Cases in Operations Management

The third edition of this highly successful case book has been expanded and updated to reflect the increasing reliance upon comprehensive case material in the teaching of operations management. The text begins with an introduction to analysing operations management cases. Each of the subsequent parts deals with a key area of operations management and begins with an expanded introduction, allowing the book to serve as a stand-alone text for introductory operations management courses.

Features:
• Structure of the case book reflects that of the companion text, Operations Management, third edition, by Slack, Chambers and Johnston
• Contains over 50 cases. Includes coverage of new areas such as: operations strategy, interactive design, simultaneous engineering, supply chain reengineering, performance measurement, and TPM
• Includes short, one and two page, cases
• There is a Further Reading section in each part and every case study contains a Questions section
• The book is supported by an Instructor’s Manual

The author team
Robert Johnston is Professor of Operations Management, Warwick Business School, University of Warwick.
Stuart Chambers is Lecturer in Operations Management, Warwick Business School, University of Warwick.
Christine Harland is Professor of Supply Strategy, Centre for Research in Strategic Purchasing & Supply, School of Management, University of Bath.
Alan Harrison is Professor of Operations and Logistics and Director of Research, Cranfield Centre for Logistics & Transportation, Cranfield School of Management, Cranfield University.
Nigel Slack is Professor of Operations Strategy, Warwick Business School, University of Warwick.
Cases in Operations Management
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THIRD EDITION

Cases in Operations Management

Robert Johnston
Warwick Business School, University of Warwick

Stuart Chambers
Warwick Business School, University of Warwick

Christine Harland
School of Management, University of Bath

Alan Harrison
Cranfield School of Management, Cranfield University

Nigel Slack
Warwick Business School, University of Warwick
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Contributors

Authors

Robert Johnston  Professor of Operations Management, Warwick Business School, University of Warwick
Stuart Chambers  Principal Teaching Fellow in Operations Management, Warwick Business School, University of Warwick
Christine Harland  Professor of Supply Strategy and Director of the Centre for Research in Strategic Purchasing and Supply, School of Management, University of Bath
Alan Harrison  Professor of Operations and Logistics and Director of Research, Cranfield Centre for Logistics and Transportation, Cranfield School of Management, Cranfield University
Nigel Slack  Professor of Operations Strategy, Warwick Business School, University of Warwick

Associate contributors

Adam Bates  Strategic Development Executive, British Tourist Authority
Hilary Bates  Research Fellow, Warwick Business School, UK
Alan Betts  Partner Bedford Falls Learning, UK
Adrie Beulens  Professor of Information Systems and Computer Science, Wageningen University, The Netherlands
John Bicheno  Reader in Operations Management, University of Buckingham
Arnaldo Camuffo  Professor, Department of Business Economics and Management, Ca' Foscari University of Venice, Italy
Paul Chapman  Senior Research Fellow, Cranfield Centre for Logistics and Transportation, Cranfield School of Management, Cranfield University
Jaques Colin  Professor and Director of the CretLog (Centre for Research on Transport and Logistics), Aix en Provence
Jim Crew  Managing Director, Eurocamp Travel Ltd
Carole Driver  Senior Lecturer in Operations Management, Plymouth University Business School
Alan Fowler  Reader, School of Management, University of Newcastle on Tyne, UK
Andrew Greasley  Lecturer in Operations Management, Aston Business School, UK
Tammy Helander  Independent Consultant
Terry Hunt  National Director/Chief Executive NHS Supplies 1991–2000
Eric Jackson  Director of Operations, NHS Purchasing and Supply Agency
Marie  Doctoral Fellow, Cranfield Centre for Logistics and Transportation, Cranfield School of Management, Cranfield University
Keith Moreton  Senior Lecturer in Operations Management, Staffordshire University, UK
Sara Mountney  Research Associate, Warwick Business School
Jane Pavitt  Research Fellow, Cranfield Centre for Logistics and Transportation, Cranfield School of Management, Cranfield University
Mark Robinson  Director, Wates Estates Agency Services, London
Pietro Romano  Lecturer in Supply Chain Management, Department of Management and Engineering, University of Padova, Italy
Colin Samways  Marketing Manager, Cadbury World
Kevan Scholes  Principal Partner of Scholes Associates and Visiting Professor of Strategic Management and formerly Director of Sheffield Business School, UK
Roxanne Sutton  Principal Advisor, Office of Public Services Reform, Cabinet Office
Vinod Thayil  Logistics Business Analyst, Finnforest Corp.
Jack van der Vorst  Assistant Professor of Logistics and Supply Chain Management, Department of Management Research, Wageningen University, The Netherlands
Stephan van Dijk  Researcher, Social Sciences Department, Wageningen University, The Netherlands
Remko van Hoek  Professor of Supply Chain Management, Cranfield Centre for Logistics and Transportation, Cranfield School of Management, Cranfield University
Andrea Vinelli  Professor, Department of Management and Engineering, University of Padova, Italy
Adrian Watt  Senior Lecturer in Operations Management, University of West England, UK
Graham Whittington  Marketing Specialist, Lancashire Enterprises plc
Stuart Wicks  Head of Marine Gas Turbine Support, Rolls-Royce plc, UK
Kenneth Work  I.S. Consultant, Logica UK
Case studies are essential to the teaching of practical and applied subjects such as operations management. To make life easier for teachers and students we have gathered together, in this one volume, a collection of case studies which we and our colleagues use in our teaching. The cases cover a wide variety of operations management issues in many different settings. Furthermore, these cases can be successfully incorporated into operations management teaching programmes at undergraduate and postgraduate levels and also in executive programmes.

This third edition of our case book contains an expanded and updated collection of over 50 cases. Before developing this edition we contacted many of our colleagues who we knew were using the book to ascertain their views. Although we were keen to introduce many new cases, we recognise that we have to maintain a balance by retaining some familiar cases that work well in our teaching. As a result we have kept eight cases as they were in the second edition, and made amendments to about 10 others. Some of our colleagues kindly provided some of their own cases to deal with areas which were not previously covered, such as operations strategy, interactive design, simultaneous engineering, supply chain reengineering, performance measurement, and TPM, for example. You will see that we have also included, as requested, many more short, one or two page, cases.

This case book continues to be structured to follow the themes of, and illustrate the main points contained in, many operations management texts, in particular, Slack, N., Chambers, S. and Johnston, R. (2001), *Operations Management*, Third Edition, Financial Times Prentice Hall, Harlow. We hope that this case book can be used as a companion to such texts, and also, because of the short introductions to each section, can be used as a stand-alone text for introductory operations management courses.

The introduction to this book deals with some issues concerning how to study operations management using cases and how to analyse case studies. Some students do not always see the value of case studies so this first section aims to address such concerns. This section sets out the importance of using case studies in studying operations management and identifies many of the benefits of so doing. It explains the nature of cases, what they are, what they are not, and provides some suggestions for their analysis. This section also explains the objectives for the whole book and describes the book’s structure.

The main body of the book is structured into the seven ‘traditional’ operations headings which are likely to be covered in most operations management courses: Operations Management, Operations Strategy, Design, Planning and Control, Supply Networking, Quality Planning and Control, and Improvement. An introduction at the start of each part provides an overview of the area and some suggestions for further reading. Each case study is accompanied by a set of questions. The ques-
tions are indicative of some of the significant issues found in each case and should guide the students in their analysis. It is recognised that teachers may prefer to devise alternative sets of questions which better reflect their favoured teaching schemes and styles of approach to case analysis. Many of the issues and debating points that arise from the cases are considered in the Lecturer’s Guide which accompanies the case book and can be downloaded from www.booksites.net/johnston.

Organisations on which cases are based have often been kind enough to allow their names to be used. Whilst all the cases reflect real issues facing the organisations at the time, the cases have been written for the purposes of class discussion and student instruction only and are not designed to illustrate the effective or ineffective management of an organisation.

We hope that you, both teachers and students, will derive as much value and pleasure as we have in our use of these cases. We would value any comments and suggestions you might have about the book and welcome your suggestions for future editions.

We would like to thank all those organisations, whether named or disguised, for their help with the preparation of the material used in this book. We are most grateful to the managers and staff of all those organisations for giving their time and their assistance, without which this book could not have been possible.

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Robert Johnston
Stuart Chambers
Christine Harland
Alan Harrison
Nigel Slack
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Introduction to operations management case analysis

Introduction

Operations management (OM) is a practical subject. Trying to learn about OM and the decisions that operations managers take each day in all organisations around us cannot easily be studied by reading texts or listening to lectures alone. Certainly these will give you important and helpful information, but the subject does not come alive until it is practised. You can learn how to fish from a book, but you will never understand the nuances of whirlpools and eddies until you have seen them for yourself. You cannot understand the excitement of playing sport from a book; you have to do it. You can learn recipes from a cookery book but you will not know how good the food tastes, or how difficult it is to cook, until you have tried them out for yourself.

Unfortunately, opening this book will not physically transport you into the office of an operations manager and allow you to take over their job. But it will get you close! It will provide you with information from over 50 different organisations, in many different sectors, from several different countries, and will give you some fascinating insights into what operations managers actually do and how they work, as well as the issues they face. Most importantly, this book will give you the opportunity, in a safe environment, to experiment with the situations they face – giving you the chance to assess, analyse and evaluate the situation they are in and make recommendations.

This casebook will provide you with many benefits:

- You will have at your fingertips real information about a real organisation without having to spend large amounts of time and effort interviewing managers, customers and staff or searching through company documents.
- You will have the chance to evaluate situations faced by real operations managers.
- You will be able to ‘hold time still’ – to assess a situation without it changing as it does in real time. You will have time to undertake analysis and evaluation without the pressures of managing the operation.
- You will have the opportunity, and the information, to debate and discuss the interpretation and use of the data and to undertake meaningful analysis.
- You will be able to develop and discuss possible solutions and their implications.
- You will not be sacked if you get a decision or the recommendations wrong, nor will you be taken to court if you cost the organisation millions of euros, dollars or pounds!
All of the cases in this book are real cases, based on real situations faced by real operations managers in real organisations. For many of them we have been allowed to share with you the name of that organisation.

Remember though, the case itself cannot tell us everything. The material has been selected to provide us with enough information to help us understand the particular topic. It has also been chosen with a topic in mind. Herein lies a problem for studying operations cases. The reality is that any operations problem involves elements of people issues, quality, scheduling, technology ... and every operations manager has to bring all their knowledge and experience to bear to deal with the issue at hand.

For the purpose of teaching and learning, we have had to divide the body of knowledge on operations management into convenient chunks. However, you will find that there are great overlaps when working on the cases. Bear in mind that the cases have been written to illustrate one particular topic but the nature of OM means that you will find, and indeed should look for, the links with all the other topics. That way you will start to understand the complexity, and the excitement, of managing operations.

The aim of this casebook

The aim of this book is to demonstrate some of the problems faced by operations managers in various settings, both goods oriented and service oriented, through the provision of case studies. Its purpose is to promote discussion as to how operations managers might improve their operations and contribute to corporate objectives, and by so doing equip future and practising managers with the skills and techniques needed to be better able to understand and manage operations.

Using case studies will help you develop a range of other skills:

- **Analytical skills** – dealing with both qualitative and quantitative data to analyse situations
- **Application skills** – providing opportunities to practise using tools, techniques and theories learned in class or found in many operations management texts
- **Creative skills** – using imagination and ingenuity to assess and solve unique problems
- **Critical thinking skills** – applying clear and logical reasoning to the information available
- **Communication skills** – listening to colleagues and constructing and expressing your arguments, debating options and presenting findings
- **Decision making skills** – expecting you to reach conclusions and suggest decisions based on your analysis
- **Interpersonal skills** – working with peers, learning how to deal with them and with conflict situations
- **Time management skills** – scheduling time carefully to meet presentation or submission deadlines
- **Written communication skills** – developing effective writing skills through written case reports.
What is expected of you

These skills don’t just appear, they have to be worked at, and you should take personal responsibility for your own learning and development. The next two sections in this introduction will discuss the nature of operations management cases and provide some detailed information about the process of case study analysis. In this section we want to provide a few pointers to help you get the most out of the case approach.

The most important point to remember is to take an active role in your learning. What you get out of a case depends entirely on what you are prepared to put in. There are four different learning opportunities: personal preparation, syndicate work, class discussion and case assignment/examination.

Personal preparation

Personal case preparation is the first and most important step in getting the most out of a case. There is often a temptation to skip or minimise effort on this stage. This is a serious mistake. There is nothing worse than being part of a small group or class discussion and not knowing what is going on! The section on The Process of Case Analysis (see later in this introduction) will show you how to do this. If you find yourself getting bogged down, leave that point and move on. Things often become clearer after a while.

Syndicate work

Many lecturers encourage small groups to work together on particular questions, often culminating in a group presentation to the class. This is an important chance for you to test out your ideas and also take risks with your ideas. Every member of the group has a responsibility to ensure that everyone has a say. This, however, is not sufficient, everyone has to listen to all the views expressed and come to a consensus about the way forward. Group decisions are often better, more informed and better thought out than individual decisions, so see group work as a benefit, not as a threat to your own ideas; be ready to be persuaded! We find syndicate groups often spend too long on the first question. Consider starting the session by agreeing the amount of time you will spend on each part. As you know, deadlines focus the mind!

Class discussion

We have run the same case with different classes and know that some classes have learnt a great deal while others have learnt little. The benefits to be gained in class depend upon the syndicate work, which depends upon your personal preparation. If different groups are making presentations, it is too easy to sit back, switch off and wait for your turn. You need to listen carefully and make sure you avoid repeating what other groups may have said. It is your responsibility to try to build on previous presentations and discussions. Also, there should be no need to remain silent. Use the class discussion time as a chance to ask good, pertinent questions. Make a point of asking critical (crucial) questions, not making critical (negative) points.
Case assignment/examination

Sometimes case studies are used as assignments or as the basis for an exam or part of an exam. Sometimes you will be restricted to personal preparation only, but if possible and if it is permitted, try to make some time for group discussion about the case. As for all forms of examination, it is essential to answer the question. This may sound obvious, but we all know that the main reason why most students fail any piece of work is because they simply have not answered the question. Look at the marks allocated to each question (if they are given) and allocate your time in proportion to the marks. It is always a good idea to include your analysis, calculations, lists, tables and assumptions. Use diagrams and tables where you can; this can be an efficient way of conveying a lot of information without too many words.

The nature of operations management cases

Operations management cases often reflect the nature of operations themselves. They can be complicated. Interacting within any operation there are different pieces of technology, different staff and different systems and procedures. This makes for a complex decision environment. Although some of the complexity has, of necessity, been taken out in the case writing process, you might still find that there are many different things to consider. So you must simplify. Extract what you believe to be important and classify issues, problems and pieces of information. This will give you a clearer picture of the case.

Operations management cases also often involve technology. This can cause people problems. They are reluctant to become too involved in strange technologies because they believe them to be difficult to understand. Yet it is usually not necessary to understand the nature or the workings of the technology itself to analyse the management situation. Just remember that, in essence, most technologies are quite straightforward. Just ask some simple questions. How big is the technology? How much of the work is done by machines as opposed to human beings? How integrated or connected is the technology? What are the effects on the people who staff the operation? How many different kinds of technology are there in the operation? Is it intended to be used for only one product or service (dedicated) or is it adaptable, capable of being ‘set-up’ for a range of different outputs?

This combination of complexity and technology can mean that you might have to speculate about the precise nature of the operation at some points in your analysis. Don’t worry too much about doing this. Provided you are sensible and work from the facts that you do have, and you do not forget that you are only speculating and consider the difference it would make to your analysis if your speculation is misplaced, then your analysis will move forward.

The process of case analysis

Case studies can ask you to do a number of things. Usually, though, they are either asking you to understand a situation and its implications or, alternatively, they are asking you to solve specific problems. Of course, in order to solve problems you first
have to understand the situation and its implications, so the difference between
these two types of case study is really one of emphasis. In fact one of the most useful
ways of approaching case analysis is to treat them as problem-solving opportunities
and follow a sequence of activities designed specifically for problem solving.

Figure A.1 shows this sequence of activities. First there is a process of observation
or, for case analysis, of recognising the symptoms of possible problems described in
the case. Next there is a process of understanding the overall objectives of the prob-
lem-solving process. This will involve understanding the objectives of the operation
itself. After this the nature of the problem should be analysed and the interrelations-
ships between different parts of the case established. It is now time to move on to
considering the different options which might improve the operation. Eventually it
will become necessary to evaluate and choose what you are going to recommend the
operation to do. After this your recommended solution will need to be implemented
within the operation. Finally, the effectiveness of the implemented solution should
be observed and if any further action is needed, the whole cycle is started again.
(You can, of course, only do this last step in a real situation.)

**Observe**

Reading the facts as laid down in a case study is equivalent to observing an organ-
isation in real life. During this stage be careful of jumping to premature conclusions.
Something that seems significant when described in one part of the case study may
take on a totally different aspect when placed in the context of information pre-
sented later. For this reason some authorities counsel against making notes on the
first reading of a case study. Instead, read quickly through the case to get a picture of
the overall ‘story’. Then return to the beginning and work through more thor-
oughly, either highlighting points or making notes of facts and issues which seem
particularly pertinent.

**Figure A.1 The stages of case study analysis**
As you are noting what seem to be the key points, be careful to distinguish the strength of the evidence which is cited in the case. Relevant points can be drawn from the following:

- **Facts.** These are the hard pieces of information which are clearly in a precise form and seem unequivocal. For example, ‘the turnover of the company is £5 million’. They are the bones of the case around which everything else is built.
- **Inference.** Reported facts are rearranged in such a way as to reach further conclusions. The inferred issue may never be explicitly stated in the case but can nevertheless be drawn from the logic of other statements. For example, if it is stated that the types of products produced by a company doubled over a period of time and if it is also stated that the management of that company invested heavily in more flexible machinery during the same period, it is safe to infer that the managers of the company understood the connection between product variety and operational flexibility.
- **Hearsay.** Many of the cases include statements from managers or other employees. These views are genuinely held and may be based on fact or, at the opposite extreme, they may be emotional responses to the situation. You will have to make judgements about the reliability of this data and weight it accordingly alongside other, more ‘hard’ evidence.
- **Speculation.** In some ways this is a weaker form of inference. Speculation must have a logical base in so much as it must be possible to make a case for the point you are noting. Furthermore, there should be some evidence to support it in the case study, though not to the point where one could in any way logically ‘prove’ the point.
- **Assumption.** When there is a clear gap or hole in the data in the case study, it may be necessary to make an assumption which, as far as you can tell, seems reasonable in the context being described. For example, we may assume that the behaviour of customers in different countries is sufficiently similar to recommend the same solution for all parts of a multinational’s company. The important point is that assumptions must always be seen for what they are: ‘best guesses’ under the circumstances. The important caveat is that you should examine the possible effects if the assumptions you have made prove to be false.

**Understand objectives and context**

Unless you know what the organisation described in the case study is trying to do, it is difficult to judge the nature of the problems it faces and, just as important, how the managers in the organisation might view things.

In operations management cases this stage is usually concerned with connecting the overall objectives of an organisation with the specific objectives of the issue or problem described in the case. So, for example, if a case describes the purchase of a particular piece of process technology for an operation, the questions to try to clarify could be as follows:

- What is the history of the organisation in terms of its use of process technology?
- What are the long-term objectives of the operation? Is it primarily a ‘for-profit’ organisation or do other non-financial objectives dominate? What are the implications (if any) for the way it uses process technology?
How does the organisation serve its customers? Which aspects of what the organisation ‘sells’ to its customers are the most important to them? Is it:

- the specification of the product or service?
- the quality of the product or service?
- the customer lead-time (how long you have to wait) for the product or service?
- the dependability of delivery of the product or service?
- the variety, customisation or flexibility of the product or service?
- the cost of the product or service?

What aspects of process technology in this particular case (size, cost, capacity, flexibility, etc.) influence the operations objectives?

How does the way in which the organisation develops its process technology constrain and limit the strategic direction of the organisation?

Conversely, how does the way in which the organisation develops its process technology enable the organisation to enhance its strategy?

**Analyse the situation**

Be careful not to skip this stage. It is tempting to do so: the objectives of the organisation have been formulated and the issues already listed from the case study, so why not go straight into thinking of ways of solving whatever problems are described? Even when the decision seems clearly defined, it is worthwhile spending some time analysing the information in the case. Many organisations and individuals have suffered as a result of managers jumping to conclusions without adequate analysis of the situation.

The *Concise Oxford Dictionary* defines the verb ‘to analyse’ as to ‘ascertain the elements of’. Analysis is the process of breaking down a complex situation into its component parts. This will help you to understand the underlying issues and the relationships between the problems in the case. The most likely outcome is that the nature of the problems in the case can be redefined so as to reveal their root causes.

Many of the cases comprise both narrative and data. It is important that your analysis should review both aspects. If you are dealing with narrative you may need to identify the different products or services provided by the organisation and ask which seem more popular and which are more difficult to provide and why? How are they made or provided, and can you identify the key steps or stages in the operations process? You might ask yourself what different people say about the situation and how good or bad things seem to be? If you are dealing with data, you might look for trends and for figures that seem out of line. You may need to calculate averages for comparison, or speeds of queues or of different production processes to identify bottlenecks or delays. Where possible you should identify and tabulate differences, for example between markets, volumes, skill requirements, etc. You may find simple tools like lists, graphs, charts and flow diagrams useful to summarise your findings.

Most questions will be concerned with understanding the nature of the problem and its causes. One useful way of getting to the root causes of the issues described in the case is by using cause–effect listings. This is simply a process of identifying the main symptoms, problems or ‘effects’ described in the case and then listing all the possible reasons, explanations or ‘causes’ of these which are described or referred to in the case study. So, for example, if you see an operation as having one...
major service quality problem which results in errors in the information presented to customers, the cause–effect listing could be as follows.

<table>
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<th>Effect</th>
<th>Possible causes</th>
</tr>
</thead>
<tbody>
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<td>Errors in information reaching customers</td>
<td>Lack of training?</td>
</tr>
<tr>
<td></td>
<td>Errors in staffs’ information sources?</td>
</tr>
<tr>
<td></td>
<td>Out-of-date staff information sources?</td>
</tr>
<tr>
<td></td>
<td>Customers given insufficient guidance on how to request information etc.?</td>
</tr>
</tbody>
</table>

The next step would be to consider the connections and interrelationships between the possible causes based on your analysis of the information.

**Determine the options**

Having spent some time breaking down the situation into its various elements (analysis), there comes a time to put it all back together (synthesis). This is the creative part of the whole process. It is where you should put forward the various courses of action that could be considered by the organisation in order to ‘solve’ the problems described in the case, or generally to improve the operation’s performance. You will usually find that the questions associated with the case will help you do this. You may be asked to list the range of options, or identify the various ways that an organisation might go about doing something.

This is where the work you did in analysing the information in the case will again pay off. Although at an early stage you may have only thought of one or possibly two ‘obvious’ solutions, a good piece of analysis is likely to have helped you identify many more possibilities. Furthermore, it is more likely that these options will deal with the ‘real’ problems and the causes of these, rather than what you may have believed to be the situation on first reading the case.

As in most creative activities, two principles are worth bearing in mind in developing options. First, don’t evaluate or criticise potential solutions too early. Go for quantity rather than quality of solutions to begin with. Try to ‘brainstorm’ all the possible ways of dealing with the situation. Do not reject any options at this stage, however crazy they may seem. Second, organise the solutions in some sets that naturally group together and check for overlaps, gaps and inconsistencies.

**Evaluate and choose**

Evaluating means determining the value or worth of things. That is exactly what this stage consists of, determining the worth of the options generated in the previous stage and assessing how likely they are to contribute to improving the situation described in the case.

Your ability to evaluate a situation will be a function of the analysis you have already undertaken, though you may find that you have to undertake a little more analysis in order to evaluate all of your options. You should also test out your arguments against the material in the case to ensure that the evidence supports your conclusions.
The process of evaluation is best carried out by considering three questions about each option:

1. *How feasible is each option?* The feasibility of an option indicates the degree of difficulty in adopting it. It takes into account the time, effort and money needed to put it into practice. For example, you could consider whether the organisation has the technical or human skills required to carry out the option, whether it has the funding or cash requirements to invest in the option and generally whether it has the capacity or capability of implementing the option.

2. *How acceptable is each option?* By acceptability of an option we mean how far it takes the operation towards its objectives. In effect, it is the ‘return’ we get for choosing that option. Acceptability is best judged in two ways. First, by assessing the operational impact of the option: how it is likely to affect the operational performance of the organisation. For example, does the option increase the likelihood that the product or service of the operation will be closer to what customers want? Second, acceptability ought to be judged in terms of the financial impact of each option. If there is sufficient financial data in the case, it is useful to work out some of the more conventional financial evaluation measures such as return on investment or payback period.

3. *How risky is each option?* Perhaps the most robust way of evaluating the risk inherent in each option is to assess its ‘downside risk’. That is, in effect, asking the question, ‘What is the worst outcome that could happen if a particular option is chosen?’ The next obvious questions are: ‘What would be the effect on the operation if that worst outcome occurred?’, ‘Could the operation survive?’ and ‘Is it worth the operation taking such a risk?’

**Implement**

If you are asked to, or choose to, make recommendations as part of your case study analysis, then they will be incomplete without some consideration of how they might be put into practice. The analysis of the case study may set the destination, but the implementation stage defines how you get there, which is a more difficult task.

The best way to consider implementation issues is to set an ‘implementation agenda’ – a set of basic questions whose answers set the basic plan for implementation:

- **When to implement?** Some times are better than others. What is happening in the organisation which could affect the chances of the recommended course of action being a success? Are some times of year quieter or more suitable for launching a change in the operation? It is clearly better to make changes when conditions are right. A word of warning though, there is never a perfect time, only some that are better than others.

- **How fast to proceed?** Should one implement the recommendations over a short or long period of time? Is there an advantage, for instance, in moving quickly to apply the recommendations throughout the organisation, or should a more gradual dissemination be planned?

- **Where to start?** In which part of the organisation should the recommendations be applied first? There are two schools of thought here:
  1. Start first where you will achieve the most improvement.
  2. Start first where you are sure you will succeed.
The advantage of the first is that the changes will quickly ‘pay back’ the cost, time and effort invested. The advantage of the second is that the risk of failure is minimised and the people involved in implementation learn the problems associated with the recommendations as they go along, without losing credibility.

**The structure of the book**


Each part concentrates on a different aspect of operations management. Several cases are provided in each part which set out to describe some of the key issues involved and to show some of the difficulties and questions faced by operations managers. Introductions at the start of each part outline some of the key aspects of the topic. Some suggestions for further reading are also included.

**Part 1 Operations management**

This part provides an overview of the nature and tasks of operations management. A framework is provided that encapsulates these and sets out the structure for the rest of the book and for the studying of the subject. It deals with the processing of materials, information and customers, and the creation of goods and services.

**Part 2 Operations strategy**

This part investigates the role of operations in supporting, implementing and driving corporate strategy. Although many courses may leave operations strategy until the end, we find it useful to set out the context for operations management decisions and action near the beginning of our courses.

**Part 3 Design**

This part and its associated cases demonstrate the processes involved in designing products and services and also the processes which create and deliver them. It identifies the importance of design and how products and services need to be designed not only to meet customer expectations but also to support the strategic intentions of the organisation. This part outlines the key stages involved in the design of a product or service, from concept to final specification. It also outlines the key activities involved in designing the process of delivery, the use of technology and job design.

**Part 4 Planning and control**

Operations planning and control is a central, substantial and critical operations task. Thus planning and control issues have been split over the next three parts. Part 4 focuses on general planning and control, often a large and complex task. Simply put, this involves ensuring that the operation has sufficient resources to be
able to meet demand. This part outlines some of the key planning and control activities, including the planning and control of capacity, inventory, just in time and *kaizen*.

**Part 5  Supply networking**

No operation, or part of an operation, exists in isolation. Each operation is part of a larger and interconnected network of other operations. Supply networking is concerned with the flow of goods and services through the supply network, from suppliers through to customers. In large organisations, such networks might involve many hundreds of linked supply chains. Supply networking is concerned with both long-term consideration of an organisation’s position in the supply network and the shorter-term issue of controlling the flows of materials through the supply chain. This part and its associated cases investigate managing relationships between suppliers and customers and designing the supply chain to meet market requirements.

**Part 6  Quality planning and control**

Quality issues are covered in this part and also in the next part on improvement. In this part we focus on planning and control issues such as quality problems, and on quality control techniques and approaches such as statistical process control and control charting.

**Part 7  Improvement**

This part and its associated cases outline what is emerging as an important operations task. It covers the importance of performance measurement and identifies several techniques that can be used to improve organisational performance, such as flow charts, scatter diagrams, cause–effect diagrams and Pareto diagrams. This part also covers total quality management (TQM), one of the best-known improvement philosophies.

**Recommended reading**

Operations management
Operations management is concerned with the design, planning, control and improvement of an organisation’s resources and processes to produce goods or services for customers. Whether it is the provision of airport services, greetings cards, plastic buckets or holidays, operations managers will have been involved in the design, creation and delivery of those products or services (see Figure P1.1).

**Designing products and services**

Design is the activity of determining the purpose, physical form, shape and composition of products and services, and also, importantly, designing the processes that will be used to produce them. You will see from the Birmingham International Airport
case (Case 1) that each part of the airport – terminals, baggage handling services, aeroplane servicing and catering, for example – has been carefully designed to fulfil not only its current role, but also with the possible demands of the next year and even the next 10 years in mind. In the case of Concept Design Services (Case 5) the fashionable designs of the ‘Concept’ range have accounted for the rapid growth and profitability of the business. Design is an important activity that will ensure the long-term success of the organisation and is covered in Part 3 of this book.

**Planning and controlling the operation**

The planning and control of operations is a major task for all operations managers: coordinating all the different internal operations to ensure that materials and customers are in the right place at the right time for the right operation. Each part of Birmingham Airport’s operation has to be planned so that it has enough staff, enough inventory, enough space, the appropriate passengers, the correct baggage, the right planes and the proper equipment in the right place at the right time. The staff involved, from the airport, airlines and associated organisations, have to undertake all the tasks they have been given so that the operation works smoothly, and management must then control these operations to ensure that all goes to plan and meets the needs of the customers – today, tomorrow, next week, next month and next year. Planning and control is the activity of deciding what the operations resources should be doing, then making sure that they really are doing it. For Frederic Godé of BonPain (Case 3) the success of the organisation depends upon the planning of all resources so that the appropriate mix of baguettes and patisseries are ready for delivery to the supermarkets as required. At Wace Burgess (Case 4) good planning ensures that greetings cards are ready in time for all the festivals and events. It’s no good supplying the last batch of Christmas cards in January! This topic is developed in Part 4.

**Improving the performance of the operation**

When products and services have been designed and the operation’s work is being planned and controlled, this is not the end of operations management’s direct responsibilities. The continuing responsibility of all operations managers is to improve the performance of their operation. Failure to improve at least as fast as competitors (in for-profit organisations) or at the rate of customers’ rising expectations (in all organisations) is to condemn the operations function always to fall short of what customers expect and what the organisation as a whole requires from it. The Operations Director at Birmingham International Airport says that ‘Our mission is to be the best regional airport in Europe. To do this we need to put on the right services at the right times to the right places.’ It is through constantly looking for ways to improve what the airport does and how it does it that the airport will be helped to maintain and improve its competitive position. Executive Holloware (Case 42) needs to improve the quality of its products or it may well go out of business! Part 7 contains cases on how organisations go about the important improvement task.
Operations strategy

Although the operations function is central to the organisation because it produces all the value-added goods and services, it does not exist in isolation. It has to work in conjunction with all the other functions of the organisation: marketing, accounting and finance, product/service development, human resources, purchasing and the engineering/technical functions, for example. Each of these influences, and is influenced by, the activities of the operation. Each of these functions has its own important role to play in the organisation’s activities and they are (or should be) bound together, along with operations, by common organisational goals.

The strategic role of an organisation is to coordinate the activities of all these functions so that the organisation as a whole coherently and consistently meets not only the needs of the customers, but also fulfils the strategic intentions of the organisation. Operations strategy is concerned with helping the operation contribute to the organisation’s competitiveness or strategic direction. This topic is dealt with in more detail later in this part and in Part 2.

There is a strategic issue in most of the cases in this book. For example, in Concept Design Services, the three markets described must be served in very different ways and so operations must be closely involved in supporting these different requirements if the business is to continue to grow profitably.

The transformation model

All operations produce their goods or services by a process of transformation (see Figure P1.2).

Figure P1.2 The transformation model