

# THE THEOANTROPOCENTRIC BASED MODEL OF DEMAND AND SUPPLY

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**ABSTRACT:** This paper is focused on criticizing Marshall's supply and demand theory. Marshall's theory was identified by strengths and weaknesses, so be looked solution to make a perfect theory. The result of the analysis describes that Marshall's theory is the basis of most theories in the study of economics. Many theory, like monetary theory, fiscal theory, consumer behavior theory, etc., was developed from that theory. On the other hand, Marshall's theory has some weaknesses if looked up from a morality or religious perspective, because morality and religious values are absent from theory. So, some weaknesses of theory be repaired by inserting an axis and ordinate reflector, which can be used to control outcome transactions from morality and religious value perspectives. The new supply and demand theory is named universal-ethics supply and demand theory.

**Keywords:** Marshallian, supply and demand theory, moral and religious value, universal ethics.

## I. INTRODUCTION

Marshall's Supply and Demand Curve is very dominant in learning economics. Even studying this curve is an obligation for students who are studying economics. The reason is that this curve raises economic models that are used to analyze economic activities. This is in line with the statement of Mankiw [5], who said that mastering the theory of demand and supply mean understanding half of the economics.

The Marshall supply and demand curve does not always have a strong argument. Some theorists deny the power of the theory. First, Giffen, who introduced Paradox Giffen, found that there is a situation where an increase in the price of an item causes people to consume more of that item (Giffen and Lindsey, 1984, p. 188-192; Nicholson: 1995, p.114). Second, Ernst Engel, who later became famous for Engel's Law, said that the more income increases, the lower the proportion of spending on food (Nicholson: 1995, p.102). Third, the Possibility Frontier Production Theory which says that Marshall's supply and demand curve assumes unlimited production, even though the reality of production is limited (Nicholson: 1995). These findings are certainly contrary to the Marshall supply and demand curve.

Differences in theory according to Nicholson are reasonable, because each theory has its own weaknesses. The weakness of the theory can be viewed from the assumptions and predictive power of the theory. The three opinions above, which criticize the Marshall theory, see from the side of the assumptions that are the theoretical foundation. Friedman (1953) reminded us that the weakness of theory is not only seen from its assumptions but also can be seen from the ability to predict.

When viewed from the ability to explain or predict, Marshall's supply and demand curve has good analytical power. The curve can explain changes in demand, supply, prices, producer surplus, consumer surplus, oversupply, and so on. Of course, the basic assumption, namely *ceteris paribus*, remains in force. The power of theoretical analysis is not only suitable to explain the scope of microeconomics, but can also be developed for macroeconomic analysis.

Another advantage of this supply and demand curve is that it can be developed into several economic models. Some economic models are developed from the basis of this curve, such as the IS-LM curve, indifference curve, production curve,

cost curve, and so on. Because of the flexibility and power of this development, it seems that the demand and supply curves are the basis that must be studied in economics. However, because the philosophical basis of this theory is positivistic, it is very easy to find fatal weaknesses of this theory, especially when viewed through a religious approach.

Some theorists criticize economic theory which ignores elements of religiosity, such as Veblen, D'aveni, Mausudul. They argue that the neglect of the religiosity approach causes a weakening of well-being and harmony in life. Because religiosity is inherently inherent in the soul of every human being. This cannot be ignored, because if there is a neglect of the element of religiosity in economic theory, it will influence economic behavior. In other words, if the formed economic theory ignores religious values, then economic behavior will also ignore religious values. Religion serves to create harmony. With the neglect of the values of religiosity, it is only natural that the main economic problems up to now cannot be overcome. Unfortunately, criticism is limited to discourse in the ethical realm that does not include the analysis model output that can replace the power of Marshallian's demand and supply curve analysis. So, the model is still used today.

The purpose of this article is to find the fundamental weaknesses of the supply and demand curves, then explain the improvements to create a new supply and demand curve, which is named the Theoantropocentric Based Supply and Demand Curve. This new curve is complemented by ethical analysis and religiosity so that the character is not merely materialistic and *homoeconomicus* but is also spiritualistic and *homoreligious*.

## II. THEORY REVIEW

### A. Epistemology of Demand and Supply Curves

Marshall's supply and demand curve was inspired by the dialectic of previous economic thoughts. Adam Smith's economic thinking, David Ricardo, Karl Marx, and W.S. Jevon also inspired Marshall to bring up a new paradigm in analyzing economics. This new paradigm is marked by changing the notion of political economy into economic understanding. Thus, the position of economics is equivalent to mathematics, physics, and biology, which are equally governed by nature, not by policy. With this paradigm, Marshall's economic thinking has the character of economic

biology, not economic dynamics. The basic assumption that underlies Marshall's thinking is the same as that used by

demandline, which decreases from the top left to the bottom right. Producer behavior is referred to as the supply curve

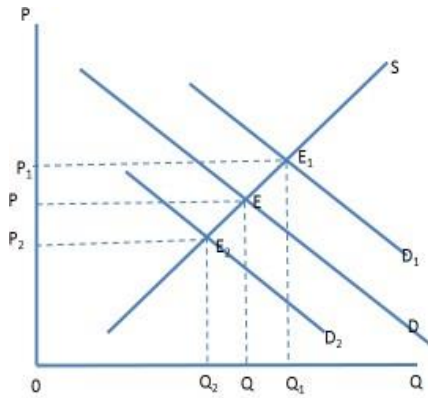


Figure 1. Shift of Demand Curve

Adam Smith and David Richardo, namely natural freedom, combined with models that think of evolution theorists, such as Charles Darwin, Herbert Spencer, and William Graham Sumner. With this viewpoint, the individualist style, perfect competition, competition, and market economy make the characteristics of Marshall's thinking: Marshall's style of thinking can be seen from various things that have been thought of, such as the principle of supply and demand, the determination of prices, production costs, theories of

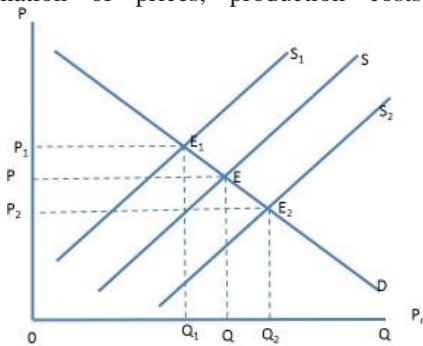


Figure 2. Shift of Supply Curve

producer and consumer behavior, short-term and long-term equilibrium, and so on.

These Marshall thoughts [6] reinforce the thoughts of Adam Smith and David Richardo that are based on universal prosperity and natural freedom. For example, discussing the value of a product. Smith and Richardo both say that the value of a product is determined by the cost of production. However, this opinion is different from the Austrian (Marginalist)School which argues that the value of a product is not determined by the cost of production, but by the utility of a product. Both production costs and utilities are transformed into prices. By Cournot, this opinion is formulated into  $Qd = f(P)$ . That is, demand is influenced by prices. This series of opinions is modeled by the Marshall into a Demand and Supply curve, where abscis represents Price ( $Y = P$ ) and ordinate represents quantity ( $X = Q$ ). Consumer behavior is referred to as the demand curve, described as the

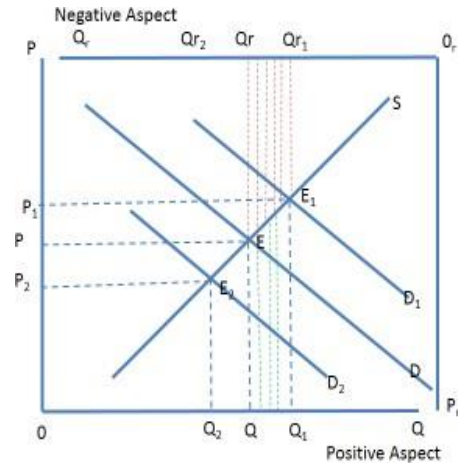


Figure 3. Shift of Demand Curve with Benefit Overview

which is described as a supply line, which increases from the lower left to the top right. Supply curve theory adopts the Marginalist School of thought, such as Jevon, Menger, Walras about utility. While the supply curve adopts the Richardian patterned cost theory [12].

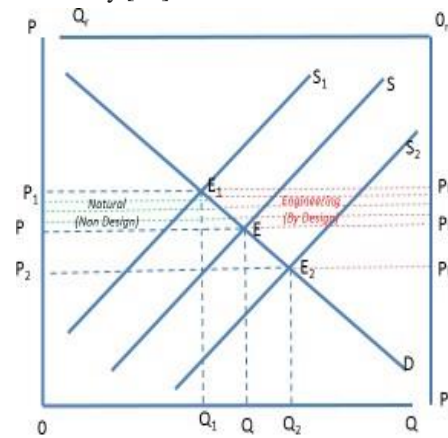


Figure 4. Shift of Supply Curve with Benefit Overview

The supply and demand curve, which describes price occurrence, actually contains the concept of marginal cost and marginal value. These two concepts are contained in the slope of the curve. For example, the supply curve depicted sideways from the lower left to the right shows that the addition of production costs is due to the addition of production, and vice versa. However, in the supply and demand curve, Marshall does not assume limited production and the absence of other products to be chosen by consumers. So the curve can only explain transactions on one product and cannot explain when many products are in one market. This limitation then received criticism and improvements from the Frontier, which led to the concept of production possibility frontier which underlies the emergence of the general equilibrium model.

Although there are weaknesses, the theory of supply and demand initiated by Marshall and expressed in the form of

this curve is very strong and can be used to show market behavior, even to predict events that will occur. For the strength of this theory, Milton Friedman [1], Samuelson [20], Mankiw [5], Sukirno [14], appreciate it well, so, naturally, the Marshall Supply and Demand Curve is used in the basic teaching of Economics.

### B. Ontology of Demand and Supply Curves

Marshall's demand and supply curve has strong characteristics. Some things can be associated with the character, such as: 1) using key variables that can explain the outcome specifically, 2) using the assumption of *ceteris paribus*, 3) each variable can be explained incrementally, 4) using the concept of utility, 5) combining marginal utility theory with curves (supply and demand), 6) explanations requiring examples of reality,

7) the method is deduction, 8) able to abstract theory in the form of models, and 9) each variable is denoted. The completeness of these characteristics has led to the Marshall theory of supply and demand as being the main analytical tool in economics. The strength of the characteristics of this theory makes it possible to develop it further. So many subsequent economists developed theories with the Marshallian pattern like that. Several economists include: 1) Frank H. Knight [3] developed the theory of total production, which discussed the marginal theory of products and average products. 2) Jacob Viner [12], known as Knight's student, gave rise to the theory of perfect competition. 3) Edward Chamberlain and Joan Robinson developed the theory of monopoly markets and oligopoly markets [16]. The curve is also widely developed to explain the theory of monetary economics, international trade theory, monopoly theory, fiscal policy theory, and so on.

### C. Axiological of Demand and Supply Curves

Various weaknesses in this supply and demand theory can be identified as follows: 1) The Supply and Demand Model only uses an economic approach, so the approach is not comprehensive, only partially. However human behavior is not only economic. Other variables are quite dominant in influencing human behavior, such as religious teachings, ethics morality, and so on. This factor is not explained in the model. 2) The philosophy underlying this theory is the utilitarian Benthamian. With such a philosophy the axiology of the theory leads to a practical level that is individualistic and tends to produce homo-economicus. The basic philosophy that is utilitarian and leads to individualistic and only emphasizes economic review, will lead to zero-sum game patterns with a tendency to lead to hedonistic behavior. These two weaknesses indicate the next weakness. 3) Lack of social care. Social care tends to be overlooked and replaced by transactional interests. This third weakness can have a very terrible impact because it can relax the nodes of sociality, which means it is very contrary to the teachings of religious morality. Humans in their lives generally pay attention to the religious side of a psychological nature. The neglect of religious values will result in the alienation of human identity.

### III. DISCUSSION

The assumption of *ceteris paribus* inherent in this theory is indeed quite strategic, only this assumption and other characters of the theory of supply and demand cannot explain

morality. Using graphical analysis, a meeting between the supply and demand sides will show prices as a form of balance. If the supply is fixed and demand increases, the demand curve will shift to the right, so the meeting with the supply curve will show a new equilibrium price higher than the original price. Conversely, if there is a decrease in demand while the supply is fixed, then the demand curve will shift to the left, and the equilibrium price will be lower [14, 5]. If what happens is a fixed demand while the supply decreases, the supply curve will shift to the left, so that the meeting with the demand curve will show new prices that are increasing. Conversely, if the demand remains and the supply increases, the supply curve will shift to the right, and the equilibrium price will be lower than the original.

As it is shown in the picture of the demand-supply curve (Fig. 1) above, the curve shift due to this transaction is limited to analysis of economic aspects only, which ignores social, morality, ethics, and religiosity aspects. In fact, in reality, human actions in the economy still pay attention to these other aspects. Moreover, individuals who pay attention to the teachings of their religion [10]. To be able to analyze in full about these other aspects, the Marshallian demand and supply curve must be developed again with the addition of the Y axis and X axis originating at the reflector O point [21].

### D. Supply and Demand Curves Based on Religious Morality

The addition of the Y and X axes originating at the reflector O point further increases the ability to analyze the Demand and supply curves, because they can be analyzed based on social, moral, ethical, and religious aspects. The picture becomes as follows:

The reflector axis in the curve above serves to read behavior or a negative situation. In a positive behavior or state, it is still seen from the original axis. For example, in Figure 3, an increase in demand ( $D$  to  $D_1$ ) due to positive things indicates an increase in social welfare from  $Q$  to  $Q_1$ . However, if the shift in the  $D$  curve is caused by negative behavior, for example, because transactions are funded by corruption, from illegal logging, or money politics, or due to consumption of illicit goods or services that are prohibited by religion, it must be seen from the axis of the reflector. When viewed from the axis of the reflector, what happens is a decrease in the level of social welfare [21].

The same applies to the supply side in Figure 4. The supply curve shift must be viewed from the causes of the shift. The reduced supply can be caused by two things, namely: first, the mechanism that occurs naturally, and without any engineering (usually this happens when there is a perfectly competitive market). Second, the mechanism that occurs with engineering to raise prices. This kind of thing usually happens in monopolistic market conditions (read: bidders make it possible to do a monopoly). In the first mechanism, the price increase will reduce the consumer surplus, and the surplus will be transformed into the profit of the seller. The transformed surplus area is the area of  $P_1E_1EP$ . The consumer surplus decreases to that extent, and the seller's surplus increases in that area. As long as the mechanism is natural, this is not a problem. Because something that happens naturally in a moral or religious review is legitimate. But if

what happens is because of the role of engineering to increase the price of goods (*ikhtikar*), besides the consumer surplus decreases in area, the seller loses. It is precisely because of this behavior that sellers experience a decline in morality as wide as  $\Pr1E1EPr$ . What is obtained from economic benefits from his actions is not proportional to the decline in morality due to his actions [21].

Economic benefits are only temporary, but the decline in morality can have very long consequences, even to the point of the hereafter. Therefore, Islam teaches that behavior that leads to tyranny, like what the seller does in this discussion, is avoided. Because indeed that includes destructive behavior. As a result of destructive behavior does not have to just wait for accountability in the hereafter, but the impact in the world can be directly felt. In perfectly competitive markets, for example, sellers who carry out such behavior (*ikhtikar*) are bound to be abandoned by their consumers. When a seller is abandoned by a consumer, the destruction of the business has already occurred. In the monopoly market, there is indeed consumer dependence on the seller. However, monopoly behavior itself has been limited by various rules that prohibit monopoly, such as the anti-trust law, the establishment of KPPU's business competition supervision commission), and the like.

#### E. Discussion on Philosophy

The Marshallian Demand and Offer Theory has anthropocentric characteristics. The focus of attention on humans alone ignores the role of God. It is as if humans are free from the context of the values of morality and religious teachings. As a result, all human behavior in economics is only expressed in the economic aspects which are monetically sized. Never measured based on the values of morality or religious teachings. The theory clearly shows the separation between economics and religion. The impact is, human behavior is fully only accounted for by humans themselves, so that the size of right and wrong is only a measure of whether or

not it is useful for humans. The more useful it is, the action is good. Because the standard size is monetical, the good is only those who succeed in accumulating as much monetical value as possible. This kind of mindset is a feature of capitalism, which corresponds to teleological-individualistic behavior.

The impact of teleological-individualistic behavior is an effort to achieve goals for individual pleasure, regardless of social interests. This is called hedonism. Of course, this is different from religious teachings which emphasize a balance between individual interests and social interests. Individual interests may be sought, but social interests must not be ignored. There are communitarian values that must be considered. So, all behaviors of religiosity lead to harmonization, between individuals and society, between humans and other creatures, and also between humans and God. This harmonization is a manifestation of balance, which also means minimizing conflict. Marshall's teleological-individualistic theory can be socially oriented. It's just that, the sociality will be patterned utilitarianism-Benthamian the credo the greatest happiness of the greatest number [15]. This credo when implemented in the policy will ignore the minority, because it is only oriented to the interests of the majority. Of course, this is different from religious teachings which oblige the people to empower

minority parties.

The discovery of weaknesses in the Marshallian theory does not mean having to cover all the forces in the theory. Strengths must still be recognized, and those weaknesses must be overcome. With the limitation of weaknesses as raised in the discussion above, it means that this theory of Marshallian supply and demand has led to a theory of universal ethical supply and demand. That is, this theory can be used universally while promoting ethical values, which are derived from the values of Islamic morality and teachings. Therefore, Marshall's thoughts were still adopted, even though there were additional axis reflectors.

#### IV. CONCLUSION

Marshallian demand and supply theory is a long dialectic result of various discussions conducted by previous thinkers. Therefore it has the power that can be used universally. However, the anthropocentric pattern causes the theory to stop at the teleological-individualistic level which ignores the social aspects. Although the Marshall theory can be carried out in social reviews, yet, its estuary stops at the utilitarian who neglects the role of the minority. Such an illustration causes the Marshall theory to have weaknesses in the moral aspect, especially if it is judged from the aspect of religiosity. The weakness in the moral side of the Marshallian Demand and Supply curve is corrected by the teleoanthropocentric paradigm that pays attention to moral values and religiosity. The form of correction is done by entering the reflector axis on the curve. The presence of the axis of this reflector can see the role of moral and religious teachings. Thus the demand and supply curves have a universal-ethical pattern.

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