- We conduct some experiments to testify the effectiveness by allowing vessels to transfer to collaborative terminals when disruptions happened.

- Instance parameters for Set X are shown as follows:

Instance	$\|V\|$	$\|V1\|$	$\|V2\|$	$\|I\|$
Set 1	15	5	10	10
Set 2	21	6	15	30
Set 3	28	8	20	40
Set 4	40	10	30	60

- We generated four instance sets with different number of vessels and it varies between 15, 21, 28, and 40, for example, there are 28 vessels in Set 3, in which 8 mother vessels, 20 feeder vessels, and 20 transshipment connections occur.
- Four disruption scenarios are generated. In Scenario 1, 30% of vessels are delayed to be operated because of vessel arrival delay and quay crane breakdown. The proportion is 35%, 40% and 50% in Scenario 2, Scenario 3 and Scenario 4 respectively.
- Set1-01 means the instance Set 1 under Scenario 1.
- The results obtained by the SWO-heuristic with and without considering collaboration between terminals are presented in **Figure. 3.8**。
- The percentage of cost savings of four sets in four scenarios are obviously shown in **Figure 3.9**.
- The unit cost of horizontal moving of containers c1 and penalty cost for delaying transshipment flow c2 affect the final results. Hence, we analyze the two parameters to show their influence on the objective function. In **Figure 3.10 (a)**, c1 is set from 0.01 to 0.08, c2 is kept at 0.1. In **Figure 3.10(b)**, c1 is set as 0.01 while c2 varies from 0.2 to 0.8.
- **Figure 3.11** shows different R (indicator for measuring resilience) under different instances from Set1 to Set4.