Thesis topic: ISO 9001:2015 IMPACT: COMPARATIVE KPI ANALYSIS OF CERTIFIED FRACTORY SOLUTIONS OÜ VS. NON-CERTIFIED PALMET OÜ

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## SUMMARY

The purpose of this thesis was to conduct a comparative analysis between an ISO 9001:2015 certified Estonian metal industry company (Fractory Solutions OÜ) and a non-certified company (Palmet OÜ). This study aimed to analyse and compare the operational performance and quality management practices of each company based on selected Key Performance Indicators (KPIs) and relevant data. The main research question determined whether Palmet OÜ's small-scale operation needs the structured approach of ISO 9001:2015 by comparing it with its certified counterpart. The study also pinpointed areas for future improvement for both Palmet OÜ and Fractory Solutions OÜ.

The structure of the study included a literature review of ISO 9001:2015 requirements and its key principles. For the comparative study, Key Performance Indicators (KPIs) Non-conformance, On-Time Delivery and Productivity for manufacturing companies were determined and selected according to the selection matrix.

The study involved a Mixed-Methods research approach, integrating both qualitative interviews and quantitative data analysis. Data were collected from internal company records, direct interviews with company employees, and operational data systems. Key performance metrics were analysed using statistical tools to assess the performance differences between the two companies. Comparative discussion for each KPI was conducted and results of the findings were concluded.

The findings highlighted the significance of a structured quality management system in improving operational efficiency and customer satisfaction. The study suggested that non-certified Palmet OÜ needs to adopt ISO 9001:2015 structured quality management approach in order to expand its business before production volumes exceed current maximum capacity. This adoption will enhance their operational performance, enabling sustainable growth and maintaining customer satisfaction. Larger-scale operations like Fractory Solutions OÜ will benefit from a process approach and available data for tracking, allowing them to make informed decisions by finding the root causes of the issues revealed in the study.