



WORKFORCE **SCHEDULING** AND **VOLUME ALLOCATION** IN THE **POSTAL INDUSTRY**

It's well documented that letter volumes for postal companies are in decline, thanks largely to the growth of email, electronic invoicing, online bill paying and so on. This prompts the question of how postal companies remain both competitive and profitable, all while fulfilling their obligations to customers and without pushing up costs.

In simple terms, posts need to be more flexible in a variety of different business areas. Take work practices, for example. Here, it's important to have the right skills in the right place for only as long as is necessary. And although it's neither practical nor desirable to have a 100% flexible workforce, the goal should be a continual optimisation of skills matched to the ebb and flow of throughput.

To achieve this ambition, postal companies need to embrace volume allocation and workforce scheduling. Greater planning is required based on supply and demand, which needs to work in tandem with more flexible contracts and working time agreements. Such models have proven highly successful in the retail and airport environments, where investment in workforce scheduling in line with anticipated demand has led to improved efficiency and cost savings.

Various airports have adopted the capacity planning of human resources in their baggage handling function. Previously there would be 24/7 teams in place regardless of demand. However, by scrutinising baggage trends over a predefined period, it has become possible to implement far more efficient and cost effective working schedules. This has allowed numerous baggage handling operatives to become more competitive and win contracts from airports looking to make savings.

EFFICIENT STAFFING

Many have mistakenly thought that increasing levels of machine automation would be the saviour of the postal industry. However, machines are little more than just metal, and costs do not differ much regardless of whether they are operating or not. In contrast, an employee has to be paid for every minute he or she is working. Sure enough, extra or better machines require less human resources, which in turn equals a reduction in costs, but personnel scheduling is necessary to ensure the machines are staffed efficiently to achieve the maximum possible savings.

Clearly, postal companies will need help implementing methodologies such as workforce scheduling and volume allocation as these are not core competencies. Here it will be necessary to outsource a service provider able to deliver quantitative analysis and to solve specific challenges, typically through software or consulting, or a combination of both.

The aims are relatively simple. In regard to volume allocation, forecasted volumes given at sorting centre level can be reallocated based on the already known scheduled workforce and the potentially available extra workforce, thereby reducing the chances of under- or over-staffing. With respect to personnel capacity planning, the goal is to resolve workforce requirements based on expected and/or reallocated postal volumes, and determine the difference between the required workforce and the staffed workforce.

Clearly there has to be a mechanism, such as suitable software, in place to support effectively executed capacity planning decisions in relation to personnel scheduling, or operational planning as some may refer to it. The software would require a clear view on workforce capacity and legislation, as well as a perspective on both demand and the drivers of demand.



There is of course one clear prerequisite to adopting such a solution. In the first instance, a postal company should prepare its culture and employees for a shift towards intelligent, potentially automated planning. Although this may well represent a change in mind-set, employee buy-in can be garnered by outlining the benefits that it will bring to the organisation in the long term. Software ultimately provides the solution, but if the internal mentality and approach remains unchanged, the software will not be used, at least not convincingly and effectively.

Here, Prime Competence, an independent, knowledgeable and skilled consultancy with proven expertise in the postal sector, can help by proposing a detailed and comprehensive change programme that will help lead the postal company towards successful implementation and adoption of the software as part of an embedded culture change affecting day-to-day operations. The process will start with an assessment of the program goals and desired outcomes. During the transition phase, comprehensive planning tools will be deployed to ensure the programme remains focussed on 'making a difference'.

THE SOFTWARE SOLUTION

Once the ethos of moving towards an automated tomorrow has been imparted and accepted, software implementation can begin. Put simply, workforce scheduling software considers demand-driven and social shift rosters, handling the dynamics of flexible working patterns. In addition to advanced optimization engines, the latest software solutions provide orderly plan boards, real time checks on rules (such as collective labor and rest time regulations), sociological criteria and employee preferences. In addition, time and attendance functionality can be used to support payroll pre-processing (registration of hours worked and calculation of overtime) and holiday entitlement management.

Of course, when trying to introduce any new business strategy, capacity planning and workforce scheduling have to be executed by the right people. However, for the appropriate employee, it is not a difficult task. Yes, it requires time, but if executed properly, the benefits – such as short/long-term flexibility, time savings and cost reductions, along with improved bottom line, customer satisfaction and employee satisfaction – far outweigh the costs, such as the time required by the planner.

To implement strategies such as workforce scheduling and volume allocation, a postal company will need to engage with a suitable software supplier/consultant to first determine the high level needs of the organisation. From there, further analysis and interviews with key personnel will help identify the in-depth requirements. A planned process of data gathering, configuration, pilot operations and roll-out will then follow. Once live, the postal company can manage the software moving forward, or instruct the system supplier accordingly.

Ultimately, no matter whether capacity is high or low, the software will determine the required level and offset it to the current staffing levels. Such is the appeal of this solution that the first postal companies are already beginning to take notice. Setting the pace is PostNL, the Netherlands postal service, which is known for its innovative approach involving the extensive use of technology.

PRIME

QUALITIES

PostNL recognised the need for specialist help in implementing its plans and the task fell to the combined talents of Ortec - experts in capacity and resource planning software – and Prime Competence, a consultancy whose interpretation skills are benefiting the postal sector across the world.

Together, the Ortec and Prime teams are creating a software platform, which when rolled out in 2016, will take data streams from all parts of the business – both administration and production (across several sites) - to create a much bigger performance picture. This live data can then be compared against

trending and historical data to steer business efficiency in real time. At PostNL, flexibility in supply/personnel scheduling is paramount: employees can start and stop working every 15 minutes. The only restriction is that a shift should be at least 3 hours in duration.





BIG DATA

To measure in real time and adjust factors such as workforce scheduling on the fly, capturing and manipulating big data is required. Most posts collect a large amount of data from their day-to-day operations, which is used typically to report what happened in the past. However, knowing what happened yesterday does not prepare a postal service for what happens today, tomorrow or next week. What's needed is real time processing of big data to predict what is likely to occur in the coming hours. Such data can be used to match capacity to demand, and have the right resources in place to deal with that demand at the lowest possible cost.

To achieve this, the data must be turned into information in real time with a predictive ability. Information can be used to provide insight and facilitate action, as well as provide greater efficiency in labour allocation.

Data modelling is a unique service offered by Prime Competence thanks to its expertise within the postal industry and understanding both the commercial and operational impact that postal operators need to consider when finalising their business plans. In short, Prime Competence can identify quick wins, both in terms of internal ef-



ficiencies and regarding the facilitation of new services for clients. The result is a list of priorities that indicate what a postal operator could achieve in terms of cost efficiencies and savings.

Of course, half the battle is extracting the data ready for analysis. Postal services are like many other big organisations in that data is often locked away in proprietary systems. Instead, the way forward when implementing workforce scheduling and volume allocation at organisations such as PostNL, is to base the software on open interface infrastructure. Supplier independency is considered by most in the postal sector to be the assurance for low costs now and in the future. In fact, the key to the success of many projects is deemed to be the open interface of the software platform.

PostNL

LEADS THE WAY

In the Netherlands, PostNL has witnessed letter volume decline at a rate of 8-10% per year for the past 5-7 years, with this estimated to continue moving forwards. The company is also facing stiff competition from a second player in the market. To help address the issue of operating in a declining market with a reduced market share, PostNL wants to automate its human resource planning – building links with volume allocation and capacity planning - and called upon the combined skill set of Ortec and Prime Competence.

Previously, PostNL performed a basic type of volume planning based on customer predictions and historic data, but this was executed manually using a non-integrated spreadsheet system.



The solution being devised by Ortec and Prime Competence will take big data collected from the sorting function for use in workforce scheduling. All software functions will be integrated in a single, open interface, cloud-based system, thus delivering an automated HR function to PostNL.



SIGNIFICANT SAVINGS

So, what are the projected savings? Of course, it is too early to be definitive, but PostNL estimates that labour requirements could well be reduced by 90%. In turn, the projected ROI is just 2½ years.

Of course, payback will vary for each project, and will depend on the baseline time required to implement the software system. Factors include IT/hardware, change management, setting up the right organisation around the software, the time required to define how the processes will work and thus how they should be implemented in the software. Ortec estimates that almost all projects will witness ROI within 3 years maximum. Some payback periods can be as quick as 6 months.

If required, the solution can also be expanded to additional business functions. Take predictive maintenance, for example. By looking at big data it is possible to predict when sorting systems/components are likely to falter or fail. Another typical application might be capacity planning for machine investment. Both Ortec and Prime Competence have experience of modelling these kind of strategic business challenges.