

# [The mass production, for this purpose, the simulation](https://assignbuster.com/the-mass-production-for-this-purpose-the-simulation/)

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The push pull and pull strategies are compared for the productionordering system along with the mathematical model of the particular systemunder observation. The basic focus was the balancing of inventory to theirmaximum level while at the same time to fulfill the maximum orders received(Takahashiand Soshiroda 1996). It was claimed that hybrid push and pull system is the best system formass production, for this purpose, the simulation strategy software asdeveloped which controlled different strategies by different equations, thiswas also used to analyse the control strategy of production line(Wangand Xu 1997). As the Japanese kanban system is considered as the pull productionsystem which is mostly used for the shop floor control of the product flow sothe main area of concern appear to integrate the manufacturing strategies withthe business strategies for which the integration of push with the pullproduction system is effective(Olhagerand Östlund 1990). A case of an automated system with low variability was analyzed underthe integration of controlled pull pull system. A model of horizontallyintegrated push/ pull hybrid production system integrated system (HIHPS) wasdeveloped and this model was used to make the system optimized in terms oftotal cost which includes the lost sale and the holding cost of inventory.

Amix system was analyzed which consist on the push system followed by a pullsystem(Cochranand Kim 1998). The framework was proposed applying the push and pull on multistagewith the consideration of WIP and throughput as the parameter of system alongwith the surprising nature of system, when the push and pull might beinterchange with each other(Grosfeld-Nir, Magazine et al. 2000). Supply chain consist of multiple driver possibilities, there is also apossibility of integrating Just In Time and MRP. The work stations in thissystem undergoes in multiproduct system and so they produce more than one itemin the process. A modification of genetic algorithm is also developed in thissystem which help to determine the stochastic performane by discrete eventsimulation. This also increase the chances of asking that whether the junctionpoint of this system should be single or common(Cochranand Kaylani 2008).

Basically, the hybrid pushpull system reduce the sum of inventory cost and lead time. In the hybridsystem, the upstream production is controlled by push system while downstreamproduction is controlled by pull system. Push system anticipated the highinventory cost in the return of low delivery time while pull system does thevice versa. The comparison of pure push pull and hybrid system shows thathybrid give economically good results to the companies(Ghrayeb, Phojanamongkolkij et al. 2009). Availability of product cause a great impact on the supply chaininstability and customer demand . profitability of company depends on thereaction to the action of demand variation by customer .

customer response intwo different scenarios in analyzed the first is the case of availability andsecond 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 workswell for both system but in this we have to follow the control for the onesystem at a time. The formulated control model of the hybrid push pull is moreeffective in terms of controlling the cost of the system and optimizing thecustomization point.(Takahashiand Nakamura 2004). . The average sum of production, transportation and inventory cost canbe minimized by applying two stage push pull production distribution supplychain where the orders arrive at the end of the line according to thePoisson  distribution with the exponentialservice time at the stations(Ahn and Kaminsky2005). To encounter the variability of external demand most companies go onincreasing the inventory in the system which ultimately make the holding costmuch greater .

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