ASSIGNMENT - 1 : Q2

The presented mechanism for one sided market is not satisfactory in comparison to the original *DRAW* mechanism.

In the original draw mechanism, if there are n candidates, i^{th} candidate does not have to think about the preferences of $(i+1)^{th}$ to nth candidate because he will be allotted the best available preference of his list. Hence, honesty will be the best policy in the draw. However, the case is not the same here. If the person is honest here, he may regret later.

Consider the following preference order (x,y - honest, z-misreport)

x	y	z
a	a	b
b	b	a
c	c	c

Without the loss of generalisation(because allotted number is random and preferences are also random), suppose the following order is alloted -

X - 1
Y - 2
Z - 3

In this case, x will be given a, y will go unassigned in the first iteration, z is allotted b. Therefore, y will be allotted c in the second iteration. If z has given an honest preference (a,b,c). Then he may get c. Therefore, the given mechanism is not strategyproof.

However, candidates must fill as many preferences as possible. At the sametime, candidates may fill second or third as their top one to minimise the loss or regret from the given mechanism. Also this mechanism is pareto optimal. Therefore, no one can become better without worsening the result of others.

I don't think this mechanism affects everyone equally. Keeping the same order, irrespective of the mechanism, the last candidate obviously gets the better choice this time because popular preferences may be left this time, till he gets his chance.