Market Competition and Monopoly Power: Insights from Oligopoly Structure

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Abstract. In this context, the primary objective is to conduct a comprehensive investigation into the real-world implementation and impact of distinct economic models. Through the literature analysis, the paper sets out to examine product competition and corporate conduct within two contemporary markets. Through this meticulous approach, the aim is to unveil the nuanced distinctions and intriguing parallels that exist between Oligopoly and Oligopoly Competitive Markets. First, broad definitions and classifications of both oligopolistic and oligopolistically competitive markets are considered. Second, the subtle differences between the two markets will be shown through specific oligopoly examples (such as OPEC and mobile phone market). Third, detailed analysis of the features of the similarity between the two markets. Finally, the study found that, as two different market structures, the oligopoly market and the oligopoly competition market have completely different gaps in market control and price stability, but it is undeniable that the two markets have the same driving force in innovation.

Keywords: Oligoply, Oligoply Competitive Market, Motivation of Innovation, Price Stability.

1. Introduction

The variety of market structures has had a significant impact on how economies and businesses are operating in the current age of globalization and digitization. Market structure influences resource allocation, consumer choice, product pricing, and the level of rivalry among enterprises. Among them, as two important market structures in the modern economic system, oligopoly market competition and oligopoly market have become more and more common in modern society, which has aroused extensive academic and practical attention.

Oligopolistic competition market is a hybrid of monopoly and competition [1]. There are several producers and suppliers of various goods in the market under monopolistic competition. These items differ to some amount, which gives businesses the ability to establish prices and engage in non-price competition to some level [1]. An obvious feature of oligopoly market competition is the differentiated competition among enterprises, that is, through product innovation, brand marketing and service quality, enterprises try to find their own position in the market, so as to achieve long-term stable market share. Oligopoly competition is common in many industries, such as aerospace, automotive, and software. These industries are usually dominated by a few large firms [2]. Since the number of firms is limited, they are able to influence each other's prices and market behavior [3]. In contrast, an oligopoly market is a more extreme market structure. In an oligopolistic market, these monopolies can exert enormous influence on market price and supply, eliminating the conditions for sufficient competition. For instance, OPEC, an organization that exports oil, can limit oil output to achieve their goal of influencing future oil prices [4]. Typically, oligopoly markets have high market barriers that prevent other businesses from entering, thereby strengthening the position of these monopoly firms [5]. Moreover, although firms in both markets occupy dominant positions, they still need innovation to support their market monopoly power [6]. But what exactly are the differences between the two markets? Why do these two markets have such important commonalities despite their differences? The discussion of these issues is very meaningful for the study of oligopolitic and oligopolitic competition market.

This study will through specific literature and analyze enterprises or institutions (OPEC, Huawei and Apple) with market attributes of oligopoly and oligopoly competition to understand the corporate structure in a monopoly market. And use this to observe the product competition and corporate behavior in the oligopoly and oligopoly competition markets in modern society, so as to explore the differences and similarities between the two. Also, this paper extensively covering the innovation-related literature to deeply explore and analyze the importance of innovation in oligopoly and oligopoly competition markets.

2. Literature Review

This literature review aims to explore the structure and operation mode of enterprises in monopoly market in the literature so as to observe the similarities and differences between monopoly market and monopolistic competition market.

Numerous economic disciplines have conducted substantial research on OPEC-related monopoly analyses. For instance, in 2021, Zubaidi and Falih thoroughly examine the connection between the oil market and the oligopoly market. Based on their research, OPEC clearly indicates an oligopolistic market [7]. The substantial increase in global oil demand has caused significant changes in the world oil market, and the oligopoly businesses now operate across the majority of the world's oil-producing regions [7]. The study also demonstrates how oligopoly enterprises influence prices by managing sales.

Furthermore, Christensen, Ojomo, Gay, and Auerswald, studied the relationship between innovation and economic development [8]. In their study, by providing two examples, entrepreneurs breaking the deadlock to jointly create sewing machine combinations and singers creating new sewing machine markets, it is concluded that markets create innovations, and innovations ultimately drive economic development [8]. It can be deduced from this that no matter which market you are in, innovation is extremely important. Innovation means much more than that, Corbae and Levine conducted a study on the interplay between competition, stability, in this study he concluded that competition will increase efficiency and stability [9].

3. Oligopolistic and Oligopolistic Competitive Markets

3.1. Distinguishing Characteristics of Oligopolistic and Oligopolistic Competitive Markets

3.1.1 Market Control

As far as market control is concerned, there are several competitors in oligopolistic competitive market, but no monopolist. Therefore, each firm has relatively little influence in the market. Such as heavy industry, high-tech industry: smart phone market. There are also many household names in this market, such as Apple, Samsung, Huawei, Xiaomi, etc. [10]. But it is worth mentioning that although these companies are well-known, none of them dominates. Data show that in the second half of 2018, the market shares of Samsung, Huawei, and Apple are not much different, being 20.3%, 14.6%, and 13.2% respectively [10]. Although these top companies hold most of the market share, due to the large number of competitors at the same level, the market share of each company is relatively small compared to the overall share.

So their decisions may only have an impact on specific market segments, rather than causing huge fluctuations in the entire market. In other words, even if the decision of the relevant company has an impact on market share, it will take time. Taking Huawei as an example, the company used a cost-effective product positioning method to improve its market share [11]. But it took seven years to enter the top 100 companies in the world [12]. This is because the rest of the market has been occupied by other companies. Even if Huawei's decision is good, it will take a correspondingly longer time to implement it in the oligopoly market.

The oligopoly market structure, on the other hand, is defined by a small number of businesses or monopolies controlling the whole market, giving them considerable power within the sector. The worldwide oil market, where a small number of international oil companies control a sizeable amount of the world's oil supply, serves as a famous illustration of this scenario [4]. These firms' decisions to either boost or decrease oil output have a significant impact on both the world's energy markets and oil prices. These businesses have a significant amount of market dominance thanks to the monopolistic market structure, which has an impact on international economic and energy policies [4].

The acts of OPEC are a notable example illustrating the power of oligopoly [7]. The goal of OPEC, a global organization made up of a number of oil-exporting countries, is to coordinate and stabilize oil output and prices among its member states. Most of the members of the organization are from Middle Eastern countries and their combined influence over the world's oil supply is considerable. A large chunk of the world's supply of oil comes from OPEC countries' oil production. As a result, OPEC's choices have a significant influence on the world oil market and subsequently oil prices [13]. Members of OPEC regularly meet to discuss altering oil production in response to market dynamics whenever there are supply-demand mismatches or price swings on the world oil market [14].

More specifically, in order to balance market supply and support oil prices, OPEC frequently chooses to limit the oil production of its member nations [14]. These reductions in production are frequently referred to as "production reduction agreements." On the other hand, OPEC might think about raising member countries' oil production to tamp down the price increase if the global economy experiences a quick recovery or if other circumstances cause oil prices to rise [14]. The actions and agreements reached by OPEC to reduce production cause significant swings in the world oil market [14]. Oil price fluctuations have a significant impact on the world's energy markets, oil-producing countries, and oil-consuming countries equally. Fuel expenses and energy prices for customers are directly impacted by changes in oil prices. Moreover, the instability in energy prices also affects businesses' production costs and alters the global trade landscape.

3.1.2 Price Stability

In markets with few competitors, known as oligopolistic markets, price stability tends to be higher compared to competitive markets. In competitive markets, multiple players strive to keep prices within a reasonable range since each company aims to secure a significant market share [15]. This results in a self-restraint effect on prices, leading to relative stability.This is also one of the two pricing policies in competitive markets - fixed price [16]. In a competitive market, each seller seeks to attract more consumers and increase sales by offering lower prices for their products. If one seller attempts to raise prices while others maintain lower prices, that seller may lose market share and experience a decline in sales. This creates a form of price competition among all participants, encouraging them to control prices within a reasonable range to maintain their competitive position.The interplay of supply and demand dynamics further contributes to price stability in competitive markets. This self-restraining mechanism helps keep prices relatively steady to some extent.

From a game-theoretic perspective, firms in competitive markets may engage in a "repeated game." In this scenario, players face the same opponents repeatedly and recognize that current decisions impact future outcomes [15]. In order to obtain better results in the long run, instead of adopting destructive strategies, participants may choose collusion [17]. In the context of competitive markets, price competition among firms can be seen as an example of a repeated game where they tend to maintain prices within a reasonable range for mutual benefit.

In contrast, in an oligopoly market, maintaining higher prices is often easier for the dominant firm through negotiations or other means. This is because new entrants may face significant barriers to entry due to the presence of a monopoly or oligopoly [7]. These barriers may include technical thresholds [18]. For example, at the end of the last century, large-scale acquisitions of domestic production companies by foreign companies led to a reduction in Australia's ownership in the field of veterinary biological vaccine production[18]. In addition, capital requirements, government regulation or brand influence can also create barriers. Because of the difficulty of entering a market, a monopolist can control the market with relative ease and maintain high prices by limiting the entry of new competitors. Barriers increase market share stability [19].

Moreover, monopolies possess significant market power, enabling them to unilaterally influence prices. They can manipulate market supply and demand by controlling production capacity, limiting supply, or coordinating pricing strategies [7]. This monopoly power grants them greater autonomy in the market, making it more straightforward to maintain higher prices.

3.2. Common Characteristics of Oligopoly and Oligopoly Competitive Markets

In both oligopoly competition and oligopoly markets, firms are affected by market competition and thus have a strong drive to innovate. Whether there are many competitors or a concentrated market share, companies are pursuing competitiveness, and innovation is an important means to achieve this goal [20].

In the context of oligopoly market competition, enterprises are driven by fierce competition to embrace continuous innovation. Each company strives to introduce captivating products or services that can attract more consumers and secure a larger market share. Through innovation, companies can enhance product quality, reduce costs, or achieve product differentiation, thereby fulfilling consumers' needs and boosting demand for their offerings. This cycle of competition and innovation propels the market's development and progress. Even in an oligopoly market with only a few dominant players, innovation remains essential. Monopolistic enterprises also face pressure from market competition and government regulations. To maintain their market position and profitability, these monopolies must engage in innovation to elevate product quality and cater to diverse consumer demands. Failure to innovate or neglecting consumer needs could lead to loss of market share, as consumers may seek alternative products or services.

Overall, whether it is an oligopoly market competition or an oligopoly market, enterprises are compelled by the pressures of market rivalry and consumer preferences to actively pursue innovation. Through innovation, companies can offer more competitive products, expand their market presence, satisfy consumer demands, and ultimately maximize their profits. The role of innovation is pivotal in fostering market prosperity and fostering economic growth, which is why firms in both market structures prioritize and embrace innovative practices.

3.3. Motivation of Innovation

Both oligopolistic and oligopolistically competitive markets require innovation to support their market monopoly power. As far as the oligopoly market is concerned, although under its market structure, the dominant position of a few enterprises will lead to the lack of sufficient competitive pressure among enterprises. But that doesn't mean they ignore the importance of innovative activities. Innovation can help them further consolidate their position in the industry and drive differentiation. In addition, an oligopolistic market refers to a market in which there are several major competitive firms that compete relatively equally in the market. So compared to a monopoly market, competition among enterprises is under greater pressure, and innovation is more common.

In an oligopoly market, a few firms have a large market share and influence. To maintain their market position, these businesses need to continuously innovate to prevent competitors from threatening their monopoly position. Organizations are consistently compelled to develop novel products and service bundles swiftly and efficiently, driven by the escalating competition and the rapid shifts in consumer preferences [6]. Innovation, so to speak, helps firms consolidate their market share and prevent other competitors from entering the market. This proactive response not only helps organizations maintain a competitive advantage, it also plays a vital role in developing and maintaining customer loyalty. As the market continues to evolve, this continuous innovation can better meet customer needs, enhance their satisfaction, and build strong customer loyalty. This is because customers are usually regarded as the basic profitability of an organization [20]. And customers are not only a source of income for an organization but also have an important impact on the long-term profitability and business growth of an organization.

3.3.1 Innovation Helps Market Maintain its Market Position

In an oligopoly market, a few firms have a large market share and influence. To maintain their market position, these businesses need to continuously innovate to prevent competitors from threatening their monopoly position [6]. Organizations are consistently compelled to develop novel products and service bundles swiftly and efficiently, driven by the escalating competition and the rapid shifts in consumer preferences [6]. Innovation, so to speak, helps firms consolidate their market share and prevent other competitors from entering the market. This proactive response not only helps organizations maintain a competitive advantage, it also plays a vital role in developing and maintaining customer loyalty. As the market continues to evolve, this continuous innovation can better meet customer needs, enhance their satisfaction, and build strong customer loyalty. This is because customers are usually regarded as the basic profitability of an organization [21], and customers are not only a source of income for an organization but also have an important impact on the long-term profitability and business growth of an organization [21].

3.3.2 Innovation Drives Differentiated Competition

Monopolies usually try to differentiate themselves from other competitors by innovating to give their products or services unique characteristics. This differentiation can help companies attract consumers, making them more willing to choose their products over other alternatives. To meet the ever-changing consumer needs. This differentiation can make the company's products more attractive, enhance brand value, attract more customers, and at the same time maintain the flexibility of price setting. Moreover, the augmentation of customer satisfaction, reinforced customer confidence, and fortified customer commitment are facilitated through the consideration of customers' views on service innovation, which encompasses organizational innovation, process innovation, and product innovation [22].

3.3.3 Innovation Contributes to Driving Industry Development

Innovation sometimes serves as the engine for the growth of an entire industry. Innovation by one company may inspire similar breakthroughs by others, fostering development and expansion throughout the sector. Market-creating innovation drives economic development and growth [8]. This kind of innovation turns complex and pricey goods into ones that are more readily available to and more affordable for a broader number of consumers, increasing demand. Market-creating innovation may in some cases even result in the birth of completely new product categories. New product categories are able to draw in a larger customer base, increase the size of the market, foster competition, and encourage other businesses to innovate at the same rapid rate as they do by delivering novel solutions and meeting unmet consumer requirements.

3.3.4 Innovation Helps Maintain Market Stability

For oligopoly competitive market, this is because of the innovative activities among competitors, the continuous updating market’s products and services, and consumers can get more choices. In addition, this is also a good means to avoid price wars. By competing for innovation, firms will reduce the likelihood of using price wars to gain more customers. Various price strategies are devised by marketers in price competition to outperform competitors. They usually set the price of their products the same or lower than their competitors to gain market share [23]. Long-term decision-making for consumers and businesses can be hindered by the frequent fluctuations in prices, leading to the emergence of market volatility.. However, innovation can provide a company with a unique product or service, enabling it to differentiate itself from its competitors in terms other than price, thereby reducing the risk of price wars and maintaining market stability.

In conclusion, whether it is an oligopoly market or an oligopoly competition market, innovation is an essential factor to meet consumer demand, maintaining competitiveness, promote market progress and maintain market balance. Innovation can have different impacts under different market structures, but its core role is to promote economic and social development.

3.4. Drawbacks of **Oligopolistic and Oligopolistic Competitive Market**

Firstly, to avoid fierce competition, dominant companies in an oligopoly may want to produce comparable goods. Less product differentiation may result from this, which would reduce the variety of products available to consumers. For instance, Apple and Huawei will both introduce new smartphones around the start of September 2022. Coincidentally, both phones have a feature that permits offline messaging. When there is no ground network signal or in specific situations, Huawei's Mate50 line of mobile phones can still transfer data to the outside world. In an offline mode, the iPhone 14 series may also transmit emergency distress signals via communication satellites. Customers get dazzled by this kind of technological advancement and are unable to make decisions.

Secondly, major companies may pursue their own interests in an oligopoly market by manipulating prices and limiting competition [13]. Continuing with OPEC as an example, OPEC will restrict production when the price is likely to drop in order to prevent their oil prices from falling [13]. Customers may spend more than this amount as a result of artificially high product prices. Originally, the price included more.

3.5. Countermeasures and Recommendations

Firstly, the market should encourage competitive innovation. Governments and institutions can create incentives to encourage other competitors to enter the market and innovate. For example, government grants, incentives for innovation, lower barriers to entry, or regulatory constraints [24] encourage new firms to enter the market and bring about competitive innovation.

Secondly, Enhanced Antitrust Regulation: Increase oversight of oligopolistic firms to ensure they do not abuse market power, limit competition, or stifle innovation. Regulators can review and monitor market behaviour and take necessary steps to maintain a competitive and innovative environment. For example, back in 2011, steps were taken to prevent the impediment of software market competition due to Novell's patent transfer. The U.S. Department of Justice intervened by imposing antitrust supervision on Novell's patent transfers. Novell was accused of transferring patents related to Linux to a consortium comprised of four prominent proprietary software firms [25]. By imposing antitrust supervision, this action resulted in a favourable outcome, as it bolstered the advancement of innovative software solutions among competitors of companies engaged in patent consolidation [25] .

Thirdly, the government can promote technology sharing and cooperation between oligopolistic enterprises. This helps to accelerate the innovation process, promote the technological development of the industry as a whole, lower market barriers, and promote competition.

For both oligopolistic and oligopolistically competitive markets, innovation is a key driver of growth. Therefore, the above-mentioned different countermeasures can be adopted to promote innovation, to promote better economic and social development.

4. Conclusion

In the above, through the comparison of oligopoly market and oligopoly market competition, It can see that these two markets not only have their differences but also have similarities. They both profoundly affect the economy because they are two significant market structures in the contemporary economic system.

The varied competition between businesses, which is prevalent in many industries like software, aircraft, and automobiles, is a clear sign of oligopoly competition. All oligopoly firms are interdependent in an oligopoly competitive environment. An oligopolistic market, on the other hand, has a more severe market structure because a few businesses or vendors control the whole market. Thus, to varied degrees, market control, price stability, and consumer welfare are impacted by the underlying differences between the two markets.

However, although these two markets have different degrees of difference, they have one thing in common, that is, motivation of innovation. In both oligopoly competition and oligopoly markets, since firms are affected by market competition, they both have a strong drive to innovate. The impact of innovation on the economy and society at all levels is profound and important. A competitive edge within a fiercely contested market can be upheld through the continual enhancement of product and service quality, efficacy, and sustainability via innovative practices. Furthermore, the process of innovation contributes to the progress of industries, the steadying of prices, the cultivation of distinctive competition, and the reinforcement of market positioning. For all its benefits, innovation is not without its challenges. Enterprises need to face risks and uncertainties when pursuing innovation, and the resources and time invested may not be able to obtain the expected returns. In addition, it is also very possible that companies may be weak in innovation because of their monopoly position.

In conclusion, both oligopoly market and oligopoly market competition have an inseparable relationship with innovation. Innovation is also an important engine that can drive social progress and economic growth.

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