A SMART PURCHASE-ORDER MATERIALS HANDLING SYSTEM FOR APPAREL ORGANIZATIONS

Sanja Perera

Infromatics Institute of Technology (IIT), Sri Lanka

sanja.perera@hotmail.com

The Apparel Industry is one of the major manufacturing industries in Sri Lanka and plays a significant role in the nation's economy. The performance and growth in this industry has significantly arose due to many technical advancements in IT and non-IT fields. Hence, many apparel organizations have incorporated efficient processes to uphold their business. However, excess material wastage during allocation of raw materials in the process of manufacturing is a notably identified issue faced by many apparel organizations, due to changes in order quantities and quality measures. In order to carry out investigations related to this matter, one of pioneers in this industry playing a leading role in manufacturing and exporting of many branded apparel and textile was chosen. MAS Bodyline (Pvt.) Ltd is a production factory under MAS Holdings, and also facing the above mentioned major problem during material planning for purchase-orders according to the Director of Marketing, 2017 at MAS Bodyline. Along with the inability to solve this problem, several corresponding sub issues have also aroused resulting failures of orders. However, even with the company's SAP system going through upgrades and changes in processes for Just-in-time (JIT) methodology, the issue has not been able to solve yet. Therefore, along with the most appropriate approaches and methodologies, this research outlines the factors and findings affecting incorrect consumption measures and investigates its impact on planning to reach correct consumption measures. In order to reach this correct measure, this project proposes a Business Solution Process Model and an IT system 'Smart Purchase-Order Materials Planning System' with the most appropriate tools and technologies, which will eradicate all issues relating to incorrect consumption measures. Therefore, this system will not only solve the main problem of the organization but also will allow many other benefits reaching to increase profits and gain further recognition in the industry by producing quality and in-time products.

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