# The Effects of Supply Chain Integration On Public Hospital Efficiency: The role of Organizational Learning

Esther Sienma Nandara

PhD Candidate

Department of Management Science, GIMPA Business School, GIMPA, Accra

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# Background

- Hospitals in Sub-Saharan Africa are resource constrained(Babalola & Moodley, 2020; Chang et al., 2019).
- For instance, in Ghana, public hospitals have been experiencing some funding challenges over the years.
- Improving hospital efficiency to increase access to quality healthcare services has become a necessity(Babalola & Moodley, 2020;Hafidz et al.,2018).
- Because logistics and supply costs represents a significant percentage of total hospital expenditure, effectively managing the SC can improve efficiency(Ziat et al.2020) .
- Literature indicates that one of the practices of SCM that can improve organizational efficiency is supply chain integration(SCI)( Danese et al.,2020;Li et al.,2022).
- The nature and effectiveness of SCI is however influenced by organizational and environmental characteristics ( Danese et al.,2020).

# Problem Statement

- The SCI-Performance relationship has been extensively studied and the consensus is that different dimensions of SCI exert different and varying levels of impact on dimensions of performance ( Danese et al.,2020; Li et al.,2022).

- However, inconsistencies in results appears to suggest that a complete picture regarding the underlying mechanism of how SCI impacts performance is not clear.

- So far, some researchers have used certain individual dimensions of SCI to investigate the mechanism of how other dimensions impact performance (Errassafi et al.,2019; Huo et al.,2012)

- Another group of researchers have employed additional variables , information quality, human capital(Chavez et al., 2015; Huo et al.,2015).

# Problem Statement

- Potential variables like organizational learning(OL) have received little attention.
- SCI promotes OL and OL on its own impact performance positively(Feng et al.,2022; (Inthavong et al., 2023).
- Additionally, manufacturing supply chains in developed countries have been the focus of studies .
- The unique characteristics of hospitals and health systems in Africa may play crucial roles in shaping the nature and effectiveness of SCI.
- Generalizing the results to the context of hospital supply chains in Africa may not be valid( Asamoah et al.,2021).
- Additionally, the unique characteristics of hospitals, health systems and the nature of their supply chains in Africa are not sufficiently studied and mainstreamed in the SCI debate, particularly how they influence efficiency.

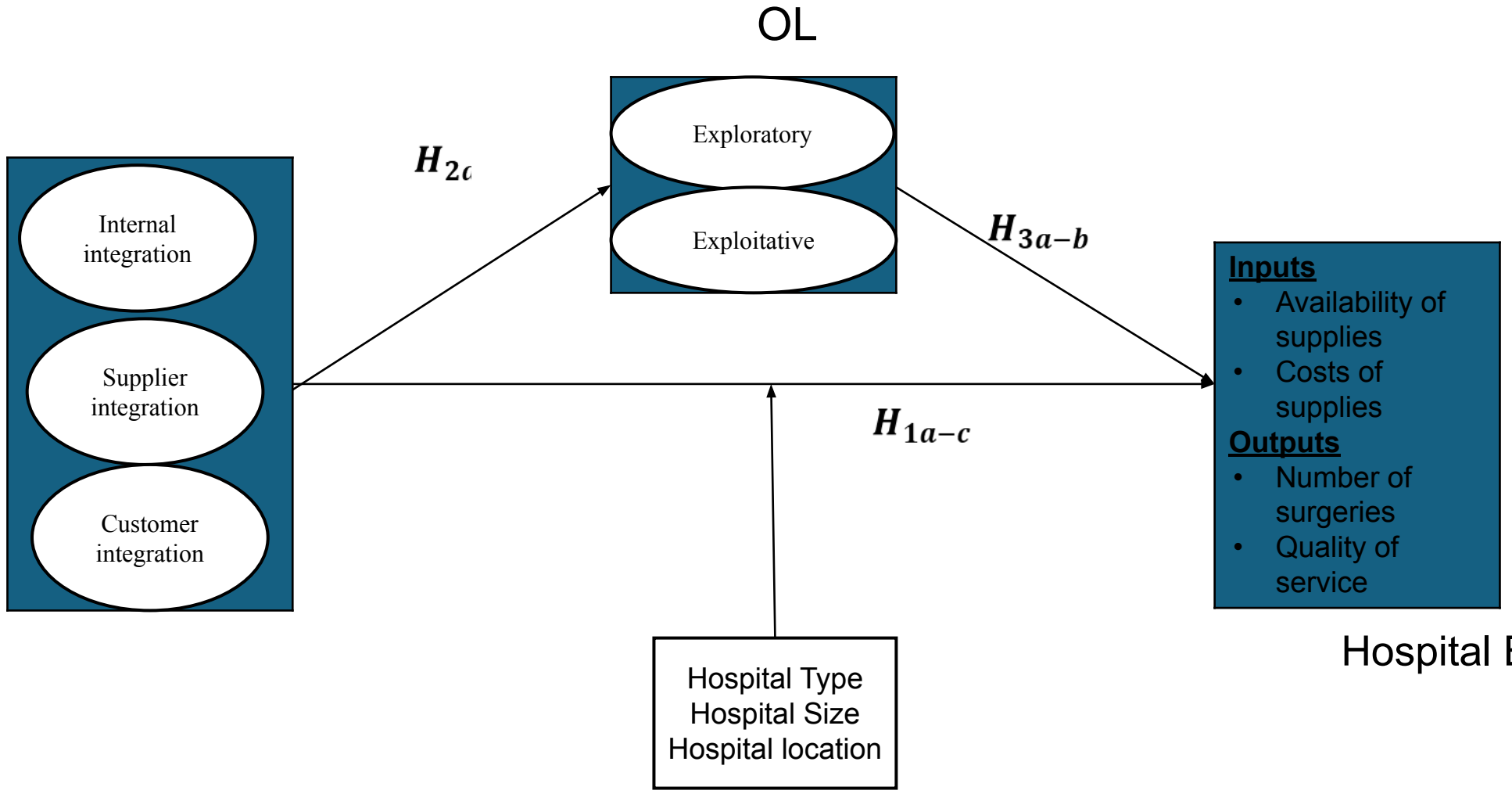
**AIM**: To ascertain if SCI has a positive impact on hospital efficiency directly, and further if the impact is explained by organizational learning.

| Research Questions | Research objectives |
|---|---|
| Q1. What is the nature of supply chain integration of public hospitals in Ghana?<br>Q2. Does supply chain integration influence public hospital efficiency?<br>Q3. Is the relationship between supply chain integration and hospital efficiency explained by organizational learning? | 1. To explore the nature of the supply chain integration of public hospitals in Ghana<br>2. To determine the effects of supply chain integration on the efficiency of public hospitals.<br>3. To examine the influence of organizational learning on the relationship between supply chain integration and hospital efficiency. |

- Scope of Study: Supply planning of medical products used in the OP

  Facilities that provide tertiary and secondary services

# Conceptual Framework




SCI

Hospital Efficiency

control variables

**THEORY**

**DYNAMIC CAPABILITY**

# Methodology

| Stage | Choice |
|---|---|
| Research Philosophy | Pragmatism |
| Research Approach | Deductive and Inductive |
| Research Strategy | Survey |
| Research Choice | Mixed Method(concurrent mixed method with quantitative component given dominant position) |
| Research Time-Horizon | Cross-sectional |
| Research Data collections and analysis | ❖ Questionnaire survey, semi-structured interview and document analysis<br>❖ Content analysis(NVivo 14 software)<br>❖ PLS-SEM(Smart PLS 4.0 software ) |

# Sample Design

- Population: All public Teaching, Regional, Districts and Quasi-government hospitals of regional or district level status in Ghana.( 144 as at 2021)

- Sampling frame :List of regional hospitals, teaching hospitals and quasi-government institutions that provide secondary and tertiary level services.

- Sample size for survey: Based on sample size determination table by Krejcie and Morgan(1970), 144 population will require a sample size of 108 .
- Sample size for the semi-structured interview is 20-30( this is enough to achieve saturation) (Marshall et al., 2013).
- Sampling technique : Stratified sampling for survey( procurement officers or pharmacists)

Purposive for interview( key SC decision makers &

# Contribution of Study

## Contributions to theory

- Provide insight on the direct relationship between the individual dimensions of SCI and hospital efficiency from the perspective of hospitals in a developing African country environment.

- Provide insight on the influence of organizational learning on the SCI-Efficiency relationship in hospitals.

## Contributions to practice

- The findings of this study is expected to support public hospitals improve their efficiency by providing them with data and information that will empower them in making appropriate SCI investment decisions.

- Contribute to the efforts of MOH towards the achievement of Universal Health Coverage by providing recommendations on how integration could be used to optimize resource utilization and improve access to high quality and affordable healthcare services.

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