SSTC

Sodick Singapore Techno Centre

Project Sustainability Report

Ernix Network Integration Pte Ltd

How RPA Provides Sustainability to Sodick Singapore Techno Centre

Executive Summary

This report highlights how Ernix Network Integration Pte Ltd (ENIPL) combines Robotic Process Automation (RPA) with customized software to achieve significant operational, environmental, and social benefits to the SME client Sodick Singapore Techno Centre (SSTC). By automating manual and repetitive tasks, RPA can streamline processes, heighten job satisfaction, minimize energy consumption, and save costs, contributing to a more sustainable future for both business and planet.

About SSTC

SSTC is wholly owned by Sodick Singapore Pte Ltd, a Japanese precision EDM machine manufacturer, and headquartered in Yokohama, Japan. The objective of SSTC is to introduce Smart Industry Transformation solution and Additive Manufacturing (3D Printing) to the precision engineering companies in Singapore and regional countries, driving greater interests to the regional manufacturing sector to adopt industry 4.0 transformation.

Introduction

Sustainability is now an imperative element for businesses in the 21st century. Investors, stakeholders, and consumers are increasingly looking out for sustainable practices from businesses, whether they be economically, environmentally, or socially. RPA with customized software meets all conditions.

Challenges faced by SSTC

SSTC has tens of thousands of parts in the store and many a time when engineers need to loan a single or several parts out for training or demonstration purposes, they would take a snapshot of the part and its corresponding part number and send via Whatsapp to the storekeeper, who would then log the entry into the ERP system. This can happen several times a day, creating additional workload for the storekeeper.
In addition, to create a new part number into the ERP system, the storekeeper has to enter values into the numerous fields.

Remedy

To alleviate the manual and repetitive workload, ENIPL designed an app and incorporated RPA into it. The engineer searches for the part on the app, clicks submit, and proceeds with the loan, while RPA updates the entry into ERP system automatically, all without the interference from the storekeeper.

For creation of a new part number, the values will be submitted using the app, with the RPA auto-filling the ERP system and generating a QR code, which can only be scanned by the app and then displaying the details. This negates the need to log in to the ERP system unnecessarily.
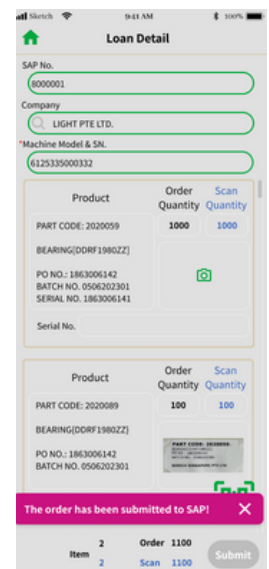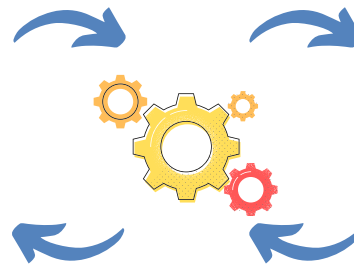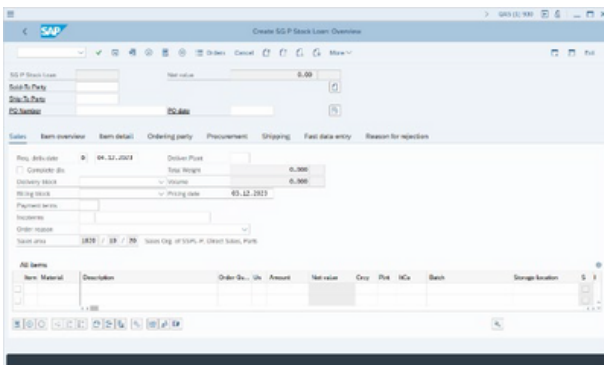
Economic Benefits

No system write-off: successful integration of RPA and app with current ERP system means no additional huge upfront cost to purchase new ERP system.

Operational Benefits

Increased efficiency and productivity: Automating repetitive tasks lightens workload and frees up time for the employee.

Improved accuracy: Most entries are automated, minimizing the entry errors by humans.

Reduced costs: Labor costs are reduced because inventory discrepancy is quickly identified, making the laborious stock-taking process faster and easier.

Scalability: Other departments are also open to the possibility of RPA and customized app setup.

Environmental Benefits

Low energy consumption: A small form factor rated ~25W and a re-purposed laptop rated ~20W were deployed (total 394.20 kWh/year [#12], powered on 24/7), contributing to energy sustainability.

Low Scope 2 (client) indirect carbon emissions ∗+ : 164.30 kg CO2e/year, powered on 24/7.

[#1] *25W/20W is peak utilization. Actual utilization is likely to be much lower than 25W/20W and not powered on 24/7.*

[#2] *Office aircon rated 3,000kWh powered on for 8hours Mon-Fri 260 days per year utilizes 6,240kWh/year.*

∗*Based on EMA 2022 Grid Emission Factor (GEF) of 0.4168 kg CO2/kWh.*

+*Office aircon rated 3,000kWh powered on for 8hours Mon-Fri 260 days per year emits 2,600.83 kg CO2e.*

Social Benefits

Job satisfaction: Employee feels a higher level of job satisfaction.

Lower staff turnover: Learning curve is almost nil, employee does not feel overwhelmed.

Higher social status: Employee can now be assigned with more important tasks which may include attending courses, leading to higher wages and social status, and contributing to social sustainability.

Conclusion

Many SMEs are increasingly adopting sustainable practices as required by their clients or large suppliers. SSTC has responded by deploying a customized app combined with RPA, and that not only improves their efficiency and productivity, but also paves the way towards sustainability. Reducing power consumption while increasing economic, operational, environmental, and social benefits aligns ENIPL's mission statement of "Empowering businesses sustainably with customized software and development".

As of July 2024, subsidiary offices in Malaysian states Kuala Lumpur, Johor Bahru, and Penang have implemented the same RPA setup as well.