

The Effect of Sustainable Supply Chain Management on Environmental Performance: Applied on Fuel Stations in KSA

Assignment #2

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Research Questions:

- What is the impact of economic sustainability on the environmental performance of Fuel stations in the Kingdom of Saudi Arabia?
- What is the impact of Environmental sustainability on the environmental performance of Fuel stations in the Kingdom of Saudi Arabia?
- What is the impact of Social sustainability on the environmental performance of Fuel stations in the Kingdom of Saudi Arabia?

Research Objectives:

- Determine the impact of economic sustainability on the environmental performance of Fuel stations in the Kingdom of Saudi Arabia.
- Determine the impact of Environmental sustainability on the environmental performance of Fuel stations in the Kingdom of Saudi Arabia.
- Determine the impact of Social sustainability on the environmental performance of Fuel stations in the Kingdom of Saudi Arabia.

Research Hypothesis:

H1: There is a significant positive effect of Economic sustainability on the environmental performance of Fuel stations in the Kingdom of Saudi Arabia.

H2: There is a significant positive effect of Environmental sustainability on the environmental performance of Fuel stations in the Kingdom of Saudi Arabia.

H3: There is a significant positive effect of Social sustainability on the environmental performance of Fuel stations in the Kingdom of Saudi Arabia.

Research Model:

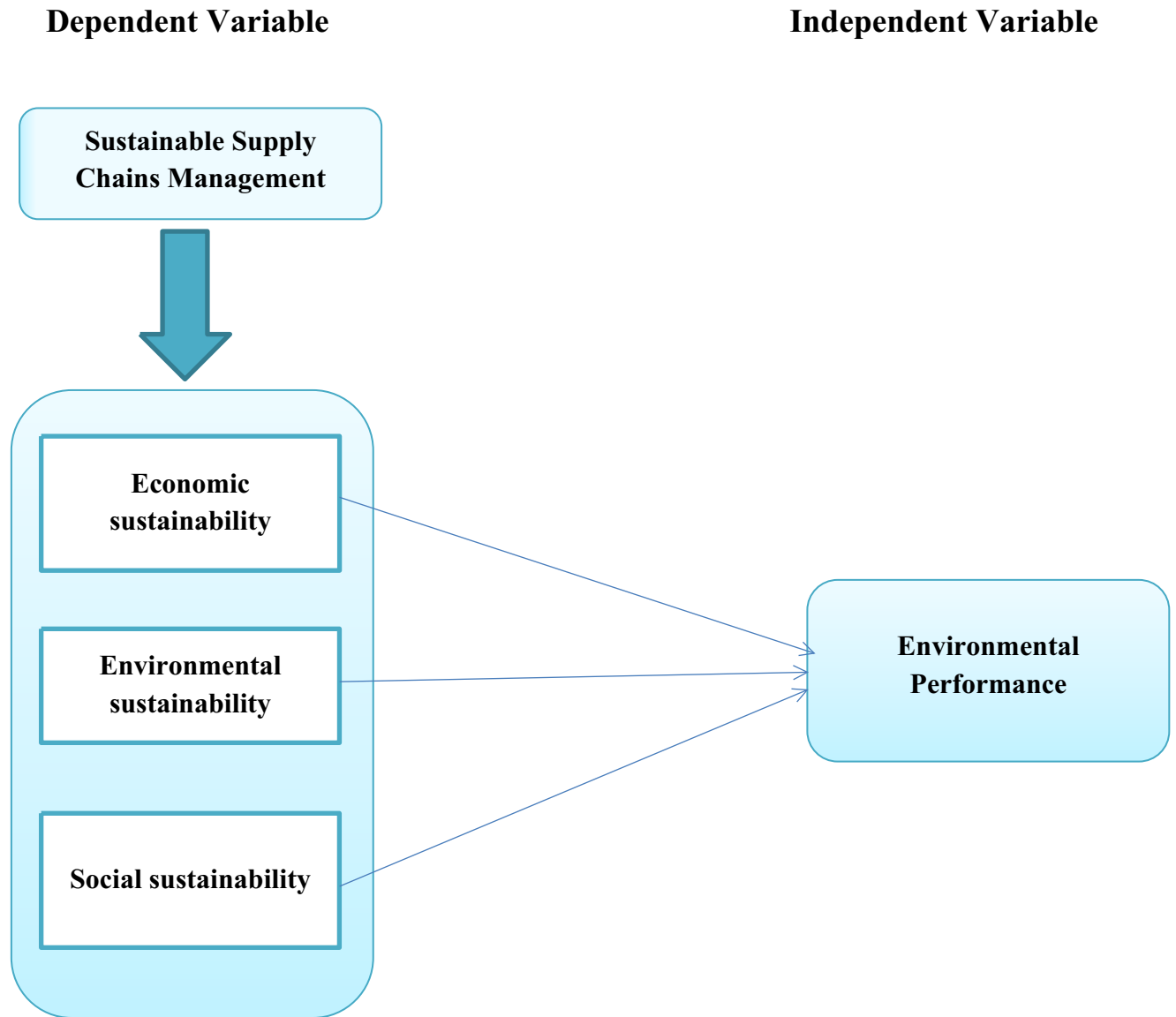


Figure 1: Research Model.

Research Methodology:

The study's perspective is based on retail fuel stations in the Kingdom of Saudi Arabia that have adopted sustainable supply chain management. A total of 200 managers at retail gas stations in Saudi Arabia will give questionnaire surveys to complete. The managers were categorized by job

title and job responsibilities as purchasing, distribution/logistics, SCM, transportation, material, and operations.

On a 5-point Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree), the respondents were asked to rate the degree to which environmentally friendly supply chain management techniques correlate with environmental performance. The reliability of each scale was assessed using the Cronbach's alpha. When an alpha value is greater than 0.7, all scales are regarded as credible.

Fuel stations:

The oil industry is huge and important in today's world. In addition to being a significant source of energy, petroleum products and their byproducts are used as feedstock for a variety of consumer goods in the petrochemical, textile, pharmaceutical, and fertilizer industries. If not managed properly, the greater oil business might lead to major environmental dangers and have a detrimental effect on the land, water, and air in addition to all living things. The retail fuel service station industry and business rely on the environment for functionality, resources, and ultimately trash disposal. As a result, they play a crucial part in assisting global efforts to achieve sustainable development (Kany, 2014).

A factory that sells fuel and lubricants for cars is known as a retail fuel station. Gasoline, liquefied natural gas (LNG), diesel, kerosene, and motor oil are all sold at retail gasoline stations. Effective oil supply is essential to the operation of modern society. Consequently, as a result of urbanization, retail gas stations are present in many nations. As a result, the constant vapor emissions have a negative impact on the health of the local population. Products, particularly gasoline, that are sold at retail fuel stations contain volatile organic compounds like benzene, which can catch fire and release vapour even at low temperatures. According to certain empirical research, breathing in benzene when exposed to the environment can result in lung cancer, leukemia in the brain and stomach, irritation of mucous membranes, dermatitis, bone marrow depletion, and heart attacks (Mac-Kingsley & Pokubo, 2018).

The supply chain for gas and oil includes the retail gasoline stations. There are three sectors in the oil and gas supply chain: upstream, midstream, and downstream (Briggs et al., 2012). Selling goods that release emissions during usage or storage is under the purview of the downstream

industry. According to Lenzon and Murray (2010), the downstream industry is brought to life and sustained by sales, which come with emissions that would have been revealed in a different way. Thus, incidents of environmental deterioration that are typical of product delivery and dispensing do not exclude the retail fuel station. Sustainable supply chain management will therefore be essential to the sector. On the other hand, little is known about the industry's sustainable supply chain management strategies and how they improve environmental performance. Suspicion that the retail gas stations lack well-established sustainable supply chain management techniques that produce favorable environmental performance could not be entirely out of place.

Timeline Table:

Assignment	Weeks											
	1	2	3	4	5	6	7	8	9	10	11	12
#1												
#2												
#3												
#4												