

Case study analysis of ready meals

Education



1. Before and After Status of Ready Meals

Ready Meals (RM) are a freshly prepared meals supply company with a major grocery retailer Strutt within its customer base. Strutt had previously employed a central ordering system that disregarded uncertainty and volatility factors in customer demand, where uncertainty is critical when designing any operational model. Koh (2004) defined it as the unpredictable event that has a disturbing impact on production and operations and causes model predictions to be different from reality.

RM faced high demand, variability and uncertainty. On a weekly basis demand varied by 10 to 25% and, at times, exceeded 50%. The company had difficulty dealing with Strutt, which often charged them financial penalties in case of wastage or ill-timed supply.

Variability and uncertainty has an impact on optimal safety stocks and lead times (Molinder, 1997).

In the old system:

Due to demand fluctuations orders were calculated sometimes two days prior to dispatch which extended supply lead time.

A lot of sauce would go wasted due to demand variations.

Trade-offs and buffering mechanisms were employed to solve volatility and uncertainty issues (Wazed, Ahmed and Yusoff, 2009). In the old system, a buffering mechanism changed working hours unannounced, which disappointed the employees and increased costs.

Due to a central material requirement planning system (MRPS), impact of

uncertainty was passed to suppliers. The orders were based on a provisional order because of required lead time. If the original/provisional order was low, the suppliers were pressurised for an urgent order. There was no mechanism to avoid wastage or stock from exceeding planned replenishment when the provisional order was higher.

To increase availability of stock, the company had to either change the days in system or the planned coverage level. The former increased wastage risk, whilst the latter equated three times higher change in overall stock.

The company needed a better designed system that addressed the weaknesses of the existing one.

After implementing the new system:

Because of the adjustment, it became possible for season and weekly schedules to be set and the uncertainty in demand was greatly reduced which lead to timely supplies and fewer penalties.

The shelf -life of products for Strutt was increased by dispatching orders early and on production days.

The quantities packaged were according to requirements of stores by specifying location of delivery depot two days prior to despatch. This further helped avoid delays in shipment.

The wastage rate of the company was effectively reduced. This lead to an eradication of the requirement to use the annualised hours buffering mechanism.

The suppliers were also able to deliver more efficiently according to demand. The overall impact was a 90% increase in the company's products in stores.

2) Operation Management Laws and Theories and Cause Effect

Relationships:

The case of RM showed that in the old system, the company mostly followed the traditional operational management laws and theories. The old system was based on a trade-off model in which companies often compromise quality for cost minimisation. Ferdows and De Meyer (1990) theorised that in order to achieve cost efficiency, focus of management should first focus on quality, dependability and then flexibility of production. This cause and effect relationship can be seen within the new system employed by RM. In the new system, the focus of the company was not cost, but on quality, by increasing shelf life of products. Allowing for delivery order two days earlier, the company sanctioned dependability as well as flexibility. This meant that the penalties were effectively removed as well as the wastage. The new system can be said to be based on a just-in-time model (Ohno, 1998). According to the just-in-time concept, materials or parts are delivered when they are needed. This leads a reduction in wastage and no inventory.

Regarding variability and use of trade off buffering, Hopp & Spearman (1995) said that increases in variability decreases the performance of the system and it can only be buffered using capacity, time and inventory. This was a traditional concept and the old system worked according to it. To deal with variability, the company used a capacity buffer (annualised hours for labour). This helped in dealing with variability but resulted in low morale among employees, thus low performance and an increase in costs. Fisher (1997) suggested the modern theory of accepting the uncertainty. According to him, uncertainty and variability are natural in products and adjustments have to

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be made in the production system to deal with them. Uncertainty can be avoided or reduced by increasing flexibility of supply chain and by cutting lead time. For hedging excess capacity or inventory, buffers can be employed. The new system accepted the uncertainty as they made adjustments for seasonal variations. Furthermore, dispatching on production day decreased lead time and such steps reduced the impact of uncertainty. The company, however, reduced the capacity buffer and was able to increase its availability by 90%. This is in accordance with the findings of Schmenner and Swink (1998) who gave a view that buffers should be avoided and when variations are reduced, the companies should avoid buffering for improved flow. This was found to be true in the case of RM. The company did have to use annualised hours or labour productivity buffers. This resulted in reduced costs and the performance of the company improved.

3) General Advice:

On the basis of the RM case analysis, it is recommended that the company should accept uncertainty and volatility and make system adjustments accordingly. The buffer mechanisms, may appear effective at first, but the acquisition of an optimal level in trade off seems difficult therefore the company should try to find some other way to tackle this issue and rely less upon the trade-off buffering. For instance, fluctuations in demand can be dealt with by making the system more dependable and flexible.

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