Mastering the challenge of capacity management

Meet varying demand while keeping staffing costs under control with flexible scheduling
By Jeff Berg and Arnaud Valeille

Significant demand variability is common in many service environments—most notably in call centers, hospitals, field delivery, and retail operations. Each of these environments faces a daily, weekly, or seasonal struggle to meet customer service expectations at peak times without leaving expensive staff idle during lulls. Managing variable demand can be a source of tension between functions too. For example, account management teams want to ensure their service level agreements are met and will strongly resist attempts by operations managers to reduce staffing levels if they believe them to be threatened. Even the occasional inability to meet service level targets during peak times is stressful for service teams, often leaving them with the false impression that facilities are always understaffed.

While many successful companies take steps to increase frontline efficiency with lean management techniques, a similar opportunity often resides in understanding incoming work and optimizing labor accordingly. This practice is known as workforce management (WFM) and encompasses a range of strategies used to shape the available labor supply, and sometimes the incoming demand, to improve service and minimize idle time. One of the core levers of effective workforce management systems is the use of a broader shift mix to ensure there are enough of the right people in place at the right time at the most efficient cost. New shift structures can take a number of forms, including weekly or seasonal part time work, alternate shift patterns—like fewer, longer days—and staggered shift start times.

New systems can even readjust these shifts and allocate tasks dynamically to get an even better match between supply and demand. Some large retailers, for example, are making use of thermal imaging cameras to monitor the movement of customers in their stores. This technology then alerts managers if customer numbers are significantly higher than forecast, allowing them to pull staff from the shop floor to checkouts before queues begin to emerge.

Overcoming the barriers

There are a number of barriers that stand in the way of the wider adoption of advanced workforce management approaches. Some of these are technical: companies may lack the skills or infrastructure to forecast incoming demand to a level of accuracy suitable for improved shift planning. Others are organizational, as companies may not have

the WFM support resources they need to create and manage complex shift patterns, or they may have labor agreements in place that preclude their use.

In our experience, however, the underlying root cause of much reluctance is one of mind-sets and a misunderstanding of the real power of workforce management. Operations managers may see central scheduling support as taking independence away from the field. Companies frequently assume that the cost of implementing the necessary forecasting and scheduling infrastructure for an effective WFM system will outweigh the benefits they gain from its use. Or they fear that implementation will take too long to give them the short-term impact they require. Moreover, they may worry that new shift practices will be unpopular and disruptive for a large part of their workforce, creating issues with morale or attrition.

Getting more for less

In practice, many of the common barriers to WFM adoption prove to have little basis in fact. Recent advances in data analytics and enterprise IT mean improved demand forecasting systems can be developed and implemented much faster and more cheaply than in the past. One European bank, for example, built a new forecasting system for its customer call centers using a combination of its spreadsheet tools and data drawn from its existing enterprise resource planning system. In less than a month the bank was able to reduce weekly demand forecast error by 40 percent and intra-day error by more than 20 percent. On the basis of this improved forecasting capability, it was able to roll out new shift systems with the potential to improve productivity in its call centres by 30 to 50 percent. Data-driven forecasting systems like this also help companies avoid understandable, but expensive, bias in their workforce planning. Sales teams may have a natural tendency to be over-optimistic in their demand forecasts, for example, leading to overstaffing.

Concerns about human disruption are valid, but can be overcome. Most companies that adopt flexible shift systems find that a significant number of their employees actually prefer the extra flexibility offered by the new approach. Flexible shifts can also become part of an organization's overall performance management system, as senior or better-performing employees can be rewarded with better access to the shifts they want. And over time, flexible working can become part of an organization's offering to new staff, helping to attract those for whom flexibility is a bonus, not a burden. Ultimately, good workforce management means better day-to-day working conditions for all staff, since they will have to deal with fewer impatient, frustrated customers.

Perhaps most significantly, as the Chip Game (see sidebar) vividly demonstrates, even moving a relatively small fraction of the overall workforce to new flexible shifts can have a dramatic effect on overall utilization. Take the case of a large bank. Its call center was consistently struggling to meet demand at its mid-day peak, while its existing shift system left many agents idle during the quieter morning and late afternoon periods. The bank responded with some targeted measures.

The Chip Game

One simple but effective way of demonstrating the true power of workforce management is the Chip Game. Developed by McKinsey, the Chip Game is a physical board game or iPad application that requires players to attempt to match available staffing hours to variable demand at the lowest overall cost. The Chip Game serves as a way to introduce managers to the principles and benefits of workforce management (WFM), and as a tool to help them visualize what a flexible staffing implementation might look like. In the iPad version, the game can be adapted to mirror companies' real demand patterns, in order to accurately estimate the impact of new shift structures in a wide variety of environments from banks to hospitals, retail stores, and more. For more information, contact the authors.

It introduced shift start times staggered over a two-hour window for a third of the workforce. It offered shorter six-hour peak-time shifts to another fifth. And it introduced measures to put back-office staff on front-line phone duty during the highest peaks in demand. The result of these changes was dramatic. The call center's ability to meet its service level targets rose to 90 percent of the time, up from 80 percent, while the overall occupancy level of its agents rose from 60 percent to 80 percent, allowing it to transfer 10 percent of the center's frontline staff to duties elsewhere.

Exhibit 1: Changes to shift lengths and start times for a minority of staff can have a dramatic effect on productivity and service levels

Demand vs. Capacity for Call Center
FTE, call volume per hours of the day

— FTE required (Demand) ⬭ Imbalance
▬ Actual scheduled FTE (Supply) △ Shift starts

From: History of missed service despite 20% overstaffing

Overstaffing

Missed SLA

SLA 80%

6am 8am 10am 12pm 2pm 4pm 6pm

To: 10% improvement in service with 10% cost reduction

SLA 90%

6am 8am 10am 12pm 2pm 4pm 6pm

Balance labor capacity with call demand by:
• Introducing three new shift start times (6:30, 7:30, 8:30am) to ~40% of the workforce
• Offering part time shifts of 4hrs/day to ~30% of the workforce centered around peak demand
• Staffing back-ups for peak hours (12pm–2pm)
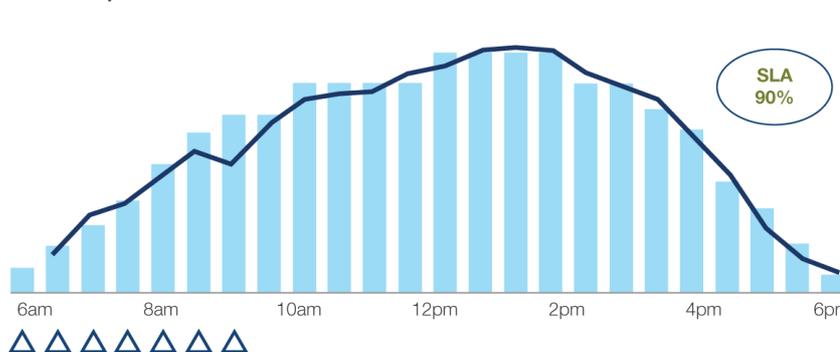
Impact:
• Increase in service level (SLA) by ~10%
• 10% capacity savings by natural attrition and transfer to new accounts
• Agent occupancy increased from ~80% to ~90%

Source: Disguised call center example

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Cost effectively maintaining service levels in environments with highly variable demand will be an on-going challenge for companies in many sectors in the coming years. While outsourcing and lean management can improve the efficiency of the existing workforce, managers need additional tools to meet this challenge. Using workforce management techniques to increase flexibility is a quick, effective lever that they should be more willing to embrace. Even a relatively small amount of increased flexibility, if supported by the right infrastructure and tools, can be an effective way to deliver significant savings without sacrificing service levels or customer satisfaction■

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