

The mass production, for this purpose, the simulation

[Business](#), [Strategy](#)



The push pull and pull strategies are compared for the production ordering system along with the mathematical model of the particular system under observation. The basic focus was the balancing of inventory to their maximum level while at the same time to fulfill the maximum orders received (Takahashi and Soshiroda 1996). It was claimed that hybrid push and pull system is the best system for mass production, for this purpose, the simulation strategy software as developed which controlled different strategies by different equations, this was also used to analyse the control strategy of production line (Wang and Xu 1997). As the Japanese kanban system is considered as the pull production system which is mostly used for the shop floor control of the product flow so the main area of concern appear to integrate the manufacturing strategies with the business strategies for which the integration of push with the pull production system is effective (Olhager and Östlund 1990). A case of an automated system with low variability was analyzed under the integration of controlled pull pull system. A model of horizontally integrated push/pull hybrid production system integrated system (HIHPS) was developed and this model was used to make the system optimized in terms of total cost which includes the lost sale and the holding cost of inventory.

A mix system was analyzed which consist on the push system followed by a pull system (Cochran and Kim 1998). The framework was proposed applying the push and pull on multi stage with the consideration of WIP and throughput as the parameter of system along with the surprising nature of system, when the push and pull might be interchange with each other (Grosfeld-Nir, Magazine et al. 2000). Supply chain consist of multiple driver possibilities,

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there is also a possibility of integrating Just In Time and MRP. The work stations in this system undergoes in multiproduct system and so they produce more than one item in the process. A modification of genetic algorithm is also developed in this system which help to determine the stochastic performance by discrete event simulation. This also increase the chances of asking that whether the junction point of this system should be single or common (Cochran and Kaylani 2008).

Basically, the hybrid push pull system reduce the sum of inventory cost and lead time. In the hybrid system, the upstream production is controlled by push system while downstream production is controlled by pull system. Push system anticipated the high inventory cost in the return of low delivery time while pull system does the vice versa. The comparison of pure push pull and hybrid system shows that hybrid give economically good results to the companies (Ghrayeb, Phojanamongkolkij et al. 2009). Availability of product cause a great impact on the supply chain instability and customer demand. Profitability of company depends on their reaction to the action of demand variation by customer.

customer response in two different scenarios in analyzed the first is the case of availability and second is product shortage when the customer needs for alternative resources (Gonçalves, Hines et al. 2005). The formulated control model for push and pull production system work well for both system but in this we have to follow the control for the one system at a time. The formulated control model of the hybrid push pull is more effective in terms of controlling the cost of the system and optimizing the customization point.

(Takahashi and Nakamura 2004). . The average sum of production, transportation and inventory cost can be minimized by applying two stage push pull production distribution supply chain where the orders arrive at the end of the line according to the Poisson distribution with the exponential service time at the stations (Ahn and Kaminsky 2005). To encounter the variability of external demand most companies go on increasing the inventory in the system which ultimately make the holding cost much greater .

To overcome this a hybrid push pull strategy is used which has the multiple stock points are used after the junction point of push pull. It increases the robustness and capability to meet the demand variation (Kim, Fowler et al. 2012)