

# Clean sweep, inc.: case study

Business



Service Enterprise IE-497B Dr. A. Ravindran October 5, 2007 Case Study #2  
(Clean Sweep, Inc.

) Made by: Moises Eidelman 1 Question #1) Plot the Run Charts for (a) total number of complaints and (b) complaints for each crew. Part (a) Table 1

Total number of complaints per month month 1 2 3 4 5 6 7 8 9

# complaints 35 31 24 21 16 14 8 15 14 Figure 1 Run chart for total number of complaints 2 Part (b) Table 2 Total number of monthly complaints

per crew onth 1 2 3 4 5 6 7 8 9 crew #1 7 5 3 3 4 2 1 4 3

Crew #2 8 8 6 6 4 6 4 3 5 Crew #3 11 11 12 8 5 5 2 6 5

Crew #4 9 7 3 4 3 1 1 2 1 Figure 2 Run chart for complaints for each

crew 3 Question #2) Prepare an X-bar chart for complaints and plot the average complaints for each crew during the 9-months period. Do the same for the performance ratings. Since there are 10 buildings, use  $n = 10$  as the sample size for the X-bar charts. Table 3 Complaints per each

buildingComplaints about Cleaning Crews month 1 2 3 4 5 6 7 8 9 A

2 1 0 1 1 2 0 1 1 Be 5 6 6 5 3 5 4 2 2 Bw 7 8 8 4 2 3 2 4 4

C 3 2 1 1 2 0 1 2 1 D 2 1 0 0 0 1 0 1 1 E 3 1 2 1 1 0 0 0 0

F 2 2 2 1 1 0 0 1 1 G 4 3 4 4 3 2 0 2 1 H 3 2 0 1 1 1 0 1 3 I

4 5 1 3 2 0 1 1 0 X bar 3.

5 3.1 2.4 2.1 1.6 1.

4 0.8 1.5 1.4 Range 5 7 8 4 2 5 4 4 4 Table 4 Calculations and

results for the UCL, CL and LCL of complaints  $\bar{X} = 1.778$   $R =$

4.

7778  $A2 = 0.3080$   $UCL = 3.4493$   $CL = 1.9778$   $LCL = 0.5062$  4 Figure 3 X-bar chart for average # of complaints per crew Table 5 Performance rating per building Performance Ratings about Cleaning Crews

month	1	2	3	4	5
A	7	7	8	7	6
B	5	5	5	5	6
C	6	6	6	8	7
D	7	6	8	8	8
E	5	5	5	6	6
F	6	6	6	7	7
G	5	5	6	5	5
H	4	5	6	6	6
I	5	4	7	6	6
X bar	5.	5.			

2 6.1 6.3 6.3 6.3 7 6.4 6.

4 range 4 4 4 3 3 3 2 3 3 5 Table 6 Calculations and results for UCL, CL and LCL of performance rating  $\bar{X} = \bar{R} = A2 = UCL = CL = LCL = 6.1444$   $3.2222$   $0.3080$   $7.1369$  6.

1444 5. 1520 Figure 4 X-bar chart for average rating per crew 6 Question#3) Based on the analysis done in Question 1 and 2, what can you conclude about the service quality of the CSI crew? From the charts in the above questions, we can clearly see that Crew #1 and 4 are the ones with the less number of complaints. Also in the X-bar charts those two are the that are closer of being in control at all time. Figure 3 shows that Crew #1 only went out of the control limits once and Crew #4 only twice. We can also see that there is a reduction in the number of complaints in general, so we can conclude that it could be because of the lack of training received. One way to solve this problem could be training the personnel before the job so that they can have good performance on the first month of work.

Question #4) Analyze the Job-related complaints from crew members. What does this analysis reveal about the morale of the CSI crew? In Table 6. 12 in <https://assignbuster.com/clean-sweep-inc-case-study/>

the Case study #2 there are the Job-Related complaints from crew members and they are divided into two general categories: (a) inequity in crew leaders' attitude and performance expectations and (b) lack of opportunity for personal advancement. If we take a look at the complaints per crew at first sight we can clearly see that the level of complaints is much smaller in crew #1 and crew #4, although in the crew #4 there are more complaints about the lack of opportunity of advancement. We also have to take into account that crew #1 is the one with less number of members in the team with 6, whereas the other have 8 or 9. If we take a look at the complaints from crew #2 and crew #3 we can see that they are in average 3.

44 complaints per month for crew #2 and 3. 89 for crew #3. We also know that the leaders for crew #2 and #3 are the strictest in the supervision, whereas leaders of crew #1 and #4 are least strict. There is also another important aspect of the job, it is the total ft<sup>2</sup> assigned to each crew. If we take a closer look we see that there is a big difference in the total area assigned for an individual worker in the crew 1 and 3, which are 18, 333ft<sup>2</sup> and 20, 000ft<sup>2</sup> respectively. 7 From this analysis we can conclude that the # of job-related complaints is related to the level of strictness from the crew leader.

Also we noticed that for crews with less number of members there are more opportunities for advancements. Question #5) Discuss possible ways to improve service quality and crew morale. Justify with numbers where possible. In order to improve service quality I think that some modifications need to be made. The first one will be to decrease the number of members per crew to 6; this will improve crew morale since there will be less

complaints. Also having a leader in the middle between strict and not so strict will help reducing the number of complaints; there has to be some standards regarding the breaks and lunch times, this will make things easier and will leave no chance of personal judgment which is the main cause of the complaints.

CSI should be considering some kind of incentive for their workers, it can be depending on the performance. Measuring the square feet that each worker covers can be helpful. Having incentives is always helpful and works good on making workers feel opportunities of personal advancement. In addition establishing goals will be a good thing to do in order to minimize the number of complaints and to improve the service quality. 8