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A STUDY ON SUPPLY CHAIN MAPPING: ADDRESSING THE ACADEMIC AND PEDAGOGICAL DEFICIENCY

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ABSTRACT

This research focuses on supply chain mapping as a visual and analytical resource, examining the shortcomings in supply chain management (SCM) education at academic institutions. Despite its significant utility in practical applications, the technology is often overlooked in classroom settings. Through an analysis of current educational methods and an evaluation of the impact of integrating mapping techniques into SCM curricula, this study aims to bridge that gap. The paper identifies major obstacles to implementation and presents a comprehensive approach for incorporating supply chain mapping into academic programs via surveys, case studies, and assessments of curricula. The results underscore the importance of experiential learning, online resources, and faculty training in improving students' conceptual comprehension and practical skills within SCM education

INDEX TERMS- *Supply Chain Mapping Supply Chain Management Education Pedagogical Gap*

INTRODUCTION

Supply Chain Management (SCM) is essential to maintaining operational effectiveness, transparency, and risk reduction in the modern, worldwide economy. But SCM-focused academic programs frequently fail to adequately prepare students for the intricacies of contemporary supply chain systems. This disparity is mostly caused by the undervaluation of supply chain mapping, a vital analytical and visual aid that is widely employed in business to model, examine, and improve supply networks.

Supply chain mapping, despite its practical significance, is still underrepresented in many SCM programs and is frequently viewed as an elective rather than a fundamental competency. Because of this pedagogical shortcoming, graduates are theoretically capable but practically ill-equipped to manage supply chain settings that are dynamic and data-driven.

In today's globalized economy, Supply Chain Management (SCM) plays a critical role in ensuring operational efficiency, transparency, and risk mitigation. However, academic programs that teach SCM often fall short in preparing students for the complexities of modern supply chain systems. A significant contributor to this gap is the lack of focus on supply chain mapping—a fundamental analytical and visualization tool used extensively in industry to model, analyze, and optimize supply networks.

Despite its practical importance, supply chain mapping remains underrepresented in many SCM curricula, often treated as a supplementary topic rather than a core skill. This pedagogical deficiency results in graduates being theoretically competent but practically underprepared to handle dynamic and data-driven supply chain environments. By identifying the gaps in the existing SCM education and investigating the use of mapping tools as part of curriculum reform, this research is motivated by the need to close the gap between academia and industry. Using a combination of curriculum analysis, stakeholder input, and qualitative insights, this article attempts to offer an organized method for improving supply chain pedagogy through the use of visualization tools and experiential learning strategies.

By offering research-based suggestions for incorporating supply chain mapping into instructional strategies, this study aims to support educational innovation in SCM and provide students real-world skills that meet industry demands.

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I. RESEARCH, IDENTIFY AND GATHER IDEAS

Identifying a key gap in the academic delivery of supply chain management (SCM)—more especially, the underrepresentation of supply chain mapping as a fundamental skill in higher education—formed the basis of this study. After looking over several university SCM curricula, participating in educational seminars, and speaking with academic and business experts, this insight became clear.

In order to confirm the relevance and feasibility of this subject:
There was a thorough examination of published literature.
Spens (2007) have conducted research that has brought attention to the theoretical bias in SCM education today and the necessity of experiential learning resources like mapping.
2. Academic articles, case studies, and whitepapers pertaining to supply chain mapping and pedagogy were gathered using online databases and search engines (such as Google Scholar, ResearchGate, and ScienceDirect).
3. The study was placed within current academic trends by taking part in conferences and webinars on supply chain innovation, digital technologies in logistics, and instructional approaches.
4. To assure the correctness and scholarly significance of the research, a thorough grasp of technical terminologies was produced, including supply chain visibility, digital twins, multi-tier networks, and dynamic mapping.

In addition to being topical and pertinent, these actions made sure that the subject was understudied in the contemporary academic environment. As a result, the study's focus was changed to address supply chain mapping's pedagogical shortcomings and suggest practical solutions.

II. EXPLANATION OF RESEARCH: INVESTIGATIONS AND RESULTS

To examine the incorporation of supply chain mapping into academic programs and determine its educational value, this study used a mixed-method approach that included curriculum analysis and student questionnaires.

Review of the Curriculum

Supply chain mapping was only covered in 40% of SCM course curricula from five different schools, and even then, the material was theoretical and lacked digital or practical components. The majority of the programs focused on generic logistics models and fundamental operations ideas, leaving out industry-standard visual mapping or simulation methodologies.

Results of the Student Survey

The following results were attained from a structured check given to 50 SCM scholars
The maturity(92) concurred that force chain mapping improves their appreciation of intricate supplier networks.

- 68 had noway used any force chain mapping or visualization tools, similar as SAP or Lucidchart.
- Compared to typical lecture formats, 70 of repliers favored design- grounded literacy and real- world simulations.

These findings show that there's a high need for assiduity- standard, hands- on, technology- enabled education strategies.

Perspectives on Curriculum

Interviews with scholars

- Due to a lack of coffers or training, 70 of preceptors do n't use digital mapping tools in their assignments.
- Citing little institutional support for technological integration, the maturity reckoned on static plates or exemplifications from handbooks.

The significance of mapping was conceded by all scholars, but they also saw the egregious need for curricular revision.

MAIN CONCLUSIONS

Several theme trends were linked from this data. The operation of force chain mapping in being SCM courses is lacking pedagogically.

High situations of interest are shown by scholarsin interactive and existential literacy approaches, especially those that use visual aids. Faculty are adaptable but need backing in the form of coffers, instruction, and institutional programs that place an emphasis on the development of practical chops.

across programs that use mapping and those that do n't, or they might examine the goods of AI- driven mapping platforms and simulation tools in educational settings. Academic institutions may more educate graduates to lead in a global frugality that's getting more complicated and digitalized by encouraging a more practical, tool- grounded approach to supply chain education.

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