus, closing every opportunity from potential innovator to enter the marketplace of a particular product.

Furthermore, when such monopoly exists, consumers will have no option to a better quality or a different choice of product. They will be dependent to one particular company as the only producer of that product, and the price imposed will vary, up to the sole producer. In the end, other sterling innovators will not have the chance to develop the product. Under the economic justification, predatory pricing by the means of cutting the price of a product far under the marginal cost with the intention to prevail over the competitors will constitute a disruption in the market system. In sum, by hindering

competition, there will be an exploitative abuse and the halt of innovation, which will impact to the reduction of consumer welfare and efficiency. In the modern economy theory, we recognize the existence of two business model, namely: pipeline business model and two sided platform model. In the following section, we will break down the two business models and analyse each model's connection with the concept of predatory pricing.

As a result from the above framework, the law and economic perspective gives the same conclusion on the practice of predatory pricing, which is specifically regulated under Article 20 of the Anti-monopoly Law [2]. Predatory pricing must be prohibited, however, this theory has to be assessed and applied in each type of business model.

C. Pipeline Business

Traditional business typically creates products and/or services that fulfill the needs of the customer. This business model is called pipeline.

Pipeline businesses create value by controlling a linear series of activities (the classic value-chain model). Inputs at one end of the chain undergo a series of steps that transform them into an output that's worth more: the finished product.[16]

To understand it in a simpler way, in a pipeline market, the linear series of activities begin with the producer, who has the main role in producing the products. The finished product is then forwarded to the distributor and marketing to put the products on the market, and the consumers are expected to buy the products in the market, directly from the distributor.

In a pipeline business, the key factors affecting the supply and demand of a product could be clearly identified. The increase or decrease of supply varies based on the price of product, weather, yields, diseases, technology, cost of production, and government policies. As for the demand factors, it varies based on the consumers' taste and preference, population size, income, price of substitutes, as well as research and media [17]

Pipeline firms have long outsourced aspects of their internal functions, such as the customer service. To give a clear distinction of the pipeline concept with the two-sided platform which will be explained in another section, take department store cards as an example, department store cards are payment cards that allow the consumer to use payment card features at a single company. Since all uses of the card are at a single company, they represent a one-sided approach to payments.[17]

In a pipeline platform, it is easy to detect the existence of predator in the market. The practice of predatory pricing in this business model is under the scope of provision of Article 20 of the Anti-monopoly law. If a company imposes a price unreasonably lower than the average cost, therefore it could be directly pointed out that there is an existence of predatory pricing.

D. Two-sided Platform

Platforms are undertakings that enable interactions between users so as to generate value from these interactions.[18] In line with this, A two or multi- sided platform is an entity that brings together two or multiple groups of economic agents and actively manages external effects between these groups.

Broadly speaking, a two-sided platform exists when two sets of agents interact through an intermediary or platform, and the decisions of each set of agents affects the outcomes of the other set of agents, typically through an externality, [18] whereas the intermediary is more efficient in organizing the interaction.



Figure 2. Two-sided Platform [18]

To break down the illustration in Figure 2, in a two-sided platform, the producers sell their products through an intermediary. The consumers will access the intermediary from time to time to find the product they need or want, to buy the product. In this business model, the intermediary will impose no action, therefore the movement of the market will depend on the producers and the consumers, or the agents.

As with competitive effects, there is a risk that efficiencies generated on another side of the market will be missed if the two-sided nature of the platform is not recognised. Alternatively, such efficiencies might be identified but ruled to be out-of-market efficiencies and hence not relevant for the legal assessment [18]

1. Network effects

The main function of platforms is to manage network effects (direct, indirect and platform-wide). Platforms can create value by linking economic agents when Agents can benefit from interacting, but they fail to organize the interaction by their own means.

In the simplest setting, users care from an ex ante perspective only about the size of the network, for instance, the more agents participate to the interaction, the more valuable the interaction is for every participants. In a more general setting, also the identity of the users of the network matters.

To classify platforms, we could identify the two main categories of network effects that are managed by the agents. These categories are the within-group network effects, and the cross-group network effects.

The within-group effect constitutes a direct network effect, [18] which could be positive or negative in nature. Positive network effects, for instance, relates to social norms, languages, fashion goods, and communications devices. On the contrary, Road congestion and traffic jams are the prototypical examples of negative network effects.

In managing the network effects, we refer to the three-step procedure. First, we need to identify the

economic agents who wish to interact, and then convince them to become the network users. Second, the ways of some users' participation in creating or destroying the value for other users on the platform needs to be figured out. Third, the relative strength of the various network effects to activate them as effectively as possible, needs to be evaluated. [18]

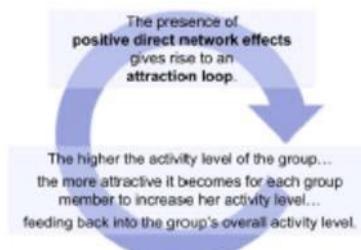


Figure 3. Attraction Loop

Figure 3 explains that the presence of positive direct network effects induces the attraction loop. The attraction loop takes place as the activity level of the group becomes higher, thus making it more attractive for each group member to increase their activity level which feeds back into the group's overall activity level.

As for the cross-group network effects, we take two groups linked according to the signs of the network effects. In this sense, there are three typical situations for this category: attraction spillover, mutual attraction spiral, and attraction/repulsion pendulum [18].

The attraction spillover occurs when a higher activity level in one group attracts the other group's members to increase their activity level, but the attractiveness is not affected in the opposite direction. Mutual attraction spiral on the other hand arises when a higher activity level in one group makes it more attractive for the other group's members to increase their activity level and vice versa. While the third situation, the attraction/repulsion pendulum, could also be regarded as the negative indirect network effect. This means that if a higher activity level in one group makes it more attractive for the other group's members to increase their activity level and if, by contrast the other group's

members tend to be repelled by a higher activity level of the first group, such cross-group effects give rise to this attraction/repulsion pendulum.[18]

2. Creating value by matching

In addressing the question of where do profits come from, economic philosophers introduce the theory of value. According to the marginal theory of value, the determination of value is found in the intersection of the demand force of utility and the supply force of cost.[19]

For example, if a man enters a book store for a particular book which he would buy for \$10, but the actual book only costs \$8, therefore there is an intersection of \$2 value determined in that book.

However this concept of value is much more complicated to be applied in the two-sided platform. Whereas value varies based on the decision of the agents of intermediaries. In this regard, the determination of value is found by matching the products demanded by the consumers with the products supplied by the producers through the platform.

In a platform business, it is important to recognise that cross-platform network effects can magnify the competitive constraints that exist, while also raising a barrier to entry by potential rivals and restricting the emergence of new competitive constraints [19]

In addition, two-sided markets allow for a new form of price discrimination based on heterogeneity in the attractiveness of an agent to the other side, where the price set for a product may be below the average total cost. If members of one side use only one platform at a time, the platform can charge monopoly prices to the other side for access. [19] This becomes a problem for the platform developer, where the concept of ‘chicken-and-egg’ problem emerges.

A. *The Chicken and Egg Problem*

In the classic chicken and egg problem, there are several steps to solve this problem: first, by deciding whether the chicken or the egg should come first, then find ways to catch chickens or collect eggs and make the chickens confident to find eggs, or if

necessary, lay the first egg yourself. [20] To understand the nature of the chicken and egg problem to be applied in the platform problem, we need to recall that network effects create an interdependence between the users’ decisions to participate to a particular platform.

III. ANALYSIS

As we already understand the concept of pipeline and two-sided platform business model, we will now analyse the difference of the two business models. When it comes to strategy, in pipeline businesses, the five forces model of competition are relatively defined and stable. For example, the customers and competitive set of an airline are fairly well understood, and the boundaries separating the suppliers, customers, and competitors are reasonably clear. In platform businesses, those boundaries can shift rapidly due to various factors.[19]

The chicken-and-egg problem for a two-sided platform describes the fact that users in one group will not participate unless they expect users in the other group to participate, and vice versa. By using the previous analysis, we should come first to the group with the largest output force (cross-group network effect) and/or the smallest input force (effort required to attract additional users).

Next, to catch the chickens or collect the eggs, there is an option for us to choose between attracting users with a larger output force or the users with a smaller input force. For larger output force users, or the ‘Marquee users’, we will need to generate larger CGNEs for more users of the other group to interact with them. For example, popular games on console, large buyers on B2B sites, and marquee shops in malls. For this type of users, input force may also be large because they are coveted by competing platforms. [20]

On the other hand, users with a smaller input force are easier to attract, because they put a relatively lower weight on network benefits. This occurs as the more they value stand-alone benefits, the less they need the other group. In this sense, they persuade one another, which excite positive WGNEs. This type of

users prefer a platform less crowded with their own kind.[21]

For the third step, to make the chickens confident in finding the eggs, it is significant to create expectations for the users. If they express pessimistic expectations, it will create null equilibrium, whereas users in one group would not join, if they believe that the users in other group won't join too, and conversely. If possible, it is highly desired if the seller is able to generate positive expectations, for at least one group, through advertising, commitment, etc.[22]

In addition, sellers could also apply the divide-and-conquer strategy by subsidizing one side of the market in order to attract it.[23] The divide strategy is exercised by guaranteeing one group the utility they would obtain if the other group joined. Then the seller will conquer, by making the other group pay to interact with the first group. When undifferentiated two-sided platforms compete in prices, they both follow a divide-and-conquer strategy and the outcome is such that the market tips in favour of a single surviving platform, which is potentially left with no profit.

Now moving on to the last step, to lay the first egg yourself, it might be better to start the business in pipeline model, and become a platform later. The partial integration with one side of the market may be necessary to make the other side participate, and after that, disintegration may come at some later point in time.

In sum, to solve the chicken-and-egg problem, platforms may want to attract users in a sequential way. They should then target in priority those users who present the highest ratio between the cross-group external effects they generate for users on the other side, and the cost that needs to be incurred to attract them.[23]

A. *The Implementation in Indonesia's Online Transportation Platforms (Grab and*

Gojek)

To actualize our analysis, we study the concept of pricing below average cost applied by Grab and Gojek. Grab and Gojek are both platform providers for bike or car drivers to take their customers through online applications. In this paper, we set a limitation by assuming that both platforms are positioned in the same market, and that the cost administered by both platforms will not be a factor determining the existence of predatory pricing, as both companies are private in nature.

On the basis of the two-sided platform approach, Gojek and Grab both provide service to match up the drivers with the passengers. In this sense, taking account the concept of chicken and egg as discussed above, the platform provider used the divide and conquer strategy to attract the passengers. In the beginning, they boosted the quantity of drivers by guaranteeing them the utility they would obtain if the other group join the platform. Then, they succeeded to make the passengers pay to interact with the drivers.

Thus, it would be logical for the price set for one group, here, the passengers, are relatively lower than the average cost, because they need to equilibrate the demand with the supply to maximize the profits, and eventually increase the efficiency of the market.

In this model identification, competition between the two platforms will be more complicated, as they only rely on the cross-network effect. Hence, a different approach is needed to examine the existence of predatory pricing. The pipeline business model policy on predatory pricing is unapplicable in the two-sided platform.

IV. CONCLUSION

In conclusion, the policy governing predatory pricing in a pipeline business model and two-sided platform model could not be generalized. The Anti-monopoly Law in Indonesia is outdated, and unable to accommodate the implementation of business practice in a two-sided platform.

The concept of predatory pricing under Article 20 of anti-monopoly law, if imposed on platform business models like Grab and Gojek, will cause a

turmoil in their market, and halt innovations. The supply will not meet the demand, and therefore there will be a deadweight loss which results in an inefficiency in the market. If this happens, the implementation of Article 20 will be contradictory with the purpose of efficiency as promulgated in the preamble of the Anti-monopoly Law.

This paper, however, is incapable of assessing the existence of predatory pricing in the current situation imposed by Grab and Gojek, as it will be under the authority of economic analysts and experts.

REFERENCES

- [1] Republic of Indonesia. Law No. 5 of 1999 on the Prohibition of Monopolistic Practices and Unfair Business Competition.
- [2] Article 20, Republic of Indonesia Law No. 5 of 1999 on the Prohibition of Monopolistic Practices and Unfair Business Competition (hereinafter "Anti-monopoly Law").
Journal: Microeconomics
- [3] Durlauf, Steven N., Blume, Lawrence E., 2008. The New Palgrave Dictionary of Economics, Palgrave Macmillan. 2nd edition.
- [4] Rysman, Marc, 2009. "The Economics of Two-Sided Markets", Journal of Economic Perspectives
- [5] OECD, 2018. Rethinking Antitrust Tools for Multi-Sided Platforms, www.oecd.org/competition/rethinking-antitrust-tools-for-multi-sided-platforms.htm.
- [6] Preamble (a), Anti-monopoly Law.
- [7] Frändberg, 1957-2010. Legal Equality, Stockholm Institute for Scandinavian Law.
- [8] O'Neil, Tammie, Piron, Laure-Heleene. "Rights-based approaches to tackling discrimination and horizontal inequality", Poverty and Public Policy Group Overseas Development Institute.
- [9] UN, Committee on Economic, Social, and Cultural Right, 2006,
- [10] Fundamental Rights Agency "Freedom to conduct a business: exploring the dimensions of a fundamental right", https://fra.europa.eu/sites/default/files/fra_uploads/fr_a-2015-freedom-conduct-business_en.pdf.
- [11] OECD, 1989 "Predatory Pricing" <http://www.oecd.org/competition/abuse/2375661.pdf>.
- [12] ECON 150 Economic Principles and Problems-Micro. "Section 01: Consumer Behavior" https://courses.byui.edu/ECON_150/ECON_150_Old_Site/Lesson_05.htm.
- [13] Agarwal, Prakteek, 2019. "Deadweight Loss" <https://www.intelligenteconomist.com/deadweight-loss/>.
- [14] Rosch, J. Thomas, 2010. "Monopolies, Innovatioin, and Predatory Pricing", FTA. Los Angeles.
- [15] Gerguri, Shqipe, Ramadani, Veland, 2010. Paper No. 22290. "The Impact of Innovation into the Economic Growth", MPRA.
- [16] Van Alstyne, Marshall W., Parjer, Geoffrey G., Choudary, Sangeet Paul, 2016. "Pipelines, Platforms, and the New Rules of Strategy", Harvard Business Review.
- [17] Unknown. "Factors of Supply & Demand", <http://www.grainphd.com/wp-content/uploads/2017/07/Supply-and-Demand.pdf>.
- [18] Belleflamme, Paul, Peitz, Martin, 2019. The Economics of Platforms, Cambridge University Press.
- [19] King, J.E., McLaren, Michael, 2006. Discussion Paper 14.06. "History of the Concept of Value", Universiity of Western Australia.
- [20] Nguyen, Huyen, 2017. "Solving chicken and egg dilemma in online platform startup: Value proposition in focus", Aalto University School of Business
- [21] Ott, Timothy E., Bremner, Robert P., Eisenhardt, Kathleen M., 2018. "Beyond the chicken and egg: Strategy formation in two-sided marketplace ventures", Kenan Institute Journal.
- [22] Caillaud, Berndard, Julien, Bruno, 2003. Vol. 23 No.2." Chicken and egg: competition among intermediation service providers", RAND Journal of Economics.
- [23] Halaburda, Hanna, Yeheskiel, Yaron, 2013. Vol. 5 No. 3 "Platform Competition under Asymmetric Information", American Economic