

**INTEGRATED SUPPLY CHAIN (UPSTREAM-DOWNSTREAM)
AT A GERMAN CAR MANUFACTURER**

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STATEMENT BY THE AUTHOR

I hereby declare that this submission is my own work and to the best of my knowledge, it contains no material previously published or written by another person, nor material which to a substantial extent has been accepted for the award of any other degree or diploma at any educational institution, except where due acknowledgement is made in the thesis.

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ABSTRACT

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This thesis was conducted at a German car manufacturer who locally assembles its flagship vehicles of their passenger cars at its 42-hectare plant in Bogor, Indonesia. In this globalisation era, an integrated supply chain management is one of the indispensable aspects for reaching the company's vision. Thus, an integrated supply chain scheme has been devised by the author to diminish the supply chain issues at the company, such as the bullwhip effect (distorted information flowing up and down the supply chain), overstock, not optimal warehouse and unnecessary logistics costs. This research was carried out by using the methods of forecasting and safety stock. One of the findings is the author's forecasted demand with the exponential smoothing and trend formula has a better accuracy than the company's forecast. In conclusion, the company will expectedly be able to integrate their supply chain management for generating a better performance in raw material warehouse, production line and finished goods warehouse with a lower cost by implementing the integrated scheme in this research.

Keywords: Supply Chain, Logistics, Bullwhip Effect, Overstock, Forecasting, Safety Stock.



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DEDICATION

This thesis is dedicated to my heavenly Father, Jesus Christ who has been providing me with all of my necessities. Moreover, to my family and colleagues for their time and encouragement.



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