

The importance and impact of canals on the economic growth

[Economics](#)



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Canals “ are natural or artificial waterways used for navigation, crop irrigation, water supply, or drainage” (Encyclopedia Britannica Online, 2009, n. p.). They are important part of waterways such that smaller transportation canals can bear barges or narrow boats. Ship canals, on the other hand, allow sea-going crafts like ships to travel to an inland port or from one sea or ocean to another.

Aside from navigation purposes, inland waterways are multipurpose, for they provide drainage that minimizes the occurrence of flood; irrigation which gives life to agriculture; water supply for every living being; and generation of hydroelectric power, the source of electricity. In Chapter 7 of the book “ The Elements of Shipping” by Allan Branch, the author discusses the importance of maritime canals and inland waterways and the role they played in the development of world economy as well as in the history of civilization.

The author enumerated the great improvements that occurred in the construction of canals and stressed how these changes affected the economic system and the shipping industry. Branch also noted the effects of multi-modal system in the development of canals and in the industry of shipping. Canals played an important role in the history of civilization and in the development of the economy. The need to construct an artificial navigable channel which is different from the channels accommodating sea-going craft or ships had called for the constructions of canals.

The first navigational canal was built in Egypt in 2300-2180 BC when Pharaoh Pepi I sent missions to Nile and this instance was recorded by the Governor Uni of Upper Egypt on writing: “ His Majesty sent me to dig five
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canals in the South and to make three cargo boats and four tow-boats of acacia wood. Then the dark-skinned chieftains [...] drew timber for them, and I did the whole in a single year." (cited in Hadfield, 1986, p. 16). Branch identified some of the most prominent canals in world such as the Kiel Canal, Suez Canal, and the Panama Canal. The Kiel Canal connects the river Elbe at Brunsbüttel with Kiel Fjord at Kiel-Holtenau.

It is the most widely used maritime canal in the world, with an average of 105 vessels per day. Suez Canal, on the other hand, runs from " north to south across the Isthmus of Suez in northeastern Egypt. It connects the Mediterranean Sea to the Indian Ocean with the Gulf of Suez. Suez Canal provides a shortcut for ships between European and American ports and ports located in Southern Asia, Eastern Africa, and Oceania while the Panama Canal joins the Pacific and Atlantic Oceans" (Microsoft Encarta, 2008, n. p). It replaced the long course from Drake Passage to Cape Horn.

Since its opening, it was regarded as a key conveyor for international maritime trade because it can accommodate vessels from small boats to big commercial vessels. The constructions of such passages paved way to commercial expansion wherein the exchanges of goods and people from one country to the other were made possible through the use of small transportation such as barges or narrow boats. Seeing the economic potentials of canals, river navigations were improved and artificial waterways were developed with the construction of stanches in the weirs of water mills and at intervals along the waterways.

" Because shipping was handicapped where barges had to be towed over the weirs with windlasses or manually, the lock and lock basin were evolved to <https://assignbuster.com/the-importance-and-impact-of-canals-on-the-economic-growth/>

raise boats from one level to another. In the 15th century the lock-gate system was much improved with the addition of paddles to control the flow of water in and out of the lock chamber through sluices in the gates or sides of the lock” (Encyclopedia Britannica Online, 2009, n. p.). With improvement on waterways, commercial needs soon encouraged canal construction in many other countries.

Tradesmen found out that inland waterway transport is more cost-effective than any other kind of transport for many types of commodities like grains, coal, and ore. As Branch (2007) put it, canals as trade routes “ encourage lower freight distribution cost, quicker transits and much improve ship utilization productivity” (p. 116). A good example is the construction of Panama Canal. It is a relatively inexpensive passageway, for it saves about 3, 000 miles when conveying goods from United States to Japan and about 5, 000 miles when sailing from Ecuador to Europe.

The Panama Canal serves a number of important world trades, including east coast United States-Asia, Europe-west coast US/Canada, east coast US-west coast South America, Europe-west coast South America, and east coast US-west coast Central America. Cargo moving on these routes includes shipments of grain, coal, phosphates, containerized cargo, chemicals, petroleum products, and some metal goods (Branch, 2007, p. 125). With the establishments of canals, other activities concerned with shipping such as bunkering was developed.

Such areas offer flat land with excellent port facilities for private quays and a position on the ocean trade routes; all these are very important factors in the location of modern large scale industry (Branch, 2007, p. 128). For instance, <https://assignbuster.com/the-importance-and-impact-of-canals-on-the-economic-growth/>

inland waterways networks are playing a major role in the economic development of Europe such that transshipments cargoes were conveyed in the inland waterways network and the market grew fast. The development of big waterway vessels made it possible to accommodate bulk commodities and increased volume of containerized goods and vehicular merchandise (Branch, 2007, p. 128).

As cited in Britannica Encyclopedia (2009), Europe experienced a growth in the “ total tons carried by inland waterways from 385 million tons to 472 million tons in the years 1964 to 1968, whereas in Germany, during 1930s, commercial vessels carried 90 million tons of freight on its inland waterways. By the end of the 1960s the Federal Republic of Germany had carried over 230 million tons a year and the East Germany contributed an additional 12 million tons. On the other hand, the Soviet Union, which carried 239. 5 million tons over its 233, 000 miles of navigable waterways in 1963, transported 322. 7 million tons in 1969”.

Moreover, water transport has established competitive advantage as a carrier for commodities with longer life span, such as minerals, timber, and many agricultural products. Such non-perishable items and agricultural products can be transported from one port to another at a lesser cost. This is true as most international rivers have no navigational charges. Only national artificial waterways are charging toll fees, yet the costs of water transport are mainly operating costs and are significantly lower than the total costs of conveying goods using other transport modes.

Water-transport cost was said to be one-sixth the cost of transport by road and two-thirds the cost of transport by rail (Encyclopedia Britannica Online, <https://assignbuster.com/the-importance-and-impact-of-canals-on-the-economic-growth/>

2009). In summary, “ canals contribute to the economy in a variety of ways in terms of economic development” (The International Council on Monuments and Sites [ICOMOS] & The International Committee for the Conservation of the Industrial Heritage [TICCIH], 1996). First, as drainage, canals help prevent flooding, and with the invention of locks, they also prevent erosion especially on commercial roads.

Second, canals aid to agricultural development and productivity due to construction of irrigation facilities. Third, canals are sources of water which supplies the large population. Fourth, canals are venues for trade and commerce wherein the transportation and exchange of goods around the world are made possible. Fifth, canals could serve as venue for tourism which could encourage economic investments. Sixth, canals are instrument for the development of engineering and shipping skills which are useful to industries, leading to profitable industrial development.

Analyzing the cited importance of canals, we could say that canals were constructed and developed mainly for economic purposes which start from supplying the needs of population and agricultural crops to navigation and transportation of goods for commercial purposes. There is no doubt that with the use of latest navigational technology and traction methods, modernized inland waterways which traverse the continents of North America, Europe, and Asia will always play an increasingly important role not only in shipping industry but as well as in economic development.