

Production Planning and control systems for competitiveness of Basic Metal and Steel industries

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Abstract

This research is designed with an objective of studying how production planning and control systems could enhance competitiveness of steel production industries and build an integrated road map for production planning and control strategy under conditions of raw material and logistics as a bottleneck. In this particular research, two null hypotheses Ho1: There is no significant correlation between PPC and competitiveness and Ho2: There is no significant correlation between PPC and raw material logistics as a constraint have been prepared and the first null hypothesis Ho1 is rejected and the second null hypothesis Ho2 is accepted as it is due to research finding indicating that market strategy is having a direct impact with Pearson correlation factor ($r=0.868$) strong positive significant correlation than raw material and logistic Pearson correlation factor ($r=0.243$) which is weak positive significant correlation. This weak correlation result indicates market strategy have a direct impact than raw material and logistics constraints on PPC. To solve problems such as, market is dominated by overseas products and lack of simplified production planning and control system to overcome resource constraints an integration of pull and push production system has been forwarded. The integration model has three main parts including supply chain and marketing, manufacturing, and management strategies.