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The Role of Port Community Systems in Streamlining Export Processes for Sri Lankan SMEs

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Declaration

I declare that this is my own work and this thesis/dissertation does not incorporate without acknowledgement any material previously submitted for a degree or Diploma in any other University or institute of higher learning and to the best of my knowledge and belief it does not contain any material previously published or written by another person except where the acknowledgement is made in the text.

Signature:

Date: 19th May 2025

The above candidate has carried out research for the Masters Dissertation under my supervision.

Name of the supervisor: Dr. L.C.I. Sigera

Signature of the supervisor: `

Date:19th May 2025

ABSTRACT

Strategically located in the hub of international trade, Sri Lanka is one of the biggest players on the international arena. Despite this, the inefficiencies of the country's export processes, especially among small and medium-sized enterprises (SMEs), remain insurmountable obstacles to the country's competitiveness in the world market. By streamlining export processes in a simple and easy manner, Sri Lankan SMEs can be empowered through Port Community Systems (PCS) to overcome these problems. Data were collected from 47 export-oriented SMEs employing a structured Likert scale questionnaire based on a positivist philosophy and deducting from a quantitative and positivist philosophy of data analysis using SPSS. Three critical dimensions have been focused on, namely, system usability, information transparency and collaboration with port authorities. The findings show that the adoption of PCS effectively increases export efficiency by reducing the procedural delays, enhancing data transparency and better coordinating the stakeholders. In the case of resource constrained SMEs usability becomes a key factor, and the user-friendly interface of PCS draws a higher adoption rate. Through PCS, information transparency is made possible for real time data sharing, this will reduce errors and would lead to faster decision making. Further, port authorities are better integrated into the export environment within PCS to minimize bureaucracy and promote collaboration. The potential adoption of PCS in Sri Lanka is low as to infrastructural deficits, low awareness, and resistance to change. The study then makes a recommendation for adoption of PCS by recommending strategic measures such as government incentives, awareness campaign, capacity building programmes and public private partnership. PCs utilization can be further strengthened for efficiency and additional global competitiveness of Sri Lankan SMEs, leading to a path forger to a sustainable export growth. In particular, this research provides useful insights into the modernization of Sri Lanka's export sector through digital innovation for the benefit of policymakers, port authorities, and SME stakeholders.

Key Words - Port Community Systems (PCS) ,Export Efficiency, Small and Medium-sized Enterprises (SMEs) ,System Usability, Information Transparency

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List of Abbreviations

| Abbreviation | Full Form |
|---------------------|---|
| SME | Small and Medium-sized Enterprise |
| PCS | Port Community System |
| GDP | Gross Domestic Product |
| ESCAP | Economic and Social Commission for Asia and the Pacific |
| SPSS | Statistical Package for the Social Sciences |
| IoT | Internet of Things |
| PPP | Public-Private Partnership |
| UNCTAD | United Nations Conference on Trade and Development |
| NSW | National Single Window |
| ICT | Information and Communication Technology |