

Balancing Customer Satisfaction and Productivity

By Uwe H Kaufmann

Your staff members complain about having too much work, the proportion of people on short-term sick-leave is consistently above average and the turnover rate is disturbingly high. Do these symptoms indicate that you need to increase your staffing? However, the average number of daily transactions processed shows that your staff should be able to easily handle the volume. So, what is the problem?

Understanding Variation is Key

A Medical Service Provider (MSP) in Singapore was facing this kind of problem.

After basic analysis on takt time for key staff like nurses and comparing it with the typical processing time for steps they perform, the conclusion was sobering for the management: there are ENOUGH nurses!

The second level of analysis was concentrated on understanding the demand pattern, i.e. the number of customers over time. Fortunately, the full set of data from January to December 2008 was readily available for analysis.

Everyone expects a certain pattern of demand over weekdays, and anticipates peak demand on Fridays. And everyone would assume that most walk-in customers show up around lunch time – similar to many other service providers. This knowledge is used for the allocation of the workforce for different weekdays and for the opening hours over a day. And, this is what the management of this service provider does very professionally. However, this did not result in higher customer satisfaction nor employee motivation. Why?

The real problem lies in the variation of the demand pattern.

The average number of customers on a Friday is 264 with a minimum of 200 and a maximum of 391. An additional factor that contributes to the variation is the inhomogeneous distribution of customer requests over a day. On an average Friday, there are about 15 customers between 10:00h and 11:00h with a minimum of five and a maximum of 36. Given a treatment time of about 15 minutes, this means in this specific time interval on the same day of the week, there is a need to have a minimum of two nurses and a maximum of nine.

This variation leads to lull times when it looks like staff is idle with the conclusion of resources being wasted. And, at peak times, long queues with a waiting time up to an hour lead to low customer satisfaction rating and perception of poor service.

Looking at the variation in demand can only reveal part of the problem's causes. The other part lies in the variation of processing time of treatment procedures that are quasi standard. In fact, they are not. Observation has shown that the typical treatment time by nurses of around 15 minutes can be shortened only minimally but easily take much longer resulting in a nurse being busy attending to one customer for much longer than planned, although the procedure for the treatment seems to be quite the same for all customers. Thus on some

Takt Time

Takt time is an indicator specifying the available time per customer request. I.e. if you expect 200 customers per day and you are "open for business" for 10 hours, takt time equals to three minutes per customer.

All process steps involved need to be done within takt time. Consequently, process steps exceeding takt time require multiple resources, i.e. a process step that takes around 15 minutes requires at least five, better yet six resources.

days even having the right number of nurses on shift for the number of customers arriving leads to a shortage due to treatment time variation, i.e. long waiting time and lower customer satisfaction.

All the above mentioned facts reveal a massive gap between customer demand and workforce planned to meet this demand. It is extremely difficult to balance between reducing waste caused by overstaffing and having frustrated customers and employees caused by understaffing the process.

How can this gap be closed?

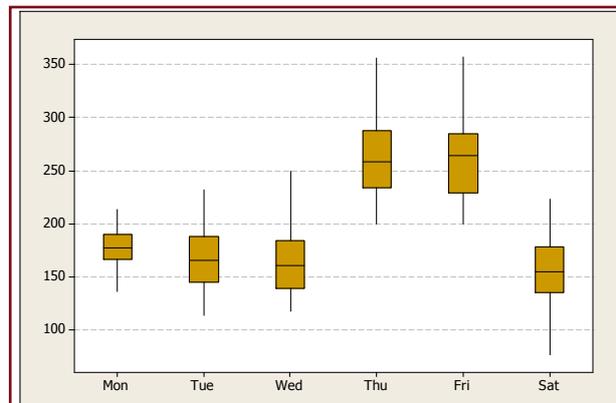


Figure 1: Boxplot of No of Customers per Day of Week

Fighting and Accommodating Variation is Possible

No workforce planning is able to accommodate this kind of situation completely.

The approach to solve this sort of issue is complex. It involves reducing variation in demand and in treatment time on the one hand. On the other hand, it requires a very flexible approach to workforce allocation – be it employees or be it external support staff.

Firstly, customer demand variation is hard to completely overcome but almost always somewhat controllable. An appointment system can help reducing the demand variation or, at least, make the variation more predictable. Our Medical Service Provider has introduced some incentives to “sell” the appointment idea, if customers do not use this system although they could. A fast-track lane for appointment customers with some small benefits like less waiting time will serve as an encouragement. It comes as an advantage for MSP that their customers are mostly recurring, i.e. they can be “trained” over time.

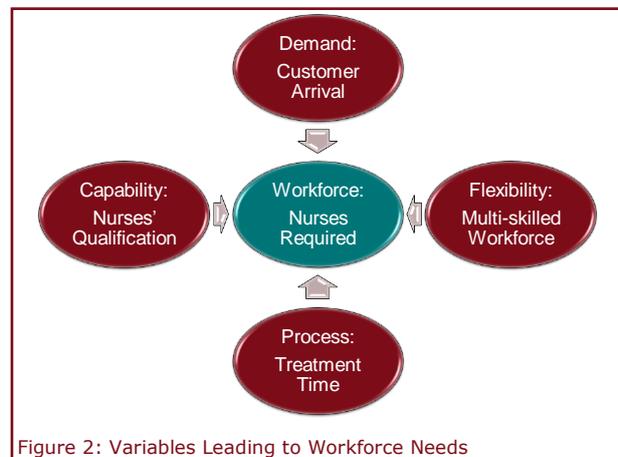


Figure 2: Variables Leading to Workforce Needs

Secondly, managing customers' expectations of waiting time can lead to less frustration during the queuing process. There is a difference between a bare white waiting room full of annoyed customers and a more conducive waiting area with TV screens and internet portals as well as some toys for kids. MSP is running TV programmes and movies on the screens in the waiting area to inform and entertain their customers.

Thirdly, running a large scale service centre has an advantage compared to a small clinic with one doctor and one nurse: the larger service centre has more staff who – if utilised flexibly – will be able to balance workload between separate steps of the whole process. The impact of our demand variation problem can be dramatically reduced by overcoming the mindset of “this is my job and that one is your job”. MSP has introduced a skills upgrade programme that enables, for example, registration staff to support nurses or nurses to perform doctors' tasks. As a side-effect, the sense of teamwork and the One-MSP mindset have greatly increased.

Fourthly, a flexible shift scheme is another way of balancing workload. MSP has abolished the two shift system that was not really tailored to the typical sequence of customer arrivals and has developed a more flexible system directly following the weekly and daily demand patterns.

And lastly, in order to avoid having too many staff on the payroll just for covering peak periods MSP has contracted a manpower agency with MSP-approved temp staff, who are brought on board mostly following a long-term plan. Additionally, this agency is even able to provide support on a very short-term basis to cover for unforeseen surge in demand.

Furthermore, MSP continuously apply modern process excellence approaches to streamline the treatment process and unlock hidden potential.

Conclusion

In service functions where demand is less predictable and tasks show more intrinsic variation, workforce planning needs a good understanding of the drivers – the variables – for workforce fluctuation and their impact. Whereas it is not possible to overcome the variation patterns in demand and process completely, a drastic reduction of the gap between demand and supply of workforce is definitely achievable, if Human Resources and Process Stakeholders work closely together. Apart from cost savings, increase in employee motivation and customer satisfaction will be the pay-off.

About the Author

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