

The nexus of information sharing, technology capability and inventory efficiency

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Abstract

Purpose – This paper aims to examine the effect of inventory information sharing on inventory efficiency and its intervening effect of information technology (IT) capability in manufacturing firms.

Design/methodology/approach – Stratified random sampling and filter questions selected targeted respondents, and an online survey collected 124 completed questionnaires from Malaysian manufacturing firms. partial least squares structural equation modeling (PLS-SEM) examined the structural model and hypothesis statement. An analysis of importance-performance map analysis (IPMA) test identified the relative importance drivers of inventory efficiency.

Findings – The findings showed that enhanced IT capabilities in manufacturing firms mediate a positive relationship between inventory sharing and inventory efficiency.

Research limitations/implications – This study portrays the relationship between inventory level, demand and information sharing. The research was carried out only within Malaysian manufacturing firms.

Practical implications – These findings will enable the management of manufacturing firms to design and visualise their inventory levels and share best practices across supply chain networks to achieve effective and optimised inventory planning.

Social implications – This study illustrates an intervention model that offers a direct and indirect impact of IT capabilities that allow scholars to close inventories productivity gaps in research.

Originality/value – This paper extends the limited literature on the sharing of inventory information and inventory productivity, notably from a strategic management perspective. The findings help scholars clearly understand the information systems capability and its mediating impact on information sharing and inventory efficiency's relationship in the manufacturing sector. Moreover, demand information sharing affected the dynamic supply chain.

Keywords Inventory technology capability, Inventory efficiency, Supply chain integration, IR4.0, PLS-SEM, Quantitative, Information sharing, Emerging markets, Inventory management

Paper type Research paper



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