

**THE IMPACT OF INCREASING CUSTOMER SERVICE LEVEL
MEASURED BY OTIF (ON TIME IN FULL) THROUGH NEW SUPPORT
POINTS FROM AN EFFECTIVE PARTS SUPPLY CHAIN DISTRIBUTION
DESIGN ON SPARE PARTS SALES AT PT XYZ MEDAN BRANCH**

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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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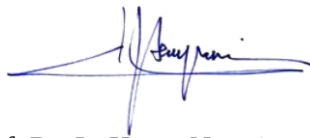
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ABSTRACT

THE IMPACT OF INCREASING CUSTOMER SERVICE LEVEL MEASURED BY OTIF (ON TIME IN FULL) THROUGH NEW SUPPORT POINTS FROM AN EFFECTIVE PARTS SUPPLY CHAIN DISTRIBUTION DESIGN ON SPARE PARTS SALES AT PT XYZ MEDAN BRANCH

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This study aims to boost sales at PT XYZ, especially at the Martabe Site. A problem was found with the customer service level measured by OTIF (On-Time In-Full) rates because there are no support points at the Martabe Site. So, this situation risks delaying delivery due to the long distance (367 km or 12 hours by land transportation) between Medan and Martabe. Low OTIF rates align with the low availability of parts at PT XYZ. Availability of parts is the ability to supply demand with PT XYZ's stock. So, customers buy from other competitors, which is ready on site. This study designs new support points based on accurate demand forecasting and feasibility assessments of this investment based on the Internal Rate of Return (IRR) index. As a result, new support points guaranteed the availability of parts to make the item In-Full and decrease lead time delivery to make the item On-Time. Thus, this improvement enhances the customer service level measured by OTIF rates to minimize lost deals and get repeated orders. After building a new support point at the Martabe site, sales increased by 74% and contributed to the growth of sales in the Medan area by 44%.

Keywords: Sales, Customer Service Level, On-Time In-Full (OTIF) Rates, Availability Parts, Lead Time Delivery, New Support Points, Demand Forecasting, Internal Rate of Return, Feasibility

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DEDICATION

I dedicate this works to my family, my advisors, my fellow students, my lecturers, and
my company.

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All praise to the Lord Jesus Christ for His amazing blessings and grace to me.

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God Bless Us...

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