

Supply Chain Performance of Manufacturing firms in Ethiopia

Enormous effort has been made in Ethiopia to create a conducive manufacturing environment for the manufacturing businesses in the past two decades. The government has invested on different infrastructures (energy, railway, roads and industrial parks) that directly or indirectly affect the manufacturing firms. For instance, the government has invested \$12 billion to generate cheap and reliable electric energy. As a result, electric tariff currently for manufacturing firms is \$0.05 per Kilo Watt Hour (KWH). This tariff is relatively low compared to low energy tariff countries such as India (\$0.10 per KWH), Pakistan (\$0.08 per KWH) and Turkey (\$0.10 KWH). Electrified rail ways - the first in the Sub-Saharan countries - has been constructed to facilitate logistics. Moreover, the country has huge resources and potential that can be used as input for manufacturing firms. However, the Performance of the sector is low. The manufacturing firms perform on average at 57% of design capacity and the local competitiveness is below 50%. Manufacturing firms have limitation to achieve quality standards; are unable to meet delivery deadlines; are incapable of complying with environmental standards (waste management), and fail to abide by local work standards (Ergonomics and safety). Thus, the purpose of this study is to analyze the supply chain performance of manufacturing firms to tackle these problems and allow the manufacturing firms to perform competitively.

Therefore, the main research question is: how to make supply chains of manufacturing firms in Ethiopia more efficient and effective? To analyze the supply chain performance of manufacturing firms in developing countries, this research will apply Supply Chain Operation Reference (SCOR) Model. SCOR is selected because of the following benefits. Primarily, the SCOR processes source, make, deliver and return help to map the complete supply chain activities of a manufacturing firm wherever it operates. This enables us to systematically explain how each process is practiced in the real-world scenario, the Ethiopian Manufacturing industries. Secondly, the SCOR performance standards: cost, quality, delivery, and flexibility, assist us to measure both quali-

tatively and quantitatively the supply chain performance at strategic, operational and tactical levels. A number of research methods including descriptive/literature search, observation, interview, questionnaire, and Focus Group Discussion (FGD) will be employed. The research study can be handled in the following steps:

- The existing supply chain of the manufacturing firms in Ethiopia is mapped in accordance with SCOR processes.
- Dimension of practices of SCM is identified and compared against theoretical dimensions to construct the performance indicators .
- Performance measurement on key performance indicators such as product flexibility, delivery time, capacity utilization, visibility and integrity will take place quantitatively and qualitatively using reliable and updated data, which reveals the current status of firms and helps to foresee their prospects. Historical data, which helps to measure the trend, is not the interest of this research. The proposed research adds body of knowledge by revealing the relationship between supply chain practices and supply chain performance in the context of developing countries operating within different manufacturing environments through an empirical investigation. This will supplement the supply chain performance literature.

This research will be applicable directly to the manufacturing firms in order to optimize the critical factors such as cost, quality, flexibility and delivery of products. These factors prove very important in order to satisfy the customers' ever-increasing interest. They also help to withstand the ever-higher competition. The research benefits the suppliers of raw materials, distributors and retailers of products. This research can also benefit governmental offices as an input to improve the manufacturing environment. Different stakeholders and business consultants can utilize for their specific purposes. Lastly, academic institutes can use it for their purposes, as well.



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