

PÓŁROCZNIK WYDZIAŁU NAUK SPOŁECZNYCH

# NAUKI EKONOMICZNE TOM XXXVII



**ECONOMIC SCIENCES** 





### Wydawnictwo Naukowe Akademii Mazowieckiej w Płocku

## NAUKI EKONOMICZNE Tom XXXVII

**ECONOMIC SCIENCES** 



Tom 37/2023, ss. 5-33 ISSN 2719-4175 e-ISSN 2719-5368 DOI: 10.19251/ne/2023.37(1)

www.ne.mazowieacka.edu.pl

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# THE VALUE OF ARTEFACTS CREATED FROM THE DYNAMIC PRODUCTION FUNCTION

#### **Abstract**

The purpose of the article is to analyze the value of artefacts created from the dynamic production function. The article relies on secondary source material, and is a work of synthesis and comparative science. The procedure has been to present thoughts and theories from outstanding scientists, authors and individuals who engage in topics related to economic history, museology, innovation, entrepreneurship and ethics. The understanding of value dates back to Aristotle and thoughts from classical economic theories on value have been presented. Value may be of personal, scientific, political, moral, economic and cultural nature. In modern economic theories value is determined by factors in the production function; land, labor and capital. The entrepreneur's impact on the creation of artefacts from the dynamic production function is significant. As an artefact, the object changes its value. Archeological artefacts and artefacts created from the dynamic production function have different kinds of value. The value of artefacts will not only



be to display the work and life of entrepreneurs, but also to educate scientists and increase their understanding of the dynamic production function.

**Keywords:** Artefacts, value, museum, museology, independent science, dynamic production function, entrepreneur, ethics.

JEL Classification: B10, E20.

#### INTRODUCTION

Theories on value have been developed since the time of Aristoteles, where different philosophers and scientists like Richard Cantillon, John Locke, Adam Smith, Karl Marx, John Stuart Mill, William Jevons and Carl Menger have discussed the value related to labor, the production of goods and exchange of goods.

In early classical economic thought, Aristotle declared that the source of value was based on need. He distinguished between value in use and value in exchange. In 1770, Adam Smith published *The Wealth of Nations* where he stated: "The value of any commodity, therefore, to the person who possesses it, and who means not to use or consume it himself, but to exchange it for other commodities, is equal to the quantity of labor which it enables him to purchase or command. Labor, therefore, is the real measure of the exchangeable value of all commodities" (Smith, 1776/2007, p.47).

Karl Marx's approach to value was through classical theories. In his work *Das Kapital*, he concluded that value had a moral, a judicial and an economic implication. "The value of a commodity, therefore, varies directly as the quantity, and inversely as the productiveness, of the labor incorporated in it" (Marx, 1867/1977, p. 6).

During the 19th Century, economic theories from John Stuart Mill, Williams Jevons and Carl Menger discussed that value may not be determined by labor. "The value of a commodity, therefore, varies directly as the quantity, and inversely as the productiveness, of the labor incorporated in it" (Mill, 1885, p. 286-287). All commodities may rise or fall in their monetary price. Individuals determine the value based on how the goods will satisfy their wants and needs. There cannot be a general rise of values.

Joseph A. Schumpeter wrote about value and social value in his early work On the Concept of Social Value from 1908. He distinguished between individual value and social value. As he stated that "only individuals could feel wants. The distribution of wealth is important for determining values and shaping production, and it can even be maintained that a country with one and the same amount of general wealth may be rich or poor according to the manner in which that wealth is distributed. For two reasons we have to start from the individual: first, because we must know individual wants; and, secondly, because we must know individual wealth" (Schumpeter, 1908, p. 213).

In modern economic theories, value is determined by factors in the production functions land, labor and capital. Value may also be of a personal, scientific, political, moral, spiritual or cultural nature.

#### 1. LITERATURE REVIEW

The literature review is based on works by Adam Smith, John Stuart Mill, Joseph A. Schumpeter, Jan-Urban Sandal, Daniel Miller, Richard Cantillon, Karl Marx and John Maxwell. The scientist cited comes from various schools of thought, from early economics to modern economics. On museum science, works by Stephen E. Weil, Peter van Mensch, Ivo Maroevic, Edward P. Alexander and Mary Alexander have been examined.

There are few scientific works written on the topic of artefacts created from the dynamic production function.

#### 2. RESEARCH METHODS

This article aims to analyze artefacts, the value of artefacts created from the dynamic production function, their role in innovation and entrepreneurship and the traces they leave from the past. The transformation of an object, which previously has been a part of a production function, has been discussed. The procedure was to present thoughts and theories from outstanding scientists, authors and individuals. Articles and books that are cited in this article have been carefully chosen.

This article is a work of synthesis and comparative science. It is a study performed during the Documentation, Exhibition and Museology Course DM-01-A at Fil. Dr. Jan-U. Sandal Institute. This study is based on theories on value, ethics, museology, artefacts, entrepreneurship and innovation.

The study may be useful for students, teachers and scientist in the field of entrepreneurship, economic development and museology, and it can be of interest to individuals in all sphere of the society. It may be useful for entrepreneurs



and individuals who want to create new combinations of the first and second production function.

#### 3. RESULTS

An object is a physical thing that can be seen, touched and used. Objects have a set of attributes and behaviors, and are owned by one or several individuals. Objects are used in the production function. When they no longer serve as means, the nature of the object is transformed. It may become an artefact, and it's the owner who decides whether the object becomes an artefact. In the creation of artefacts, the intention is to preserve any kind of input factors that have been used during the dynamic production function. Artefacts may display two purposes, the function of the object and the intentions of the maker. As an artefact, the object changes its value. The value of an artefact can be personal, scientific, moral, economic, political and cultural.

The value of an artefact on a personal level is to show the life and works of the individual, his aspirations, the creation of something of importance, and the mark that is left on the world. The artefact may display the creativity and problem solving the creator has performed.

The value of an artefact on an economic level is an investment for the future, tax value, investment value, and tourism. Museums charge entrance fees from the visitors in order to see the artefacts displayed.

Artefacts may be of cultural value for the society. They are proof of cultural heritage and teach us about the past. The artefacts show the identity, culture and heritage from a group of people from a specific period of time.

Artefacts may also have political value such as to establish the importance of a national identity and to show a national state sovereignty. The European colonial powers are examples of such value.

Then there is the scientific value of an artefact. To contribute to the research and education of independent scientists and to show physical objects from creative processes, in which it may have value for both the individual and the society.

The moral value of an artefact can be on religious or spiritual level. They are artefacts that show religious heritage and contribute to spiritual experiences.

An artefact in general term is an object created and designed by humans, and is of a different nature than natural objects. An artefact exists as a product

of human behavior. The object has a cultural, historical, economic or archaeological interest and becomes an artefact after its productive use.

Different types of artefacts exist in the world today. They are discovered in various places and have been modified by humans and nature in one way or another. An archaeological artefact comes from sources like graves or tombs, from domestic settings, objects from religious purposes, and from underground wealth deposits.

Artefacts from the dynamic production function are created when an object is no longer relevant, useful or important. It can be destroyed, sold, donated or made into an artefact. Through these artefacts, we can understand the life and work of entrepreneurs.

#### 3.1. MUSEOLOGY

Historically museums were established as institutions that involve in collection, preservation, cataloguing and exhibition of artefacts considered of great interest and value.

International Council of Museums defined in their meeting in 1955, that museums as "permanent organizations in the service of society and its development, open to public, which acquires, conserves, researches, communicates and exhibits the tangible and intangible heritage of humanity and its environment for the purposes of education, study and enjoyment" (Günay, 2012, p. 1251). Today museums serve as places for informal education and communication tools with the public, both for locals and foreigners.

"Museums can collect artefacts in different ways: purchase, donation, exchange of artefacts, and off course robbery, to mention a few. The fact raises moral and political problems. Most, but not all of the objects that museums hold, have been moved out of countries as a result of wars, occupation, and unfair purchase, and the owners have been left without any rights or protection of their valuables or any economic compensation, or any other kind of benefits" (Sandal, 2019, p. 7). This creates ethical and political problems when nations have called for a repatriation of artefacts stolen during war, occupation and from illegal markets. Museums are reluctant to give artefacts back to their country of origin. Museum curators argue that they cannot guarantee proper safety and preservation of the repatriated artefacts, but there are also laws that prevent museums to do so. One example is The British Museum Act from 1963.



After 1970, some museums have modified how they collect new artefacts, due to UNESCO's Convention on the Means of Prohibiting and Preventing the Illicit Import, Export, and Transfer of Ownership of Cultural Property.

Nowadays, museums obtain new artefacts from public work, such as digging ditches or roadworks, or through coincidences.

Museums are involved with both the intangible as well as tangible part of the objects. Intangible components may be symbolic, spiritual, ideas, personal meanings or emotional value and therefore recognized as an integral component of the artefacts.

Museum science, also called museology, is the study of museum history, activities and their role in society. Museum science evolves from practice, is verified by practice, and precedes practice.

"Museology, which opens up wide perspectives of context, permeation of meanings, variability of meanings of museum objects, their many-sided applicability, expands the museum reality beyond the defined museum space to human life, to the everyday future, but it remains nevertheless a very abstract phenomenon if we consider it from the aspect of providing instructions and manuals for its application. Theoretical museological thought should open up views, widen the horizon and break through the frameworks and limitations of ancient prejudices. Its ideas must be open and free. They must be within the function of man and society, because only thus can they save the heritage (in the totality of all its meanings) for the future in the active present" (Maroevic, 1997, p.79).

According to the late museum director of New York's Museum of Modern Art, René d'Harnoncourt, there is no such thing as a neutral installation. This is because museums are defined by the limitation of time, space and access. "The Smithsonian Institution addressed this same issue in the fall of 1988 when it played host to an international conference—The Poetics and Politics of Representation—that addressed the question of whether and how one culture could appropriately present another in a museum setting" (Weil, 1990, p. 119).

Through museum science, it is possible to analyze the artefacts created during the dynamic production function, the innovative entrepreneur, the significance of the process and its objects for society today. Artefacts created from innovations are unique because they show a new combination of land and labour that previously has not been done before. They show the process of the entrepreneur when he carries out new combinations. The tangible and

intangible form of objects made available for future generations, is an effective way to ensure knowledge of the entrepreneurial process to be passed on.

#### 3.2. THE DYNAMIC PRODUCTION FUNCTION

In his book *Theorie der wirtschaftlichen Entwicklung* from 1912, Joseph A. Schumpeter stated that innovation is initiated by a single entrepreneur who is able to combine land and labor in a way that previously was not possible or not as efficient as before. Schumpeter's theories are still valid in present time because an entrepreneur must have the same talent today as 100 years ago. The entrepreneur must obtain capital and be able to realize the means of production. Innovation in itself does not combine land and labor, but it is a person, an entrepreneur, who performs the actual combination.

"But whatever the type, everyone is an entrepreneur only when he actually carries out new combinations, and loses that character as soon as he has built up his business, when he settles down to running it as other people run their businesses" (Schumpeter, 1934/1983 p. 184).

Entrepreneurs use their intuition and have a determination to try new ways of solving problems. After the entrepreneurial process has finished and the production function has been established, the entrepreneur changes his role.

"Development in our sense is then defined by the carrying out of new combinations" (Schumpeter, 1934/1983 p. 168). When new combinations grow, they will disrupt old production functions, and create a new production function. The new combinations can be carried out in five areas according to Schumpeter:

- 1. The introduction of a new good.
- 2. The introductions of a new method of production.
- 3. The opening of a new market.
- 4. The conquest of a new source of raw material or half-manufactured goods.
- 5. The carrying out of a new organization of any industry.

Innovations are not dependent on the government, financial systems, capital, or political policies. Innovations have to adapt to changes in the economy when the innovation process has finished and the production function has been established.



#### 3.3. THE LEADER OF INNOVATION

The entrepreneur is the creative leader of an innovation. To be an entrepreneur is not a profession, but a position that ends when a business is established and enters a static production function. Entrepreneurs are individuals with qualifications that make them able to imagine future results and make decisions based upon unknown factors. Anyone in the society can take the position. They use their intuition and have a determination to try new ways of solving problems. These individuals must be able to manage themselves to get things done.

#### 3.4. FUNDAMENTAL PRINCIPLE OF MORALITY

Theories on ethics have been developed since the time of Aristoteles, where different philosophers and scientists like John Locke, Jeremy Bentham, John Stuart Mill and Immanuel Kant, have stated a belief in the goodness of humanity and that happiness is a fundamental principle of morality.

"First, law must be founded on the will of a superior. Second, it must perform the function of establishing rules of behavior. Third, it must be binding on humans, since there is a duty of compliance owed to the superior authority that institutes the laws" (Locke, 1663-64, p. 83). For Locke, morality as a concept is best understood in reference to a superior structure of authority. Morality as a virtue is universal and can be understood unmistakably by human reasoning.

Ethical theories can be adopted to all levels of society, including museum science and business activity. Benjamin Franklin said that "leading one's life with virtue and giving back to society is the opportunity to accumulate wealth" (Franklin, 1791/2003). Franklin set out to develop his good habits through the likes of philanthropic offerings, because the right way was doing well by doing right.

Elizabeth Anderson criticizes philosophical theories on value because there exist a contempt for "commonsense ways of thinking about ethical problems". In her book *Value in ethics and economics*, she emphasizes "the need to embrace non-consequentialist norms to make sense of the higher ways of valuing things and making our lives meaningful over time" (Anderson, 1993).

#### 4. DISCUSSION

When an object no longer serves the means as it was originally intended, the nature of the object may be transformed into an artefact. Artefacts may display

two purposes, the function of the object and the intentions of the maker. Not all objects are of scientific and historical interest.

There is a difference between archeological artefacts and artefacts created from the dynamic production function. Archeological artefacts are mainly found from sources in nature. They are objects that have been used and discarded.

According to Locke, morality as a virtue is universal and can be understood unmistakably by human reasoning. Ethical theories can be adopted to all levels of society, including museum science and business activity. Throughout history, artefacts have been collected during war and occupation, exchange of artefacts, donations, from illegal markets and theft. The artefacts have been removed from their original context and displayed in buildings often far away from where they were located. They no longer belong in the real world, but in an imaginary world of a museum. The artefacts may lose their greater meaning when removed from their original context.

Through museum science, it is possible to analyze artefacts from the dynamic production function. Not all objects that are created during the dynamic production function are of interest for museum science. Natural objects like water, trees and gold is of no interest. It is only objects created before, during and after the creative process, that is of scientific interest. Artefacts created from the static production function do not show the creative process of the entrepreneur. The static production function adapts to changes in the financial market and the artefacts created from this process showcase the changes.

The tangible and intangible form of objects are made available for future generations and is an effective way to ensure knowledge to be passed on. The artefacts are valuable for individuals as well as the society.

Entrepreneurs are individuals who have qualifications that make them able to imagine future results and make decisions based upon unknown factors. They are individual creative leaders of innovations. The entrepreneur, his heirs, a company or the government owns artefacts from the dynamic production function and decides whether it becomes an artefact or not. The owner donates the artefacts to a museum or collection. To exchange or donate outside of the production function where they were operative will have consequences for the understanding of the production function it displays and the artefact may lose its scientific value.

Artefacts have value on different levels in the society. They may be determined by personal, moral, cultural, economic, scientific and political factors.



In Schumpeter's theories, it is important to separate between value for the individual and for the society.

On a personal level, the value of an artefact is to show the life and works of the individual, his aspirations, the creation of something of importance, and the mark that is left on the world. It may also have an economic value for the individual as an investment for the future.

The value of an artefact on a societal level would be the economic outputs in the way of tax value, investment value, and tourism. It may be of cultural value as a proof of cultural heritage and teach us about the past. It may also have political implications such as to establish the importance of a national identity and to show a national state sovereignty.

Then there is the scientific value of an artefact. To contribute to the education of independent scientists, in which it may have value for both the individual and the society.

The value of an artefact from the production function is of a personal and scientific nature, while the value of an artefact from archaeological excavation have a cultural, economic and political value. The artefact created from the dynamic production function display one of five combinations based on Schumpeter's theory: introductions of a new good, the introductions of a new method of production, the opening of a new market, the conquest of a new source of raw material or half-manufactured goods, or the carrying out of a new organization of any industry. The entrepreneur is the creative leader of an innovation and is the one combining land and labor in a new way. It is through his imaginations and decisions that new artefacts may be created from objects in the production function. The artefacts created from the new combinations have never been performed before, and is therefore unique.

As an artefact, the object changes its value. Artefacts have short-term value, such as financial investment, monetary value and personal value. The long-term value of artefacts are political, scientific, cultural heritage and religious. The value may change from country to country and decade to decade.

Archeological artefacts and artefacts created from the production function have different kinds of value. Archeological artefacts have a monetary exchange value. Artefacts created from the dynamic production function are no longer of an interest in a market, and therefore have only scientific value.

#### **SUMMARY**

When an object no longer serves the means as it was originally intended, the nature of the object may be transformed into an artefact. There is a difference between artefacts created from the dynamic production function and archeological artefacts. Archeological artefacts are mainly found in nature. They are objects that have been used and discarded. Artefacts created from the dynamic production function show the entreprenur's creativity and the new combinations of land and labour. They are owned by an individual, company or the government and are donated to a museum or a collection. The owner donates the artefacts to a museum or collection, and in order to keep its scientific value, the artefacts are displayed within the context of where they were used.

Artefacts have value on different levels in the society. They may be determined by personal, moral, cultural, economic, scientific and political factors. It is important to separate between personal and societal values. On a personal level, the value of an artefact is to show the life and works of the individual, his aspirations, the creation of something of importance, and the mark that is left on the world. The value of an artefact on a societal level is of tax value, tourism, cultural heritage, besides showing a national state sovereignty.

Morality as a virtue is universal and can be understood unmistakably by human reasoning. Ethical theories can be adopted to all levels of society, including museum science and business activity. Throughout history, artefacts have been collected during war, occupation, exchange of artefacts, donations, commissions, from illegal markets and theft. When nations have called for a repatriation of artefacts stolen during war, occupation and from illegal markets, ethical and political problems arises.

Artefacts created from the dynamic production function are no longer of an interest in a market, and therefore have no monetary value. It is through the entrepreneur's imaginations and decisions that new artefacts may be created from objects in the production function.

#### **ACKNOWLEDGEMENTS**

This scientific article was created at the Fil. Dr. Jan-U. Sandal Institute, Finstadjordet, Norway under the supervision of Prof. Fil. Dr. Jan-Urban Sandal, Executive Director and Owner at the Fil. Dr. Jan-U. Sandal Institute (Excellence in Science and Education). This article was presented at the 83rd Summit



Conversation on Emerging Issues in Social Entrepreneurship on September 26th, 2022, and soon after published in the journal Economic Sciences.

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