You may recall that by the end of the first article in this series on project management, published in September’s FM app, you had formed a strong plan to help you prepare for your exams and were poised to start the execution stage of your project to pass them.

This article is designed to help you move through the remaining three stages of the project management life-cycle: executing, controlling and closing. As you can see from the life-cycle diagram on the next page, the execution stage (where you deliver against the project plan) and the controlling stage (where you keep track of progress and carry out remedial work if the project is not going to plan) are closely linked. In some cases, you may need to go right back to the planning stage and produce a revised plan for the rest of the project. Let’s now see how yours is working out.

**Executing and controlling**

There are clearly several possibilities as to how your project may be progressing and, as with all projects, the situation will be partly down to circumstances that are under your control and others that you cannot influence. It is possible that your preparations have gone exactly to plan so far and you are right on course for success. If so, congratulations – let’s hope it stays that way. But even the best-planned projects can go off track, so I’m going to assume that it hasn’t all been perfect and that you have encountered a problem somewhere down the line. It might be relatively minor, such as missing a study session – a setback from which you should be able to recover over the course of your project. Or it could be something more drastic, such as the discovery that you’re soon to be made redundant. But let’s assume that the severity of your problem has fallen somewhere in between these two extremes.

In the first article I used an example Gantt chart to illustrate your 10-week project. Let’s assume that you were ill for the whole of week six. Because of this, you missed two days of a revision course with your learning provider, as well as several self-study sessions that you...
had planned. This has put you significantly behind schedule and you have also missed out on valuable classroom time with your tutor.

One of the benefits of using the Gantt chart as a project management tool is that you can plot planned and actual activity on it, so that you can see clearly how the project is progressing at any point. The revised Gantt chart below reflects the scenario I have just described, as at the end of week six. You can see the planned and actual timings for the first six weeks, but only the original planned timings for weeks seven to 10, as we haven’t yet decided what remedial action to take.

The first thing to do, as should be the case when any project falls behind schedule, is to stay calm. What’s happened has happened and you can’t change that. Worrying about what has already occurred will only get you stressed and cause you to lose focus. What you can do, though, is turn this into positive energy and look at the options available for getting your project back on track. And we’re going to consider these options in the context of the iron triangle of time, cost and quality that I discussed in the first article.

Because your project has a fixed end date – ie, that of the exam, you cannot simply add a week on to the end of it. But your project plan should not have been so tightly scheduled that you needed to spend every waking hour studying. So it’s likely that you can “borrow” some time from other non-project activities. For instance, it may be that you were going to give yourself a treat by taking the weekend of week eight off, to spend time with friends. Perhaps you can consider postponing this for a couple of weeks – something to look forward to after you have taken the exam, perhaps.

Alternatively, instead of fitting in a couple of full days of extra work, maybe you could add an hour on to several individual study sessions and still have your weekend off. However you decide to make up the time, you need to ensure that you don’t overwork yourself and become tired, because this would reduce the quality of your studies.

If you’re simply finding some extra time for your studies, it’s unlikely to add to the cost of your project. But another way to reduce the impact of losing week six may be to book an extra revision session with a learning provider if one is available. This is likely to incur an cost, but it could be a quicker method of making up the lost time than merely studying on your own. It is a trade-off between time and cost.

When it comes to quality, I have already mentioned that you should take care not to reduce the effectiveness of your studies by adding too many extra hours to your sessions. But it is possible to obtain more quality from fewer hours. For instance, make doubly sure that you won’t be interrupted during your study sessions. This should enable you to stay really focused on the job at hand. Another tactic is to ensure that you’re completely up to date with your non-project tasks, so that you aren’t thinking about what household chores you still need to do, say, while you’re trying to focus on your studies.

Whatever actions you decide to take, you will need to revise your plan for the reminder of the project to reflect these changes. It may well be useful to draw...
up a revised Gantt chart showing your replanned activities and schedule for weeks seven up to 10.

The closing stage
The main activities that take place at the final stage of a project are completion and a post-completion audit. Both are important in your scenario.

The completion phase usually involves the work that’s required to pass the project’s final “deliverable” (project management jargon for “product”) from the project team over to the operational team. In this case, you’re responsible for both. This means that you’re carrying out the final steps to prepare yourself for exam day so that you’re ready for the final deliverable of passing the exam.

The key tasks that come into consideration at this point are as follows:
• Ensuring that you have done all your final revision. Have you done everything you can to ensure that you are sufficiently well equipped to pass the exam?
• Make a preparatory journey to the exam centre if you are using it for the first time, or check whether there have been any changes since the previous time you visited it that might affect your transport arrangements – eg, roadworks or alterations to the railway timetable.
• Check that you have everything you need to take with you on exam day, such as pens (black or blue), including spares, calculator and ruler (depending upon the exam), a bottle of water, a copy of your notification from CIMA confirming your exam entry, photo ID etc.
• Put all of your study materials somewhere safe. After all of your meticulous preparations, you should pass the exam, but don’t tempt fate by throwing everything away just yet. These notes are also likely to be of use as you prepare for future exams.
• Reflect back on the project to see what went well and what didn’t go as planned, so that you can learn vital lessons for your next project – in this case, preparing for your next exam.

Other key tasks, if this were a workplace project, would include obtaining written approval from various stakeholders, writing a report that refers back to the feasibility study and obtaining feedback on how successful the project has been at achieving its objectives.

Although it is vital that you prepare yourself for exam day, this is not yet the end of your project. Before you finally bring proceedings to a close, it is important to conduct a post-completion audit.

Key steps here include the following:
• Reviewing your exam results compared with the outcome you were expecting. If you achieved the required level of quality, was it a comfortable pass? If you failed, how close were you to achieving the pass mark?
• Reviewing the budget. If you overspent or underspent, what were the reasons?
• Reviewing the time taken to deliver your project. Did you meet all of your target dates. If not, why not?

Considering all these factors will help you to improve your chances of success in future projects. In a workplace project, a formal post-completion audit report would cover all the factors listed above while also analysing the effectiveness of any particular project management methods that have been used. It would include input from end users and members of the project team, too.

I hope that this series will enable you to apply your project management knowledge more effectively when sitting E2 – and also to prepare yourself better for any exam. The key point to remember is that, while knowledge is important, your ability to apply it effectively in an exam will have a big impact on whether you pass or fail, especially at Management level and above.

Paul Wyatt is a training and management consultant at Wyatt Business Solutions.
This second and final article in a series on cost management explains the philosophy behind lean production and examines the potential benefits – and risks – for finance departments planning to adopt it

By Ian Herbert FCMA, CGMA

Lean thinking has spread from the factory floor to the office in recent years – especially with regard to financial processes. But, wherever lean management methods are applied, the human factor comes into play. And, as is so often the case in large organisations, they aren’t that easy to implement.

Traditionally, employees have not had to think in a lean way, sometimes for good reasons. For example, holding significant buffer stocks to manage the risk of a plant breakdown, say, increases working capital and is therefore “wasteful”, but it’s obviously necessary in order to keep customers supplied.

In the simplest terms, the lean approach to cost reduction is to do only what needs to be done – and only when the need arises. Put like that, it would appear to be the simple application of common sense. In practice, though, it’s not simple. But, while there have been many implementation failures in a manufacturing context, there have also been many lean successes – and the approach is now being applied to finance activities, especially in shared-service centres.

A lean management programme can transform a business by promoting sustainable behavioural change to achieve continuous improvements, rather than a one-off refinement, in areas such as working capital and cost reduction, while also focusing on offering better value to customers.

Adopting lean management requires an organisation to complete three main tasks: alter how people think; change processes in a sensible way that won’t damage either their dependent activities or the value of the end product or service to the customers; and accept that lean management is only one element of a broader approach. In other words, it needs to be seen as a long-term holistic initiative, not a quick fix.

The lean philosophy is based on five main principles:
- Specify what constitutes value in the customers’ eyes.
- Identify your "value stream" and eliminate all waste in it.
- Customers should “pull” the workflow.
- Create a culture of continuous improvement towards perfection.
- Involve and engage all employees.

This approach was developed and refined in Japan – most notably by Toyota – under conditions of severe austerity after the second world war. Total-quality management and just-in-time manufacturing are arguably distinct techniques, yet both are inherent to a lean orientation. Western firms have been trying to assimilate lean thinking since the 1980s, with mixed results.

If a company is to embrace the lean management philosophy successfully and then ensure that its operations remain lean, it needs to adopt the following doctrine:
- Do the right work. Meet the customers’ needs at the lowest possible cost by concentrating only on those activities that actually add value.
- Do the work right. Once new procedures are established, they have to be followed. Employees need the right skills for this, together with strong leadership at all levels to ensure that they know what’s expected of them.
- Manage the right way. The whole organisation needs to be aligned with its business model and support the effort to deliver what the customers need. Moreover, if a failure occurs, then everyone must commit to finding the root cause and coming up with a lasting solution.

You could be forgiven for thinking that lean management is simply the combination of several cost reduction ideas. But its philosophy is different in that it seeks to eliminate activities that don’t add value, while not compromising the total value added. In that sense it’s an attack on waste. It seeks to change the way in which an organisation’s entire value stream is viewed, both overall and in detail. The lean approach encourages everyone to use their knowledge and should have a positive motivational effect. It makes people consider difficult questions, too – for example: why are we continuing with that process? What would happen if we didn’t do it? When can we stop doing it?

Often the approach an organisation takes depends on the start and end...
What could a finance function achieve from adopting a lean approach?

<table>
<thead>
<tr>
<th>Lean objective</th>
<th>Action</th>
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<tbody>
<tr>
<td>Eliminate non-value-adding work.</td>
<td>Stop producing reports that are no longer required. Reduce spreadsheet usage by getting the right enterprise resource planning system.</td>
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<tr>
<td>Reduce work in progress and backlogs.</td>
<td>Use real-time performance metrics on visual display boards to monitor the flow of work and bear down on backlogs.</td>
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<tr>
<td>Reduce the complexity of processes.</td>
<td>Investigate system variations with a view to standardising procedures and protocols.</td>
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<tr>
<td>Identify and implement customer-led service improvements.</td>
<td>Talk to the users of accounting information to find out what they need from the finance department and whether they have any problems with what it currently provides.</td>
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<tr>
<td>Eliminate unnecessary checks and inconsistent controls.</td>
<td>End the practice of having advance personal expense approvals and replace this with a more rounded post-hoc managerial review.</td>
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<tr>
<td>Minimise processing errors by taking a “right first time” approach.</td>
<td>Improve training for members of the finance team and have zero tolerance for letting errors through.</td>
</tr>
<tr>
<td>Reduce the time it takes to close the books from weeks to days.</td>
<td>Analyse each activity in terms of its value to the end result and its importance to the overall process of producing the accounts.</td>
</tr>
<tr>
<td>Produce cleaner information faster.</td>
<td>Establish a working culture that’s focused on producing a “single version of the truth” and eliminating shadow systems.</td>
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points and the extent to which a holistic view can be taken of an entire process. Two alternative approaches are business process re-engineering (BPR) and value-for-money (VFM) auditing. BPR eliminates waste by simplifying tasks and streamlining processes: if an activity cannot be eliminated by redesign or automation, it should be simplified to enable less skilled workers to perform it. As well as eliminating cost, BPR seeks to improve throughput to enhance the organisation’s responsiveness to its customers’ needs and thereby reduce the working capital cycle. BPR has its origins in operations management and represents a scientific approach to doing things more quickly and cheaply in a systematic programme of change, but it seeks mainly to achieve existing levels of output more efficiently.

The UK’s National Audit Office uses three criteria to assess the VFM achieved by public spending – ie, the optimal use of resources to achieve the government’s intended outcomes when these are highly subjective and vary across a wide stakeholder constituency. The criteria are as follows:

- **Economy** – ie, spending less. This criterion concerns the cost of resources used (inputs).
- **Efficiency** – ie, spending well. This concerns the relationship between outputs and the resources used to produce them.
- **Effectiveness** – ie, spending wisely. This concerns the extent to which objectives are achieved and the relationship between the actual and intended results of a service (outcomes).

A number of companies are successfully combining Six Sigma with the lean approach. Six Sigma is designed to reduce the variability in process outcomes, literally down to a confidence level of six standard deviations of error. Its practitioners combine a strong statistical orientation to measuring and reducing process variability with the intense focus of martial-arts experts. Indeed, Six Sigma “champions” are graded by belt colour and see themselves as fighters in a war on waste. In many ways, the lean approach and Six Sigma are complementary. But applying the latter on its own could require a lot of effort to optimise processes that might be eliminated under a lean regime.

**Lean opportunities in finance**

Leading organisations are using lean thinking to cut their costs significantly without having to invest in large-scale IT upgrades. But applying the lean approach to the finance function can produce benefits that go beyond cost reduction, as it can help to improve both customer and employee engagement, while accelerating key processes – eg, reducing the time taken to provide information to decision-makers (see table, above). It can also improve the effectiveness of cash collection routines, supporting liquidity and reducing the risk of bad debts.

In any finance department there are likely to be a number of workarounds – eg, the manual entry of data – that arise when normal processes cannot cope with new demands. Such unsophisticated solutions are likely to generate errors that will in turn require extra work to correct them. In his book *Freedom from Command and Control* (Vanguard Press, 2005) John Seddon coined the term “failure demand”, noting the tendency of managers to infer that an increase in activity means an increase in productivity.

There are three compelling reasons why a finance department should focus on getting lean:

- Lean initiatives tend not to necessitate significant investments in technology, yet they promise cost reductions of between 15 per cent and 30 per cent.
- The lean approach encourages the people doing the work to seek out opportunities for improvement, thereby fostering a real sense of personal responsibility for the solution.
- It encourages financial managers to see things through their customers’ eyes. Indeed, it could be argued that professional functions such as finance have traditionally been somewhat self-serving as “the experts who know best” – and that a more customer-focused approach, based on outcomes rather than inputs, is long overdue.
The adoption of lean practices in finance not as straightforward as it may sound, of course. There is always a possibility that bearing down on any one aspect of a value chain will have an unintended negative impact in another area. For instance, saving 20 minutes of junior clerical time may mean that an operations executive has to do an extra 20 minutes of paperwork further down the line. This is often referred to in corporate circles as squeezing the balloon: one area gets smaller, but the air (work) has to go somewhere else and another part expands – perhaps until it bursts. The lean approach therefore needs to be applied with care and a holistic oversight.

As a further example, the elimination of a seemingly needless verification routine might be challenged by the auditors at the end of the year and perhaps require a significant reworking of procedures back throughout the year. While a cost-benefit calculation would have supported the case for dropping those checks at an operational level, that decision looks quite different from a corporate governance perspective that’s more concerned with mitigating risk.

The closer that lean thinking gets to the customer, the greater the risk of misalignment with the business model. Take inventory, for example: the lean philosophy always sees inventory as a bad thing. If production can be reorganised and “pulled” by customers in a just-in-time manner, they can order the exact specification they want and cycle times, and hence working capital, can be reduced to negligible levels. Computer manufacturer Dell has been a notable exponent of this approach. In the late 1990s it based a pioneering new business model on enabling customers to configure the exact PC specification they wanted and order it online. But it should be remembered that other companies will probably thrive on different business models in the same commercial space. For example, while holding a lot of inventory will be more costly, the advantage to customers is that they have a range of product choices that they can go and see, try out and take home with them. That instant service could command a significant price premium.

A lean approach has to maintain alignment across the organisation, not only in the design phase but also through implementation. The boundaries between interdependent activities need to be managed, possibly with buffer inventory or surplus capacity at changeover points or process bottlenecks.

Eliminating waste today might mean compromising tomorrow’s flexibility. For instance, could a truly lean finance function cope with a strategic change of direction – a significant acquisition, say?

Despite the dramatic improvements that lean thinking has achieved on the factory floor, many companies fail to obtain corresponding benefits in their support functions. The big difference between these two contexts is that, arguably, greater human judgement is needed to deal with task variations in a support function than that required in a manufacturing operation. For instance, in matching up a process order with a “goods received” note for 10,000 kg of cement, a human may say that the order is effectively complete even if only 9,990 kg was actually delivered. In other words, a human would understand that cement deliveries are not precise affairs. In financial terms, a human may say that the order is fulfilled and hence working capital, can be obtained corresponding benefits in their support functions. The big difference between these two contexts is that, arguably, greater human judgement is needed to deal with task variations in a support function than that required in a manufacturing operation. For instance, in matching up a process order with a “goods received” note for 10,000 kg of cement, a human may say that the order is not complete even if only 9,990 kg was actually delivered. In other words, a human would understand that cement deliveries are not precise affairs. In financial terms, a human may say that the order is fulfilled and hence working capital, can be obtained corresponding benefits in their support functions. The big difference between these two contexts is that, arguably, greater human judgement is needed to deal with task variations in a support function than that required in a manufacturing operation. For instance, in matching up a process order with a “goods received” note for 10,000 kg of cement, a human may say that the order is completed even if only 9,990 kg was actually delivered. In other words, a human would understand that cement deliveries are not precise affairs. In financial terms, a human may say that the order is completed even if only 9,990 kg was actually delivered.
Exam notice
Visit www.cimaglobal.com regularly for updates

September’s T4 on PC and ‘extra’ exams
The results of these exams were released on 19 September.

Script and administrative review services
A script review service is available for September’s three Strategic level exams and T4 part B. The service will be available to you only if you scored between 40 and 49 marks (between 20 and 24 credits in T4 part B) in the exam for which you want a script review.

An administrative review service is also available for all of September’s Operational, Management and Strategic level papers.

Further details about these review services and how to apply for them can be found in the “After the exams” section at www.cimaglobal.com/exams.

November exams
These exams will be held from 18 to 20 November. The deadline for entries has passed, so applications will be accepted only in exceptional circumstances.

Admission advice letters
Your admission advice will be available online approximately one month before November’s exams. You must log into your “My CIMA” account and print this out. The admission advice shows the exact details of your exam centre, as well as the exams for which you have entered.

You must take the admission advice with you to the exams and keep it safely afterwards, because it contains your candidate number(s).

When you download your admission advice, you must also download and read the exam rules and regulations from CIMA’s website.

Going to the exams
You will need to take another means of identification to the exam hall as well as your admission advice. This ID document – eg, a passport or driving licence – must include your name, signature and photograph.

Cancellations and changes
CIMA does not accept cancellations and will not refund fees. To change papers or exam centres, you will need to email exam.changes@cimaglobal.com and pay the relevant fee.

Pre-seen material for papers at Strategic level and T4 part B
The pre-seen material for November’s T4 part B case study exam is available to download from www.cimaglobal.com/t4preseen now. An analysis of the material is also available.

The pre-seen material for November’s E3, F3 and P3 exams will be available to download in the week starting 6 October.

It’s your responsibility to download this material and familiarise yourself with it. A “clean” copy of the pre-seen material and further unseen material will be provided in the exams. You cannot take any notes with you into the exam hall.

Live ask-a-tutor sessions
Look out for information about live ask-a-tutor sessions for all subjects above Certificate level in the run-up to the November exams. The sessions will be held via Facebook. Follow the institute’s page on Facebook (www.facebook.com/cimaglobal) for updates.

Online study-support resources
Past exam papers and model answers are available to download free from the “Exam preparation” section of CIMA’s website. Check past issues of Velocity (www.cimaglobal.com/velocity) for more model answers.

Post-exam guides for each subject above Certificate level will become available three to four months after the exams. These are essential reading for unsuccessful candidates and those studying new subjects. They contain:
• Every exam question.
• The rationale for each question.
• A suggested approach to answering each question.
• The outline marking scheme.
• The examiners’ comments.

Visit www.cimaglobal.com/students/exam-preparation to access all of CIMA’s free online study-support resources.

Computer-based assessments at Certificate level
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Online practice tests at Certificate level
Free online practice tests are available for each Certificate level subject on CIMA’s website at www.cimaglobal.com/students/exam-preparation/certificate.

You can gain access to the full set of practice questions in both “practice” mode and “timed assessment” mode through CIMA Aptitude, which is available now at a discounted rate. For further details, visit www.cimastudy.com/coursesCIMA_aptitude.php.

CIMAsphere
Visit the institute’s online community at www.cimaglobal.com/sphere, where you can ask questions, share information and seek expertise and support among fellow students, CIMA members and alumni. You can also read useful blogs on studying and the exams.

Queries
Visit www.cimaglobal.com/exams to see whether your question is answered there, or get in touch with CIMA Contact (cima.contact@cimaglobal.com) or your local office (see panel, page 53).

Code of ethics CIMA members and students are required to comply with the CIMA code of ethics. Ensure that you are familiar with the code and how to apply it.

Further resources are available at www.cimaglobal.com/ethics. Also see this month’s Hot Potato, page 10.