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**E Beer Game Report**

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# Case 1: Classic Case

Retailer – All through week 1-10, retailer was trying to place orders to match his/her inventory levels, according to demand, but going forward as inventory levels went down retailer started placing higher demands even through demand was consistent at 8 per week.

Wholesaler – Initial week 1-10, wholesaler also tried to keep its inventory levels low and just matching the demand from retailer and placing order accordingly. But between week 15-10 the backlog increases as there were increase in order from Retailer but less supply from the Distributor. So, to keep the inventory level optimal he started placing higher demands to distributor but lacked in the incoming supply. Wholesaler placed 227 units order in just 7 weeks between week 22-27. In Later weeks the order from the wholesaler went down but the supply went higher leading reduction in backlogs but increase in inventory.

Distributor – Unlike wholesaler, distributor was trying to maintain initial inventory level of just 4 and was placing orders keeping in mind only incoming demand. This was going fine till week 15. But as distributor’s inventory levels were not fulfilled and there was consistent pressure from bottom line to ship more and more, distributor panicked and placed 232 units order to manufacturer before realizing that he has over ordered.

This led to stockpile up at distributor end, and he ended up with very high cost of inventory holding

Manufacturer – Manufacturer was caught in catastrophic effect, because he was just trying to produce whatever was demanded by distributor. But due to inconsistency in demand patterns from manufacturer and opacity in what was going on, manufacturer also ended up piling lot of stocks

## Exhibit 1: Graph representing no. of orders paced at each level

## Exhibit 2: Table representing Pros and Cons of strategy at each level

Representing what was done nicely and what could have been improved –

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | Retailer | Wholesaler | Distributor | Manufacturer |
| Week 1-10 | Pros – Retailer was maintaining demand to wholesaler at par with demand from market.  There was consistency | Wholesaler was trying to keep minimum inventory and at same time, trying to fulfill retailer’s demand, keeping in mind to keep inventory of 0.  Cons – Inconsistent order sizes.  The order from retailer on higher side lead to increase in order from wholesaler to distributor. The supply was less as a result of which the backlogs increase. The wholesaler was trying to reduce the backlogs and tried to keep the inventory at optimum level. | Distributor was trying to maintain inventory level of 8.  Cons – Inconsistent order sizes like 4 to 16, makes it difficult for top line to understand demand | Pros – Even though inconsistency was there in order placements by wholesaler and distributor, manufacturer was scheduling consistent production.  Cons – This resulted in low production schedule and pressure by end of week 10 |
| Week 11-20 |  |  |  |
| Week 21-30 |  | Pros– The wholesaler was trying to keep the inventory level optimal which was high in backlogs as there was suddenly huge decline in orders after series of high orders which lead the wholesaler to place high orders, but the supply were consistently low. | Cons – Distributor was placing unnecessary bigger orders, thinking about future demands and hoping that he will take care of future, without realizing future prediction is very difficult and not counting past orders properly. This added to the inventory cost considerably. |  |
| Week 31-40 |  |  |  |

# Case 2: Transparent Case

Even though everyone was able to see the actual market demand, inconsistency at scheduling production on Manufacturer’s end and wholesaler’s end resulted in higher costs

## Exhibit 3: Graph representing no. of orders paced at each level

## Exhibit 4: Table representing Pros and Cons of strategy at each level

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | Retailer | Wholesaler | Distributor | Manufacturer |
| Week 1-10 | Pros – Retailer was maintaining demand to wholesaler at par with demand from market.  There was consistency | Wholesaler was trying to keep minimum inventory and at same time, trying to fulfill retailer’s demand, keeping in mind to keep inventory of close to 0.  Cons – Inconsistent order sizes.  Wholesaler was trying to keep his inventory levels keeping in mind the retailers demand. | Distributor was trying to maintain inventory level of 8.  Cons – Inconsistent order sizes like 4 to 16, makes it difficult for top line to understand demand | Cons – Even though actual market demand was 8, due to distributor’s error, production in initial week was scheduled for 4 units per week only. |
| Week 11-20 |  | Pros – On realizing low production schedule in initial week, higher production units were scheduled for production |
| Week 21-30 | Cons – Distributor was placing unnecessary bigger orders, because bottom line was sending inconsistent patterns | Pros –  In last 20 weeks, manufacturer understood the behavior of distributor and market demand and adjusted his scheduled production accordingly. |
| Week 31-40 | Pros – On realizing inconsistency in patterns from wholesaler, distributor tried to smoothen out order placements, and not completely relying to wholesaler. |

# What could have been better strategy

1. Retailer could have been consistent in its order placement pattern, even in classic game. Retailer did it right in transparent game.
2. Wholesaler could have maintained minimum inventory level of 8 on its end, instead of trying to make it 0.

Also, calculating the number of units already scheduled for orders and not placing panicked orders even though current inventory levels went negative.

1. Distributor was having some demand forecast for future in mind during classic game, this resulted in scheduling inconsistent order placements and causing catastrophic effect on manufacturer’s end.

Distributor was trying to match wholesaler’s demand even though actual demand was much lower. Instead of relying too much on wholesaler’s pattern, actual market demand pattern could have been followed.

1. Manufacturer was scheduling very low production initially, and this created panicked situation even in transparent case because of this market demand was not getting fulfilled and ultimately, we can see huge production scheduling spikes.

# Conclusion

To conclude with the learnings, with this game we realized the situation of a live blockchain, where even though we were labeled as team, all four involved segments should not ideally work as a team. Individual segments are to think of reducing their own levels of inventory costs and backlogs (in terms of opportunity cost). This can happen by studying and analyzing the past demand and supply patterns of the dealing parties and use the same to efficiently predict the future demand and supply.