

Degree in Management

Integrated Operations Management

Introduction and Operations Strategy

Case study
Frederic Godé

2013/2014

Case study Frederic Godé:

A day in the life of Frederic Godé, Operations Manager, BonPain:

Frederic Godé is the Operations Manager of one of France's largest bakeries, BonPain, Orleans, which supplies supermarkets throughout Europe with frozen, 'par-baked' (part-baked), French-style bread and patisseries (decorative pastries often incorporating fruit, nuts or jam). After delivery, these are thawed and re-baked in-store, providing delicious aromas and fresh-tasting, traditional-style products to Europe's quality-conscious consumers.

BonPain's largest volume of products comprises a range of baguettes (French sticks), which are made, baked and frozen on three high-volume, specially-built production lines. However, even for baguettes there is a very wide range of recipes and packaging requirements, so these lines have to be set-up for these differences several times per shift. The lower-volume, more complex patisseries and speciality breads are made in batches, and are hand-assembled and finished prior to baking in batch ovens and freezers. The total range of products comprises around 600 stock-keeping units (SKUs), most of which are bulk-packed and stored in BonPain's freezers for up to a maximum of four weeks. There is also a relatively small, flexible kitchen where new products are being carefully developed by experienced chefs, who have a clear understanding of the materials and processes to be used in full-scale production. This facility is an extremely important 'order-winner' when dealing with supermarkets which require a regular supply of attractive and tasty new products.

Frederic Godé recently attended a time management course arranged by the Human Resources department of the large international food manufacturing group which had acquired BonPain one year earlier. Reflecting on this course in the context of the complexity and variety of his daily job, Frederic decided to carry a dictaphone around for a day and record what he actually did. He chose a Wednesday in mid-October, which he considered would be a typical day in his working life. Later, his secretary carefully transcribed the tape as follows...

7:55

Arrived at work, parked, walked to office.

8:00 to 8:15

Checked e-mail which included:

- Productivity report for yesterday's output (obviously well below target!).
- Quality report for last week, unfortunately showing above-average levels of scrap.
- A note from the night-shift plant engineering supervisor, reporting a serious four-hour breakdown during the night on the fastest baguette line. He contends that this was not the result of any lack of maintenance; it had apparently been caused by a failure of the production operatives to stop the machine quickly and correctly when the conveyors were jammed by a major material spillage.
- A note from Warehousing and Dispatch reporting that today's routine deliveries to our largest customer, Hypera (a supermarket group), could not be delivered at the scheduled times because of the production breakdown.

- One from an external equipment supplier, F-Robot, confirming their technical consultant's visit today at 11 :30 to discuss one of the latest automation projects at the plant
- A request from Charles Lamouche, the Marketing Director, for an urgent discussion about production trials for one of the new product introduction projects. Replied, asking if he would be able to come to my office at 15:00.

8:15 to 9:00

Daily first tour of factory with the morning supervisor and the Senior Maintenance Engineer.

- During the tour it was pointed out that one of the three baguette production lines had only just restarted working. It had broken down in the middle of the night due to a bearing failure.
- Spent about 15 minutes in discussion with a group of production operatives who were concerned about our regular requests for extra staff to run the third line at the weekend. Although reluctant to come in, they were persuaded that we did need the extra output to satisfy demand, which had recently grown by around five per cent due to an export order for the UK.
- Noted that the finished baguettes from Line 1 (the oldest line) were showing wide variation in baked colour (but within the control limits) and asked to see the Quality Control charts, but routine notes on these did not highlight any reason for variations. Arranged for Pierre Moulin (the Quality Manager) to investigate root cause and to report back later.
- Was informed that we had run out of prepared apricots yet again, stopping scheduled production of the most popular Danish-style patisserie. Reminded me that I need to discuss this with Purchasing Manager, since this is the third stock-out this week!
- Spotted a guard missing from one of the conveyor drives. Plant Engineer arranging replacement this morning - temporary guard put in place immediately.
- Excessive flour and fat spillage in mixing room. Appears to be caused by carelessness, perhaps lack of training of night-shift operatives. Waste of this type severely erodes our tight profit margins. Will follow this up at meeting.

9:00 to 10:00

Regular scheduled morning meeting with: the three production line supervisors; supervisors from the mixing department, patisserie assembly and baking areas, and freezer warehouse; Pierre Moulin, the Quality Manager; and Monique Dumas, the Production Planning and Control Manager. The normal agenda included an overview of the previous day's production statistics, and of the rolling one-week averages including:

- the total output of each main production line;
- performance against schedule per specific product;
- utilisation and efficiency measures, and graphs showing these over 12 months;
- records of delivery performance: on-time delivery of ordered quantities;
- quality statistics: scrap levels for products and packaging.

Supervisors provided explanations of problems, and occasionally some suggestions on their resolution and prevention. However, many small improvements were increasingly being undertaken by kaizen (continuous improvement) teams. Generally, these were done on a day-to-day basis, without great supervisor intervention.

The meeting then continued by looking at forecast requirements for the next week and for the next three months. Monique pointed out that the market forecast suggested growth in bread sales of about two per cent per month, but only very slight growth for patisseries. She was concerned that it would be necessary to arrange increased levels of overtime to cover this extra demand and that there might be resistance from the operators, since they had already been working excessive levels of overtime over the last few months. It was certainly the time to consider purchasing a fourth baguette line!

Pierre was concerned that this pressure on output could lead to further deterioration in quality performance, which could not only create customer complaints, but might also lead to rising levels of scrap and waste. I also know that Monique is really getting stressed by the increasing prospect of being unable to meet a big customer's delivery schedule. Many supermarkets are trying to reduce their frozen inventory to only one or two days' demand, so if we fail to deliver, stores could be out of bread and then there will be big trouble! It's not made any easier by the pattern of consumer demand - up to twice as much bread and patisseries are sold in supermarkets on Fridays and Saturdays than on any other shopping day. We must address these issues when preparing our next operations strategy report.

I brought the team's attention to the apparently increasing levels of spilt materials (on the floor) observed on the morning tour. They agreed that a team would be formed to look at underlying causes of such waste.

10:00 to 11:30

Mostly alone in my office. I wanted to begin looking at the detail of proposals to automate the packing lines. If we make the right choice, it should be possible to eliminate two people per line by the robotisation of final packing. However, the equipment to do this is very expensive, with the best solutions seeming to be tailor-made for specific types of bread. This would therefore limit the future flexibility of this equipment. However, the project looked promising in terms of my calculations of the payback period, and I was therefore looking forward to the visit of our preferred supplier.

Some of this time spent reviewing Monique's calculations of the future capacity requirements of the plant. Use of overtime to provide extra capacity can only continue for a matter of months before that alone will not provide the solution. It is going to be necessary to invest in another line sooner rather than later if we are to avoid delivery problems in the coming spring. I should discuss the market forecast by volume and types with the Marketing Director, so I rang his secretary and made an appointment to talk with him this afternoon.

There were four phone calls during this period:

- Packaging supplier to discuss quality problem with one size of folding cardboard cases supplied in September. Agreed compensation/replacements and process changes to ensure non-recurrence.
- Group's IT consultant wanted to arrange a meeting with the Production team concerning implementation of new Materials Requirement Planning (MRP) system within the Enterprise Resource Planning (ERP) project. This would take over inventory control and placing of call-off orders currently done by two clerks in the Planning and Control Department.

- Discussion with Charles Lamouche about an opportunity to supply premium quality baguettes to a major sandwich/coffee bar chain. To win this order would require new process controls for bread quality, since the texture and general quality specification is known to be exceptionally demanding for this customer. It expects suppliers to use statistical process control (SPC) for several variables (weight, dimensions, moisture content) and attributes (colour, appearance, crustiness). This is much more demanding than the specification of any other customer.
- Message from Sales to expect a call from Sophie Chevalier, the Purchasing Director of Hypera, who wanted assurances directly from me that today's delivery problems would never reoccur. I have met her on several occasions when she first agreed to do business with us; she and her team had thoroughly inspected our facilities and quality control systems. I am not looking forward to her call!

11:30 to 12:30

Meeting with technical representatives of F-Robot, along with our Factory Engineer and Method Study Engineer. My main concern was to understand the flexibility of the proposed robot packers. There appears to be a choice between two types: high speed, specially-configured machines which can easily keep up with any future output speed of the improved standard baguette fines; and slower machines which are easy to adapt for different shapes and sizes of bread and even patisseries. The representatives also showed us information on state-of-the-art flexible equipment being developed for assembly of complex food products like patisseries.

We will clearly have to evaluate all these options on the basis of what return on capital investment could be achieved. However; there are also operations' issues to be considered in terms of capacity, flexibility, reliability and ease of maintenance, spare parts inventory, quality (will they be gentle enough to not cause damage? - trials will have to be conducted) and training of operators and maintenance staff.

12:30 to 13:00

Lunch in company restaurant. Sat with a group of supervisors from the Patisserie Production Department. Although generally very friendly and relaxed, I noted that they seemed to want to move the conversation towards the *kaizen* activities taking place in their department. I suggested that two of them come to my office immediately after lunch!

13:00 to 13:40

Continued discussion on *kaizen*. The supervisors were obviously still under the impression that this initiative was undermining their management role in the department since operatives were analysing problems, assessing solutions and implementing them with very little input from the supervisors. They were concerned that the operatives would not need supervision if this continued! I assured them that this was not the case, but that their role would gradually change and that their continued involvement and attention to detail was critical to the success of the department. (I must ensure that I sit down with Personnel to work out the future role and training needs of supervisors.) One of them was clearly under the impression that *kaizen* was simply a new version of total quality management - and that had not been a total success when we attempted it five years ago!

13:40 to 15:00

Another tour of the factory. Spent most of this time looking at SPC charts in each department because there was some evidence that these were not being used correctly. We may have to undertake some more training in this area if we are to get the full benefits of SPC.

Then spent some time with the Plant Engineer looking at possible locations for the installation of packing robots. The current packing area is badly laid out and needs reconfiguration, so I hope we can combine the installation of new equipment with a redesign of this area of the factory.

Finally, a short time looking at the freezer room, where we must consider capacity expansion. The increasing range and volume of product has recently led to a shortage of storage space. Also, if some of our large customers are moving towards Just-In-time (JIT) deliveries, it may be necessary for us to support this with slightly increased inventory levels. The time has come for us to do a more detailed analysis of inventory, and if we leave this too late, we may end up having to rent more expensive storage space at external deep-freeze warehouses.

On the way back to the office, passed the training room where a *kaizen* team was conducting a brainstorming session. Did not interrupt this.

15:00 to 15:45

Scheduled meeting with Charles Lamouche, Marketing Director, and Sara Lepont, Product Development Manager, concerning development of a new range of minipatisseries. The concept is to supply products of about a third of the normal size, which can be used at parties and receptions. Market research indicates a big potential growth in this type of 'snacking'. However, these products will be significantly more difficult to make on our existing equipment and will require the development of new recipes and packaging which would together reduce the drying-out of the products during the freezing stages. Although the recipes have proved successful in the trial kitchens, the time had come for full-scale production trials within the factory; most of the meeting was spent agreeing an outline schedule for this work. I reported on the capital equipment requirements for this project.

15:45 to 17:00

Began writing my monthly report for the monthly Board meeting. This summarises the production statistics for the previous month, and requires an explanation for any significant shortfall. The main problems reported included: lower than budgeted levels of productivity; and material usage variances which indicate an above-average level of waste and scrap. I reported on the actions being taken to improve process control. I also reported that the decline in productivity was largely caused by last-minute schedule changes which were outside the control of production management.

The next section included details of capital requirements for new equipment needed over the next two years. Many of these items had already been included in the main capital budget, but the need for some new items had arisen as a result of changes in capacity requirements and unforeseen new product developments.

I finally reported on each of the new product development projects for which I was responsible, including a set of Gantt charts showing progress. For each project there was a short explanation of the successes to date, and the main problems yet to be overcome.

Several phone calls during this period:

- Report from the Quality Manager that the variation in colour of baguettes on Line 1 had now been traced to a faulty burner control in the main oven. The plant maintenance team was preparing to replace the failed component during the scheduled weekend shutdown of this line.

- Report from the production supervisors in each department on output against daily target. Each section was on-schedule at this stage in the day. Good!
- Purchasing advised me that there was a potential delivery problem with important packaging from one of our main suppliers. They had had a serious fire in one of their plants, and were endeavouring to switch production to another. They assured us that everything was being done to ensure continuing supply. I phoned Monique to alert her to this situation, and asked her to continue to liaise with Purchasing.
- The expected call from Sophie Chevalier, complaining about today's late delivery to Hypera. Not a pleasant call, so I will not record the details here! The conclusion was that she will be sending an audit team to look at our planning and control procedures, and the plant maintenance systems. She is seeking assurance that these always give priority to production for Hypera. She also wants to know what we are doing about preventative maintenance (and in particular condition monitoring) so we will have to give that some attention before her visit!

17:00 to 18:00

Final plant tour. This afternoon I spent most of my time in the patisserie production area. Everything seemed to be going well, but there was the usual daily build-up of stock awaiting transfer to the freezer room. There always seems to be a capacity imbalance in this department. For now, the bottleneck is clearly caused by the availability of forklift trucks and drivers.

There are some material flow problems in this area which will need addressing before output volumes increase. I must arrange a meeting with the Industrial Engineer and production supervisors to discuss the issues and potential solutions. Because of the wide range of products, it is unlikely that we will be able to automate many of the processes, but some simple solutions could help to increase productivity.

I am also concerned about the relatively small batch sizes made in this area. The last time we calculated economic batch quantities for patisseries was about two years ago. Since then demand has increased significantly, so it may be possible to *increase* batch quantities, which would give us greater capacity because of the reduction in the number of set-ups. We have also recently done some work on reducing set-up time, which will also have an effect on economic batch quantities.

In general, there is a high degree of specialisation in this area. Many of the operators do the same job all day, every day. I know that the Human Resource Manager is concerned that this may lead to repetitive strain injury (RSI), so it is appropriate that we should look to more job rotation and enlargement. This should give more variety in individual operators' tasks, reducing the risks of RSI. This will be included as an important topic at our next departmental meeting.

18:00 to 18:10

Final check of production performance for today. Everything seems to be going well! Checked e-mail - only one significant new message, from the Operations Director. He is arranging a meeting with all his managers to begin work on the annual strategic review. This looks like being a big task ahead for me and the production team.

18:10

End of day, thank goodness. It's really amazing to see where my time goes! What a range of different things I seem to have been involved in today. But really, it is like that every day.

End of taped record!

Questions

- 1) Which are the order qualifiers and order winners of BonPain?
- 2) Which different production processes are being used by BonPain? Justify.
- 3) Analyse the many things that Frederic does during his typical day. You should group these in terms of the five categories below:
 - a. Strategic
 - b. Design
 - c. Planning and control
 - d. Improvement
 - e. Other (specify)
- 4) Identify the capacity problem the company is facing right now. Which solutions should be considered?
- 5) Which are the functions of an Operations Manager?
- 6) In what ways can Frederic's operations contribute to the competitive advantage of the company?
- 7) Assess the approximate proportions of Frederic's time that is spent on long-term and on short-term issues. Do you think this is typical of operations managers in other industries (for example, banking, leisure, automotive component manufacture)?