

數位轉型策略探討

- 以 POS 機產業為例

鄒濟民

輔仁大學資管系兼任助理教授

E-mail: jtsou082352@gmail.com

摘要

本研究針對 POS 機產業的案例公司探討該公司數位轉型的可行方案，調查顯示預防維護服務能減少客戶因機器故障所造成的損失。為了提供預防維護服務，公司需提升數據分析能力，並在組織上增加數據分析部門，培養數據分析人才，此為數位轉型的策略手段。有關預防維護的預測模型，本研究提出以出貨前的燒機數據建立基礎模型；然後蒐集出貨後的據點運作相關數據包括溫度、電流、頻率、當地室溫、濕度等大數據以及 RMA 的回報檢測維修資料，並結合深度學習來修正基礎模型，以提升預測模型的準確率。

關鍵詞：數位轉型、預測分析、預防維護

On the Strategy of Digital Transformation

– Taking POS Device Industry for Example

Tsou, Chi-Ming

Department of Information Management, Fu-Jen Catholic University, Part-time Assistant Professor

Abstract

This study takes the POS device industry as an example to explore the available approaches for digital transformation strategy. The survey results demonstrate the preventive maintenance services can reduce the loss of customers during device down time. In order to furnish the preventive maintenance services to customers, company should promote its data analytic capability and establish a data analytic department to train up data analysis expertise to fulfill the digital transformation initiatives. In terms of establishing the preventive maintenance predictive model, this study recommends a two-stages methodology including using before ex-factory burn-in data and adopting time series model to build up the basic model and then collecting site operation data including device temperature, device currency, local room temperature, local humidity and device maintenance RMA data etc. with deep learning method to increase the precision rate of the model.

Keyword: Digital Transformation, Predictive Analytics, Preventive Maintenance