

The Effect of Information Technology Implementation on Supply Chain Performance through Information Sharing and Supply Chain Collaboration

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Abstract

The Covid-19 pandemic has resulted in a slowdown in the world economy, including Indonesia. The implementation of industry 4.0 is considered the right strategy to revitalize the manufacturing sector. This study aims to determine and understand the effect of information technology implementation on supply chain performance through information sharing and supply chain collaboration.

This study uses a quantitative approach to measure an independent variable effect on mediation and dependent variables to test the predetermined hypotheses. The data was collected using a non-probability sampling technique with a convenience sampling method through questionnaire instrument with the total number of respondents were 70 manufacturers in Surabaya. Then, the data were analyzed using Partial Least Square software and Structural Equation Modeling based on components or variants. The results indicate that the relationship between supply chain collaboration creates competitive advantages by sharing information. Consequently, the existence of precise, accurate, and qualified information can facilitate joint decision-making. Furthermore, the increasing adoption of supply chain collaboration with information technology can improve company performance.

In conclusion, the manufacturers' supply chain performance where respondents work still survive the Covid-19 pandemic because of IT implementation, in which, also improve the information sharing for decision making and collaboration in the supply chain. This study provides an insight for managers on ways to improve the supply chain performance. This study could also contribute to the current research in supply chain management theory.

Keywords: Causal Research, Information Technology Implementation, Supply Chain Performance, Information Sharing, Supply Chain Collaboration.