Retailer

Individual Performance - Fill rate vs. Cost

The capacity to fulfill the clients needs can be illustrated by the 'Fill rate' (% of units shipped on time).
We may target a more reasonable Fill rate (97% for example) if this helps reduce significally supply-chain costs.

Retailer

148 / 148 = 100%
Units sold on time

-$34
Cost

Wholesaler

144 / 144 = 100%
Units sold on time

-$110
Cost

Distributor

148 / 152 = 97.3%
Units sold on time

-$135
Cost

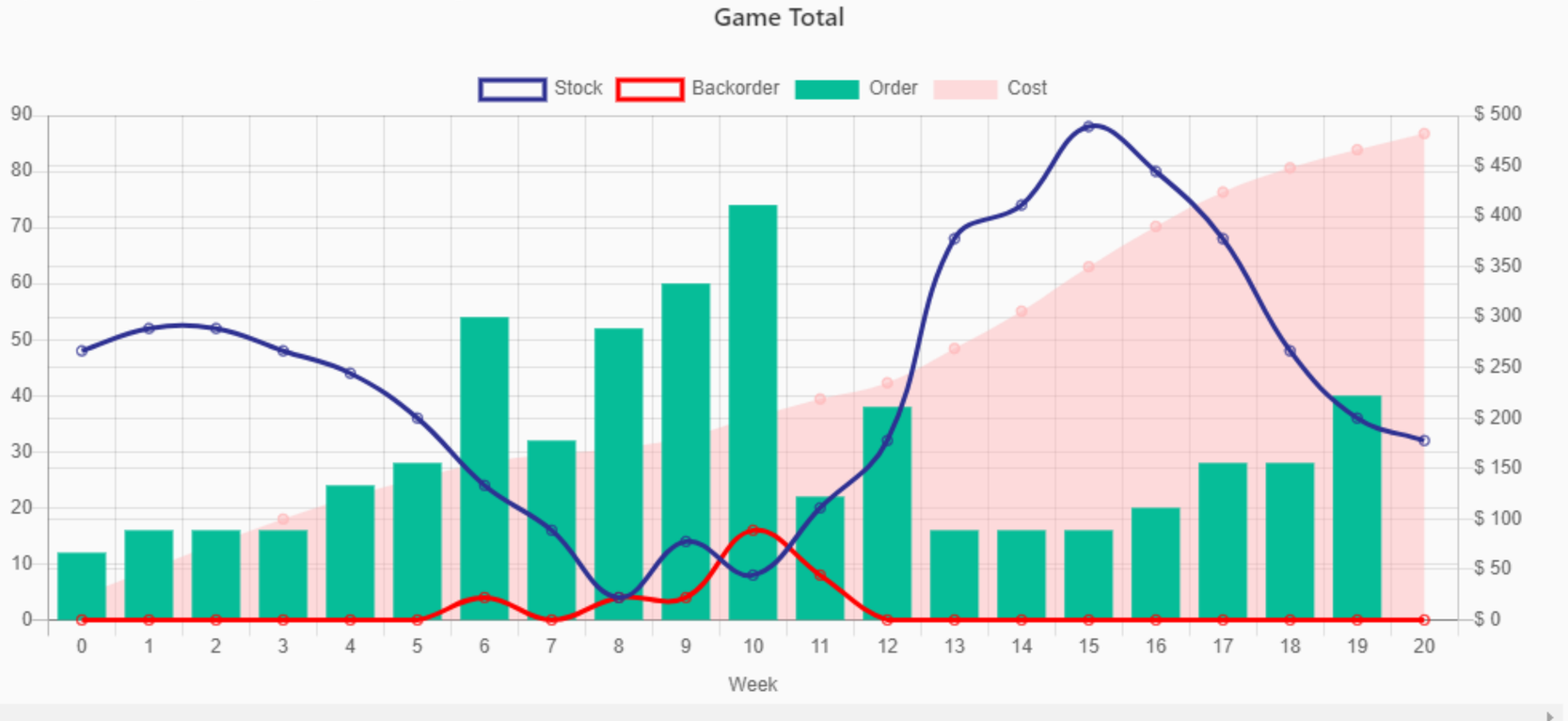
Manufacturer

140 / 160 = 87.5%
Units sold on time

-$203
Cost

Supply Chain evolution

See below the evolution of key metrics throughout the game, all stages combined.



Wholesaler

Individual Performance - Fill rate vs. Cost

The capacity to fulfill the clients needs can be illustrated by the 'Fill rate' (% of units shipped on time).
We may target a more reasonable Fill rate (97% for example) if this helps reduce significally supply-chain costs.

Retailer

148 / 148 = 100%
Units sold on time

-$108
Cost

Wholesaler Pattarapon

156 / 156 = 100%
Units sold on time

-$104
Cost

Distributor

152 / 152 = 100%
Units sold on time

-$111
Cost

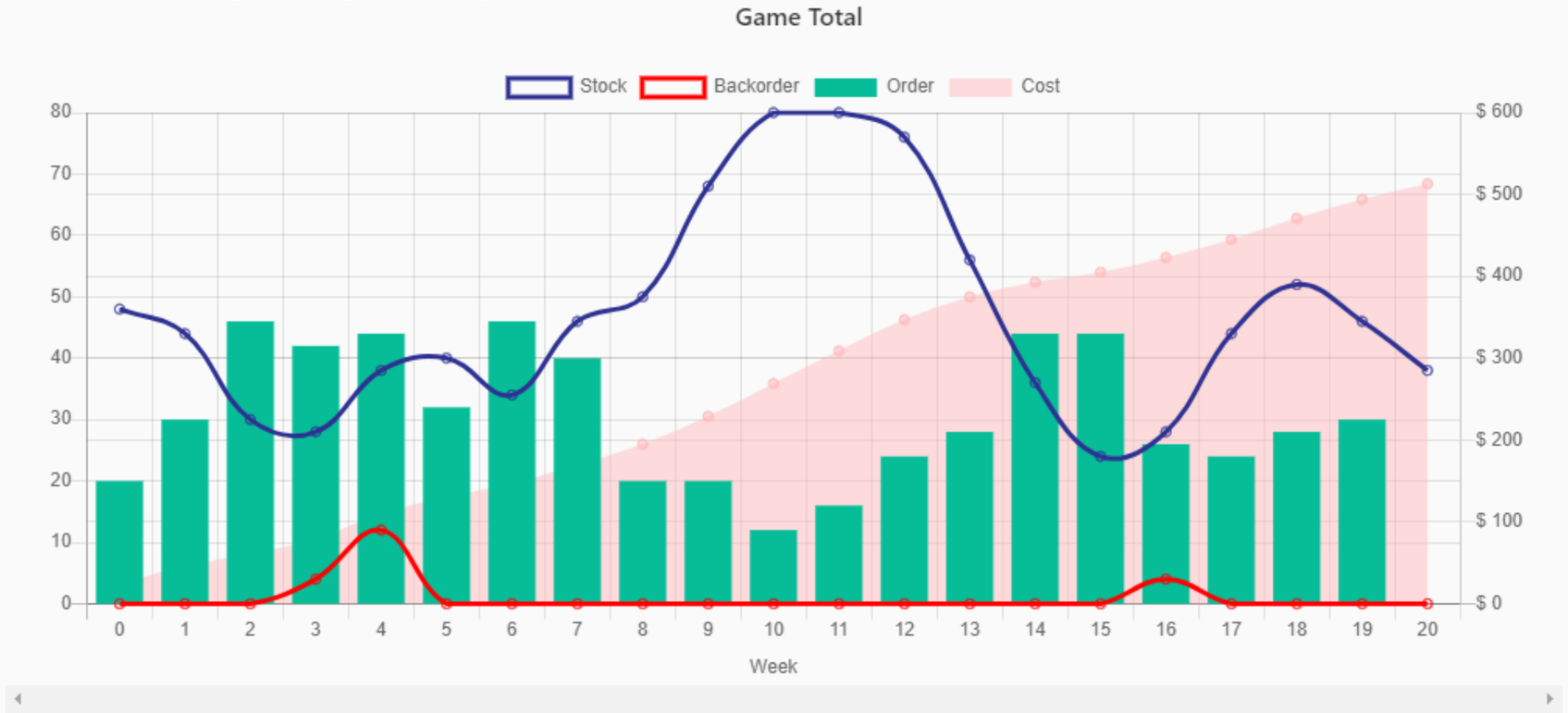
Manufacturer

144 / 160 = 90%
Units sold on time

-$190
Cost

Supply Chain evolution

See below the evolution of key metrics throughout the game, all stages combined.



Distributor

Individual Performance - Fill rate vs. Cost

The capacity to fulfill the clients needs can be illustrated by the 'Fill rate' (% of units shipped on time).
We may target a more reasonable Fill rate (97% for example) if this helps reduce significally supply-chain costs.

Retailer

148 / 148 = 100%
Units sold on time

-$110
Cost

Wholesaler

144 / 156 = 92.3%
Units sold on time

-$153
Cost

Distributor Pattarapon

164 / 164 = 100%
Units sold on time

-$161
Cost

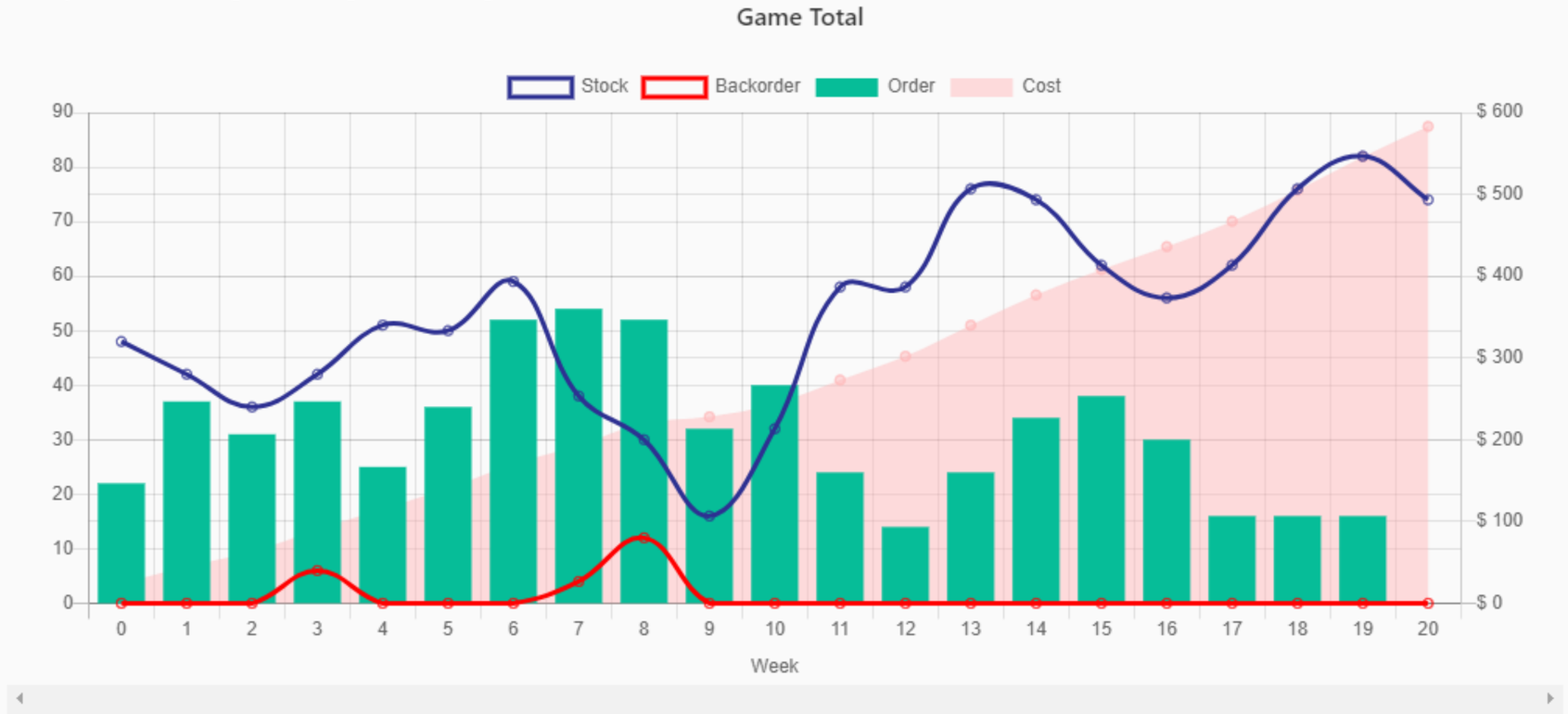
Manufacturer

146 / 152 = 96%
Units sold on time

-$159
Cost

Supply Chain evolution

See below the evolution of key metrics throughout the game, all stages combined.



Manufacturer

Individual Performance - Fill rate vs. Cost

The capacity to fulfill the clients needs can be illustrated by the 'Fill rate' (% of units shipped on time).
We may target a more reasonable Fill rate (97% for example) if this helps reduce significally supply-chain costs.

Retailer

148 / 148 = 100%
Units sold on time

-$120
Cost

Wholesaler

124 / 156 = 79.4%
Units sold on time

-$328
Cost

Distributor

136 / 178 = 76.4%
Units sold on time

-$439
Cost

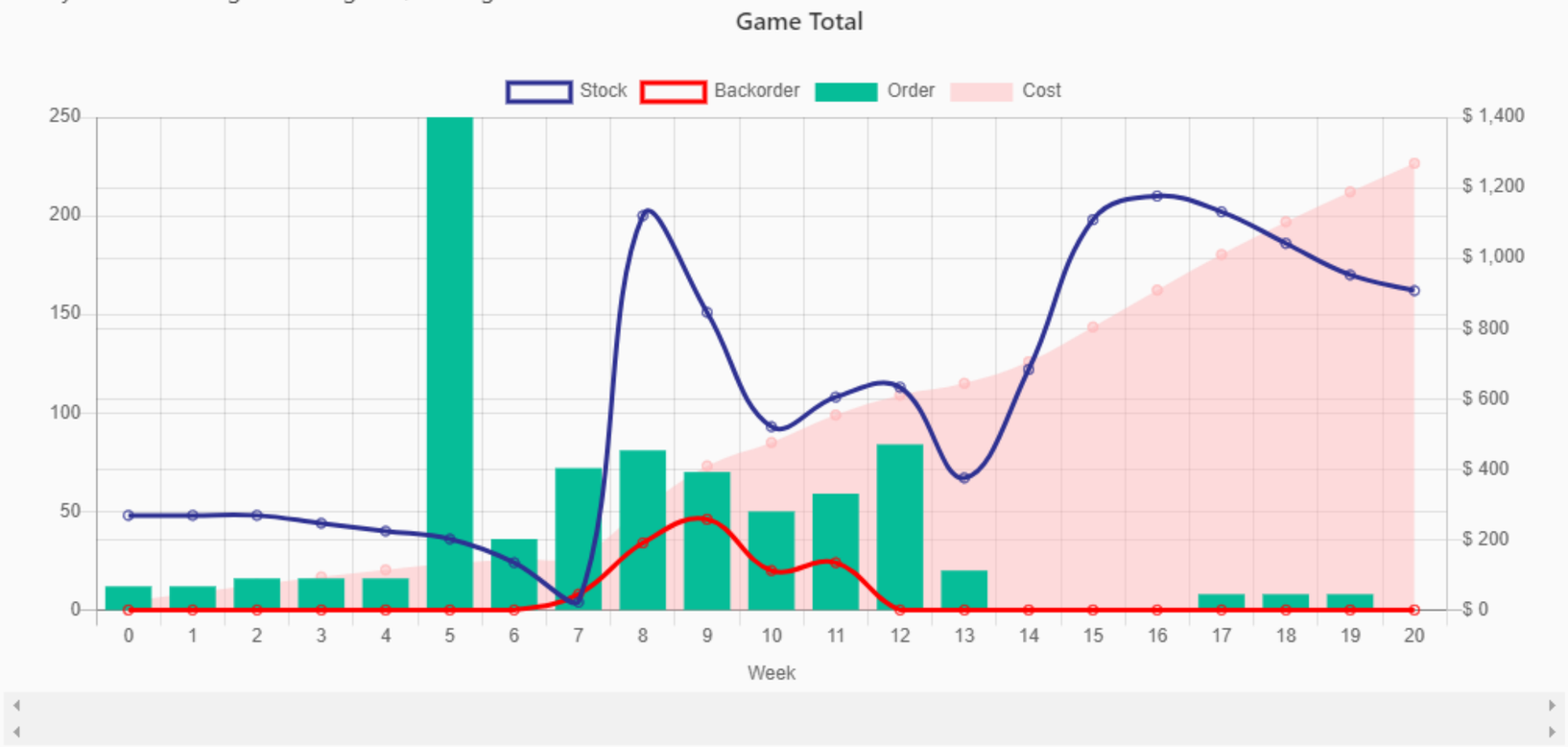
Manufacturer Pattarapon

254 / 254 = 100%
Units sold on time

-$383
Cost

Supply Chain evolution

See below the evolution of key metrics throughout the game, all stages combined.



Discussion: The graph tells the combined value of stock, backorder, order, and cost from the whole supply chain (Retailer, wholesaler, distributor, and manufacturer). When I played as a retailer, wholesaler, and distributor, the orders are stably increasing/decreasing, which I can control the orders easily. But, when I played as a manufacturer, there are big order lots after the small, casual orders, followed by no orders at all. This can be implied that maybe the customers are hoarding the goods at one time, and then no one wants it after all. This could lead to an overstock of the manufacturer that could cost a lot of money since it has to store too many goods. In order to cope with that, the distributor should contact the manufacturer earlier, so it can produce a larger lot further. The first three supply chains are nicely optimized (in my opinion), but in the last supply chain graph, you can see a huge spike in production, that is because there is dramatically increased demand as well.

Conclusion: The supply chain is a system of producing and delivering goods or services, from the initial (production) stage of raw materials to the final delivery of the goods or services to the customers. It includes many factors, such as people, resources, information, etc. It also describes the steps that takes to get the goods or services from the manufacturer to the distributor, to the wholesaler, to the retailer, and vice versa.