

Qualitative research on environmental solutions for ports that reduce cost or increase income for the port community

Introduction & Background

Although environment and sustainability are crucial issues to focus on, industry and economy sometimes have a defensive perspective about it.

Especially in ports that consist of cooperation of many communities and areas from the shipping industry to land transport and logistics.

For example, if we try to look at priorities for ship managers in ports, they choose ports based on factors such as facilities and the distribution center functions of a port without even considering the environmental aspects directly.

Therefore there is a need to focus on solutions that cover the priorities of both parts of the story that are port community and their benefits and sustainability issues of a port.

The research aims to reach a package of environmentally beneficial actions and solutions for ports that are not only zero harmful to the environment but also is a solution for it too. In this way, we can also increase the efficiency of the actions by having the profitability of the solutions inside it.

We also can summarize research in these 2 questions :

What are some examples of possible solutions that have monetary benefits for ports?

How do these examples influence the port and what is the reaction of port communities when they face it?

Literature Review

There are plenty of environmental actions for helping sustainability of the ports. However, when it comes to find a solution that does not interfere with port performance and benefit of port community, there is almost no research that exactly consider both of impacts together.

This was when I found this gap that is and felt it is connected to 2 of my life values that are business and nature.

One of the common examples that has happened in many ports is model shift from road to rail that researches have shown it has increased the port performance together with environment.

Another example is Harborside International Golf Course Chicago, Illinois .

In this project we can see how an innovative environmental solution lead to an income producing concept for the site at Chicago.

Research Design / Methodology

Now we need to explain how we will undertake our own research – in other words, our methodology.

-The way we go is more qualitative for 2 reasons. First is to not deeply loose the focus and energy on numerical environmental and economic data and more dig into transportation perspective of the area as a whole. The second reason is to have capacity to review as many solutions as we can, to give the reader more chance of inspiration by showing many different solutions. In this way we can see the variety angles of perspectives that leads tp innovation and think out of the box.

The way to collect data is to read different papers that have worked on environmental solutions, and see which ones have recorded or at least predicted to influence positively on monetary areas as well as sustainability.

Practicalities / Project Management

The next step is to provide a clear plan of actions for our research.

-First we make 3 categories for studies on ports : environmental solutions, economic impact solutions , solutions that has both of those.

-Then we start to find papers in these areas and put each paper in its category.

-The third step is reading and extracting the connections between the first 2 categories to find the relationship between environmental and economic solutions.

-Then we start to make the last final solution list that consists of the past ideas, and new solutions that we have found by connecting the areas.

Reference List

- 1.Port Choice by Intra-Regional Container Service Operators: An Application of Decision- Making Techniques to Liner Services Between Malaysian and Other Asian Ports (2019)
- 2.Manual of Best Management Practices For Port Operations And Model Environmental Management System
- 3.Port supply chain management framework: Contributing to the United Nations' sustainable development goals