

PROCUREMENT PRINCIPLES AND MANAGEMENT IN THE DIGITAL AGE

TWELFTH EDITION



**PETER BAILY, DAVID FARMER,
BARRY CROCKER AND DAVID JESSOP**

Procurement Principles and Management in the Digital Age



Pearson

At Pearson, we have a simple mission: to help people make more of their lives through learning.

We combine innovative learning technology with trusted content and educational expertise to provide engaging and effective learning experiences that serve people wherever and whenever they are learning.

From classroom to boardroom, our curriculum materials, digital learning tools and testing programmes help to educate millions of people worldwide – more than any other private enterprise.

Every day our work helps learning flourish, and wherever learning flourishes, so do people.

To learn more, please visit us at www.pearson.com/uk

Procurement Principles and Management in the Digital Age

Twelfth edition

Peter Baily
David Farmer
Barry Crocker
David Jessop



Harlow, England • London • New York • Boston • San Francisco • Toronto • Sydney • Dubai • Singapore • Hong Kong
Tokyo • Seoul • Taipei • New Delhi • Cape Town • São Paulo • Mexico City • Madrid • Amsterdam • Munich • Paris • Milan

PEARSON EDUCATION LIMITED

KAO Two
KAO Park
Harlow CM17 9NA
United Kingdom
Tel: +44 (0)1279 623623
Web: www.pearson.com/uk

First published 1968 (print)
Ninth edition 2005 (print)
Tenth edition 2008 (print and electronic)
Eleventh edition 2015 (print and electronic)
Twelfth edition 2022 (print and electronic)

© Institute of Purchasing and Supply 1968, 1974 (print)
© Peter Baily and David Farmer 1977, 1981, 1985, 1990 (print)
© Peter Baily, David Farmer, David Jessop and David Jones 1994, 1998, 2005 (print)
© Peter Baily, David Farmer, Barry Crocker, David Jessop and David Jones 2008, 2015 (print and electronic)
© Pearson Education Limited 2022 (print and electronic)

The rights of Peter Baily, David Farmer, Barry Crocker and David Jessop to be identified as authors of this work have been asserted by them in accordance with the Copyright, Designs and Patents Act 1988.

The print publication is protected by copyright. Prior to any prohibited reproduction, storage in a retrieval system, distribution or transmission in any form or by any means, electronic, mechanical, recording or otherwise, permission should be obtained from the publisher or, where applicable, a licence permitting restricted copying in the United Kingdom should be obtained from the Copyright Licensing Agency Ltd, Barnard's Inn, 86 Fetter Lane, London EC4A 1EN.

The ePublication is protected by copyright and must not be copied, reproduced, transferred, distributed, leased, licensed or publicly performed or used in any way except as specifically permitted in writing by the publishers, as allowed under the terms and conditions under which it was purchased, or as strictly permitted by applicable copyright law. Any unauthorised distribution or use of this text may be a direct infringement of the authors' and the publisher's rights and those responsible may be liable in law accordingly.

All trademarks used herein are the property of their respective owners. The use of any trademark in this text does not vest in the author or publisher any trademark ownership rights in such trademarks, nor does the use of such trademarks imply any affiliation with or endorsement of this book by such owners.

Pearson Education is not responsible for the content of third-party internet sites.

ISBN: 978-1-292-39749-8 (print)
978-1-292-39750-4 (PDF)
978-1-292-39751-1 (ePub)

British Library Cataloguing-in-Publication Data

A catalogue record for the print edition is available from the British Library

Library of Congress Cataloging-in-Publication Data

Names: Baily, Peter J. H., author. | Farmer, David H., author. | Crocker, Barry, author. | Jessop, David (Co-author of Procurement principles and management), author.
Title: Procurement principles and management in the digital age / Peter Baily, David Farmer, Barry Crocker, David Jessop.
Description: Twelfth edition. | Harlow, England ; New York : Pearson, 2022. | Includes index.
Identifiers: LCCN 2021036890 | ISBN 9781292397498 (paperback) | ISBN 9781292397511 (epub) | ISBN 9781292397504 (pdf)
Subjects: LCSH: Purchasing--Management. | Industrial procurement--Management.
Classification: LCC HF5437 .P7995 2022 | DDC 658.7/2--dc23
LC record available at <https://lcn.loc.gov/2021036890>

10 9 8 7 6 5 4 3 2 1
26 25 24 23 22

Front cover image: elanabs/Shutterstock
Cover designed by Two Associates

Print edition typeset in 9.5/13pt Stone Serif ITC Pro by Straive
Printed in Slovakia by Neografia

NOTE THAT ANY PAGE CROSS REFERENCES REFER TO THE PRINT EDITION

Contents

Preface	xiv
Acknowledgements	xvii
Part 1 PROCUREMENT OBJECTIVES AND DEVELOPMENT	1
1 Procurement scope and development	3
Introduction	3
Objectives of this chapter	3
The scope of purchasing	4
Sustainable procurement	5
The procurement cycle	9
Procurement transformations	16
The changing role of procurement and supply	19
Proactive procurement	23
The changing nature of relationships	24
Procurement positioning	26
Supplier preferencing	31
Total acquisition cost and total cost of ownership	33
Procurement development	35
Best practice in strategic supply management	39
Summary	40
Self-assessment tasks	41
References and further reading	41
2 Strategic procurement and supply chain management	43
Introduction	43
Objectives of this chapter	43
Strategic procurement	44
The concept of strategy	46
The mission statement	46
Levels of strategy	47
Category management (CM)	48
Skills for category management	50
Strategic management	51

Strategic analysis	51
Strategic development	58
Strategy implementation	59
Objectives for purchasing/procurement	59
Selecting a strategy	61
Effective supply market strategies	62
Integrated approaches	63
The supply chain	64
Supply chain resilience	65
The supply chain concept in action	69
Improving the efficiency of the supply chain	70
Hierarchy of objectives	75
The future of procurement and supply management	80
Summary	85
Self-assessment tasks	85
References and further reading	86
3 Public sector procurement	89
Introduction	89
Objectives of this chapter	89
Part A	90
Historic background	90
Public sector sustainability and social value	93
Third sector – not-for-profit procurement	94
UK National Health Service (NHS)	96
UK Metropolitan Police procurement	97
The Ministry of Defence (MoD)	98
Part B	103
The EU and procurement	103
EU competition procurement cycle for goods and services	104
EU procurement directives	104
Public procurement after Brexit	105
Summary	107
Self-assessment tasks	107
References and further reading	108
Part 2 KEY PROCUREMENT ISSUES	111
4 Outsourcing	113
Introduction	113
Objectives of this chapter	113
Outsourcing	114
Outsourcing methodologies	121
Outsourcing – pitfalls	124
How to avoid pitfalls	126

Outsourcing update	128
Summary	130
Self-assessment tasks	130
References and further reading	131
5 Quality management	133
Introduction	133
Objectives of this chapter	133
What is quality?	134
Continuous improvement	138
Statistical process control	140
Taguchi methods for the 'off-line' control of quality	142
Failure mode and effect analysis	143
The House of Quality	144
Specification	145
Producing a specification	146
Sustainable specifications	147
Early supplier involvement	148
Standardisation	149
Correction of defects	150
Quality circles	151
Value analysis/value engineering	151
Make-or-buy decisions	152
Six Sigma	154
Quality update: Quality 4.0	157
Summary	157
Self-assessment tasks	158
References and further reading	159
6 Inventory management	160
Introduction	160
Objectives of this chapter	160
Provisioning systems	161
Order quantities and stock control	161
Materials requirements planning (MRP)	167
Manufacturing resource planning (MRP2)	170
Enterprise resource planning (ERP)	173
Just-in-time (JIT)	174
Lean and agile supply	178
Vendor-managed inventory (VMI)	187
Covid-19: just-in-case inventory?	189
Summary	192
Self-assessment tasks	192
References and further reading	192

7	Lead time and time compression	194
	Introduction	194
	Objectives of this chapter	194
	Time and competitive advantage	194
	On-time delivery	198
	Lead-time improvement	204
	Effect of Covid-19 pandemic on supply chains	205
	Supply chain resilience	205
	Summary	205
	Self-assessment tasks	206
	References and further reading	206
8	Sourcing strategies and relationships	208
	Introduction	208
	Objectives of this chapter	208
	The nature of the sourcing decision	209
	Attributes of a good supplier	210
	Sourcing decisions	210
	Sources of information on potential suppliers	212
	Supplier evaluation	213
	Carter's 10 Cs model	219
	Impact of supply chain disruption – Covid-19 pandemic	223
	Award criteria	223
	Sustainable sourcing	225
	The right relationship	227
	Other aspects of sourcing	229
	Collaboration and partnering	232
	The Bensaou model of relationship management	236
	Tiering of suppliers	240
	Summary	242
	Self-assessment tasks	243
	References and further reading	243
9	Price and total cost of ownership (TCO)	245
	Introduction	245
	Objectives of this chapter	245
	Factors affecting pricing decisions	245
	How buyers obtain prices	253
	Auctions	253
	Discounts	253
	Price analysis and cost analysis	255
	Pricing major contracts	265
	Investment appraisal	268
	Learning curves and experience curves	269

Conclusion	271
Summary	271
Self-assessment tasks	271
References and further reading	272
10 Negotiations	273
Introduction	273
Objectives of this chapter	273
Negotiation	273
Negotiation skills	275
Preparation	276
The introductory stage	284
The discussion stage	284
The agreement stage	286
The post-negotiation stage	286
SPEED negotiation process	286
Competition and cooperation in negotiation	287
Distributive and integrative approaches	293
Body language	294
Negotiation strategies	294
Best practice negotiation	295
Summaries of other examples of best practice negotiation approaches	299
Virtual negotiations	300
Summary	302
Self-assessment tasks	302
References and further reading	302
Part 3 APPLICATIONS	305
11 Project procurement	307
Introduction	307
Objectives of this chapter	307
Introduction to projects	308
Project planning	309
Project control	310
The 'should cost model' (SCM)	316
Subcontracting	316
Network analysis	318
Risk	323
Disaster recovery	328
Blockchain in project management	329
Predictive analytics	330
Summary	330
Self-assessment tasks	331
References and further reading	331

12 Procurement of commodities	333
Introduction	333
Objectives of this chapter	333
The principal commodities	334
Why do commodity prices fluctuate?	337
Price stabilisation schemes	338
The role of the speculator	339
Hedging with futures contracts	339
The difference between futures and forwards	341
Some buying techniques	342
Indifference prices	344
Traded options	347
Rare earth metals	348
Application of Blockchain for sustainability and traceability	348
Glossary	349
Summary	349
Self-assessment tasks	350
References and further reading	350
13 International sourcing, global sourcing and onshoring	352
Introduction	352
Objectives of this chapter	352
Global sourcing and international procurement	353
Why source internationally?	355
Increases in offshoring	356
Issues with international sourcing	357
Incoterms (2020)	362
How to change	365
Countertrade	367
Latest developments – onshoring and nearshoring	368
Summary	371
Self-assessment tasks	372
References and further reading	372
14 Capital procurement	375
Introduction	375
Objectives of this chapter	375
The acquisition of capital equipment	375
What are capital items?	377
Leasing and hiring of capital equipment	377
Capital requisitions	378
The project approach	379
Lifetime costs	380
Investment appraisal	380

Investment appraisal criteria	382
Conclusion	387
Summary	387
Self-assessment tasks	387
References and further reading	388
15 Retail procurement	389
Introduction	389
Objectives of this chapter	389
Retailing	390
Retailing research	392
Supply chains in retailing	392
Indirect procurement	394
Application of technology	394
Brands	395
Developments in the retail sector	396
Conclusion	400
Summary	401
Self-assessment tasks	401
References and further reading	401
16 Services procurement	403
Introduction	403
Objectives of this chapter	403
Special factors	403
Service quality	405
Managing perceptions and satisfaction	407
Procurement of marketing services	413
Procuring public relations (PR)	418
How to buy legal services	421
Procurement of consultancy services	423
Summary	429
Self-assessment tasks	429
References and further reading	430
17 Corporate social responsibility and sustainability	431
Introduction	431
Objectives of this chapter	432
Corporate social responsibility (CSR)	432
Sustainability	434
Business drivers for socially responsible procurement	442
Social Accountability 8000 (SA8000)	444
Three pillars of CSR	447
Diversity	449

Social value	452
Summary	452
Self-assessment tasks	453
References and further reading	453

Part 4 INDUSTRY 4.0: E-PROCUREMENT SYSTEMS AND CONTRACT MANAGEMENT 457

18 Industry 4.0: e-procurement, digitalisation and analytics 459

Introduction	459
Objectives of this chapter	459
What is e-procurement?	460
The benefits of e-procurement	462
Complex procurement	462
Reverse auctions	463
Measuring the benefits of e-procurement	466
Industry 4.0	468
Analytics	479
Conclusion	482
Summary	483
Self-assessment tasks	483
References and further reading	483

19 Contract law 486

Introduction	486
Objectives of this chapter	486
Contract law	486
International contract law	514
Summary	515
Self-assessment tasks	516
References and further reading	516

20 Contract management 517

Introduction	517
Objectives of this chapter	517
Contract management	517
Critical success factors	518
The Contract Management Cycle	520
Trust	529
360-degree relationship assessment, measurement and feedback	531
Performance management	533
A balanced performance measurement system	534
Benefits of contract management	535
Examples of performance metrics	537

Service level agreements (SLAs)	539
Procurement as the intelligent customer	543
Benchmarking in procurement and supply	544
Summary	545
Self-assessment tasks	545
References and further reading	546
Index	548
Publisher's acknowledgements	563

Supporting resources

Visit go.pearson.com/uk/he/resources to find valuable online resources

For instructors

- An Instructor's Manual that includes learning objectives, a list of the case studies, figures and research boxes within each chapter and teaching notes.
- A set of PowerPoint slides from the book.

For more information please contact your local Pearson Education sales representative or visit go.pearson.com/uk/he/resources

Preface

The original text was written over 40 years ago by Peter Baily and David Farmer and was in its day one of a very small number of specialised texts relating to the field of purchasing and supply. Since that time, purchasing and supply chain management has become recognised as a crucial strategic activity by those concerned with organisational management and as a recognised academic discipline, with a growing number of university professors dedicated to the subject area. It is reassuring to note that the literature on the subject continues to expand, as does the amount of academic and practitioner interest in it, reflected in the now substantial number of university degrees available at both under- and postgraduate level. The visionary and pioneering work that Peter and David took part in, probably to some extent as a gesture of faith, is now fully justified.

The text could not have survived for this length of time without continuous change, and of course the idea behind this new edition is to continue that process. It should be pointed out that the change process is evolutionary, and that we have taken care to balance the newer philosophies emerging in our profession with the proven and established thinking and practice. This text is not of the ‘read this and it will change your life’ genre; rather it is, we hope, a reflection of sound mainstream practice, accompanied by comment on the way things seem to be going, and insights into developing ideas and approaches.

This twelfth edition has been substantially updated with many additions in the form of more detailed case studies, additional academic content and the inclusion of more practical examples of best practice in many key areas.

Revisions and additions

Specifically, readers will note the following **new** elements:

- the inclusion of **three self-assessment tasks** at the end of each chapter;
- a comprehensive review of the **future of procurement**;
- material explaining the long-term changes in strategy in response to supply disruptions caused by disasters and by the **Covid-19 pandemic** inserted into various chapters;

- a revised chapter considering **Industry 4.0 tools** such as **e-procurement, Blockchain, the Internet of Things, Big Data, artificial intelligence (AI), bots, digitalisation and analytics**;
- **diversity and supplier diversity** considered in detail;
- the inclusion of **supply chain resilience** approaches;
- considerable coverage of **sustainability** provided across relevant chapters;
- the inclusion of **social value** strategies and approaches;
- the inclusion of **virtual negotiation** approaches in response to the growing trend of working from home;
- in the wake of the **Covid-19 pandemic**, updated additional material exploring **offshoring/onshoring**;
- **third sector/not-for-profit** procurement considered;
- additional material for coverage of **risk**;
- consideration of **just-in-case inventory** as a method of improving resilience;
- the inclusion of the **procurement of consultancy**;
- the inclusion of a **Contract Management Cycle**;
- retail procurement completely revised to include **omnichannel** challenges and digital tools;
- **supplier relationship management (SRM)** expanded to include **two-way, 360-degree relationship measurement**;
- the addition of **quality function deployment (QFD)** and the **House of Quality (HOQ)**;
- **ratio analysis** for analysing financial viability of suppliers now included.

We are very grateful for the contribution of Alexis Brooks CIMA and David Moore of Cranfield University to the revised Chapter 3 on the subject of buying for government and public services. We also thank Neil Fuller, a chief examiner for the Chartered Institute of Procurement and Supply, for his help and advice, and for his contribution of material included in our treatment of the ‘quality’ theme. Finally, we thank Ray Carter for his permission for inclusion of 10 Cs and Paul Jackson for his permission for inclusion of extracts from his ‘Three Pillars’ article and the ‘Category Management Rainbow’ article.

The text is, as before, organised into four parts. The first, on the theme of objectives and development and covering Chapters 1–3, deals with the scope of procurement activity and its evolution, relevant strategic issues and considerations, the structure and organisation of procurement and public sector procurement. The second part, Chapters 4–10, looks at the key procurement variables of quality, inventory, lead time, sourcing, total cost of ownership and price and negotiation. Part 3, Chapters 11–17, concerns itself with important procurement activities and applications, dealing with processes associated with buying in particular markets or economic sectors. The final part, covering Chapters 18–20, deals with Industry 4.0, contract law and contract management.

We continue to hope that the text will appeal to those in the practitioner and academic communities. We have attempted to strike a balance between

the demands of a pure academic text and the sometimes-simplistic treatment of ideas encountered in the literature aimed at managers.

We are grateful for the help and support of many colleagues and friends who have contributed in a great variety of ways, and to the copyright holders of some of the included material. Specific acknowledgements are, of course, made at the appropriate points in the text.

Barry Crocker

Acknowledgements

We would like to thank the reviewers, John Bancroft, Oxford Brookes University; Dr Kamila Walters, University of Brighton; Nicholas Barnett, University of Westminster; Dr Trevor Stone, University of Lincoln; and Alexa Kirkaldy, University of Warwick, for their valuable feedback. We should also like to thank Rosalind, without whom this edition would not have been possible.

Part 1

Procurement objectives and development

Chapter 1 Procurement scope and development

**Chapter 2 Strategic procurement and supply chain
management**

Chapter 3 Public sector procurement

1

Procurement scope and development

Introduction

Procurement is facing increasing complexity and challenges as, in addition to delivering sourcing cost savings, it is expected to enhance its influence and extend its value-adding impact into strategic areas such as sustainability, diversity, digitalisation, risk management, corporate strategy alignment and innovation. In this chapter we examine the developing role of the procurement and supply function in managing challenges, and comment upon the ways in which the activity can contribute to the efficiency and effectiveness of an organisation, offering mini case studies demonstrating how companies are developing their procurement contribution in terms of value added. We shall highlight how purchasing has become a subset of procurement, including the objectives and phases of the procurement cycle. We will identify ways of measuring the stage of development reached by an organisation and demonstrate how the development stage reached can affect performance of the procurement activity.

Objectives of this chapter

- To discuss the scope of purchasing and procurement
- To identify the procurement cycle concept
- To introduce the concept of sustainable procurement
- To introduce a category of risks, including fraud and corruption risks
- To discuss the changing role of purchasing and supply
- To examine the 'total acquisition cost' concept
- To highlight the evolution of concepts relating to purchasing development and the emergence of procurement
- To identify key practices encountered in developed strategic procurement
- To provide mini case studies demonstrating how companies are developing their procurement functions

The scope of purchasing

A well-known statement of the objectives of purchasing is: to acquire the right quality of material, at the right time, in the right quantity, from the right source, at the right price. This is known as the five rights. This statement is criticised by some as being rather superficial and simplistic. This is undoubtedly a valid comment, though the definition does provide a practical starting point for discussion. For present purposes, the following broad statement of objectives is suggested:

- To supply the organisation with a flow of materials and services to meet its needs
- To ensure continuity of supply by maintaining effective relationships with existing sources and by developing other sources of supply either as alternatives or to meet emerging or planned needs
- To buy efficiently and wisely, obtaining by ethical, diverse and sustainable means the best value for every pound spent
- To maintain sound cooperative relationships with other departments, providing information and advice as necessary to ensure the effective operation of the organisation as a whole
- To develop staff, policies, procedures and organisation to ensure the achievement of these objectives
- To employ digital and analytical tools to add value.

Companies therefore need to be adopting procurement's contribution in terms of adding value, strategic alignment and as a key driver of competitive advantage.

Mini case study – Hertz

Buyers have been urged to remember their business's overall strategy when trying to transform their procurement.

If procurement cannot align itself with what the organisation wants to achieve, it will not get the support for what it wants.

In addition, we might add some more specific objectives, such as:

- To select the best suppliers in the market
- To help generate the effective development of new products
- To protect the company's cost structure
- To maintain the correct quality/value balance
- To monitor supply market trends
- To negotiate effectively in order to work with suppliers who will seek mutual benefit through economically superior performance
- To adopt environmentally responsible and sustainable supply management
- To promote diversity in the supply chain.

Sustainable procurement

Sustainable procurement can be defined as:

a process whereby procurement meets their needs for goods and services in a way that achieves value for money on a whole-life basis in terms of generating benefits not only for the organisation, but also to society and the economy whilst minimizing damage to the environment.

Four key aims are:

- To minimise negative impacts of goods, works or services across their life cycle and through the supply chain
- To minimise demand for non-renewable resources
- To ensure that fair contract prices and terms are applied and respected
- To promote diversity and equality throughout the supply chain.

(Sustainable sourcing is covered in Chapters 8 and 17 in detail, and in other chapters as appropriate.)

It is by including many of these objectives that purchasing has evolved into procurement. Indeed, many commentators state that following the Covid-19 pandemic, procurement's critical business role has finally been recognised. CIPS support this view in that, in the past, procurement had been focused on delivering value and ensuring consistency and continuity of supply, whereas now it is about managing the **risk agenda** (issues such as modern slavery, sustainability, diversity and innovation).

■ Risk management

Risks can be categorised as follows:

- **Operational risk:** Operational supplier failure can delay or interrupt the inbound flow of goods and materials, potentially leading to loss of revenue.
- **Quality risk:** Low-cost country sourcing has exposed procurement to new suppliers whose perception of quality and adherence to standards may not match those of its customer or tier-one suppliers. (Tier-one suppliers provide products and components directly to original equipment manufacturers (OEMs) and also manage tier two, with whom only they have contracts.)
- **Compliance risk:** Accordingly, with increased regulations and heightened awareness of social, ethical and sustainability requirements, procurement carries a significant risk of legal intervention, damage to reputation and additional costs.
- **Strategic risk:** The strategic risks arise from commercial exposure to loss or theft of intellectual property (IP), threatening market share and position.

Procurement must identify, evaluate and mitigate these risks and develop contingency plans, and must set up a risk management process to monitor and measure exposure, potential mitigation costs and effectiveness. Once

established, effective risk management is sustained throughout the supplier relationship, not just at contract or renewal.

Risks can be reduced by effective procurement through:

- encouraging the proactive monitoring, identification and assessment of supply chain, supplier and supply market risks;
- providing greater end-to-end supply chain data sharing, transparency and visibility for 'early warning' risk identification;
- transparency and trust in individual supplier relationships;
- improving security and continuity of supply;
- rigorous selection of long-term strategic supply chain partners;
- effective management of contracts and supplier performance in order to minimise financial, project, operational and reputational risk;
- encouraging systems integration, reducing risks arising from complexity, incompatibility and coordination issues;
- encouraging supply chain mapping for risk and vulnerability identification;
- end-to-end supply chain visibility, to support corporate social responsibility, sustainability and diversity.

The following case demonstrates efforts to gain visibility and traceability beyond tier two.

Case study – VF Corporation

The firm has mapped its tier-one to tier-four suppliers as part of efforts to improve supply chain sustainability and worker wellbeing by enhancing its traceability mapping programme to trace its supply chain, from raw materials conversion to product distribution. Traceability is key to building an ethical and sustainable supply chain and drives improvements for both people and sustainability in the supply chain.

■ Fraud and corruption risk

There are two main categories of fraud:

- 1 Removal of funds or assets:
 - theft of cash or stock;
 - procurement fraud (e.g. collusion over inflated or duplicated invoices);
 - misuse of assets.
- 2 Intentional misrepresentation of the company's financial position:
 - overstating profits;
 - misrepresentation to induce a contract.

The four main preconditions for fraud are:

- 1 **Motive**: a reason why they need money or feel entitled to defraud the organisation.
- 2 There must be **opportunity**: to remove the assets, and to derive gain from them.
- 3 There must be a **failure of internal control** or fraud risk management.
- 4 There must be assets **worth** stealing.

Fraud prevention measures comprise the following:

- clarity around the definition and consequences of fraud;
- creating a well-defined process for dealing with fraud (processing evidence);
- implementing spend analysis techniques for clear visibility, tracking and monitoring and auditing of expenditure.

The UK Bribery Act 2010 covers explanation of bribery, being bribed, bribery of officials and failure of an organisation to prevent bribery on its behalf.

■ Risk mitigation

Research

The following strategies are being pursued post-Covid in order to mitigate risks:

- improved visibility into tier two and three;
- agility in switching suppliers;
- closer collaboration;
- increasing inventory (just-in-case);
- multi-sourcing.

The Chartered Institute of Procurement and Supply (the CIPS) has a **risk index** to understand the risks to which supply chains are exposed (see Chapters 11 and 20 for additional coverage of risk). However, research appears to indicate that there are still difficulties with the perception of procurement. Over half of senior management fail to understand procurement's broader strategic impact, seeing it as negotiating savings, not working strategically; although the top 25 per cent have the highest return on investment in procurement, and perform better at:

- reducing working capital;
- operational efficiencies and cost savings;
- risk management;
- using analytics;
- advanced sourcing methods;
- working with suppliers to improve innovation and risk management.

State-of-the-art procurement has shifted towards becoming a business partner that supports the organisation in achieving the broader enterprise goals.

Let us now briefly introduce a summary of the differences between purchasing and procurement.

Purchasing is:

- reactive – obtaining inputs in response to requests;
- transactional – concerned with processing purchase orders and contracts;
- tactical – focused on short-term processes and goals.

Procurement involves the process of selecting vendors, establishing payment terms, strategic vetting, selection, the negotiation of contracts and actual purchasing of goods. It is concerned with acquiring (procuring) all the goods, services and work that is vital to an organisation. Procurement is, essentially, the overarching or umbrella term within which purchasing can be found.

Procurement is therefore:

- a *wider* term than purchasing, including purchasing, hiring, leasing and outsourcing;
- a *broader process* than purchasing, in that purchasing is described in terms of purchase to pay (P2P) – i.e. purchase order, expediting, receipt of delivery and payment – whereas procurement includes activities *prior* to the act of purchase, such as:
 - identification and definition of a business need;
 - surveying the market to identify potential suppliers and gather intelligence (e.g. availability, price, technology and sustainability);
 - sourcing (identifying and selecting suppliers);
 - negotiation and development of contracts.

and activities *after* the purchase, such as:

- ongoing contract management – ensuring that both sides fulfil their obligations under a contract;
- supplier relationship management, dispute resolution and contract review.
- more proactive, relational (with both internal and external stakeholders), strategic, integrated with other functions (i.e. cross-functional teams CFTs) and aligned with the strategic goals.

Case study – Kraft Heinz (KH)

KH aims to save \$1.2 billion in four years through procurement by changing from cost reduction to continuous improvement, innovation and building ‘true supplier partnerships’ in the following ways:

- 1 **Sourcing excellence:** KH will address unexplored opportunities while strengthening key relationships through digitalisation to address its spend risks and drive efficiency.

- 2 **External manufacturing:** KH is replacing transactional approaches with collaboration to enhance innovation.
- 3 **Procurement centre:** Indirect spend had more than 20,000 suppliers, therefore KH is looking to centralise this spend to ‘ensure proper visibility and control to drive consolidation of spend with contracts, utilising automation to drive price savings’ (e.g. previously similar materials had been bought across the company with a 20 to 30 per cent price difference).
- 4 **Design to value:** KH intends to implement a ‘design to value’ methodology, which would drive value engineering to feed innovation to remove cost out and add value, enabled by strong supplier collaboration with key strategic suppliers, to co-develop initiatives that drive efficiencies, innovation and sustainability (Hart, 2020).

Case study – Ford

Purchasing and supply management for many is now directly linked to their companies’ business strategies and they recognise that it has a real impact on competitive advantage.

Ford Motor Company believes that procurement controls the ultimate profitability of the company.

The procurement cycle

A typical procurement cycle is depicted in Figure 1.1. All companies have a procurement cycle, although it may not be adding value; therefore, we shall show how to ensure that the procurement cycle can add value by evaluating the added value potential at each phase of the cycle.

■ Identify the need

The normal procedure would be to issue a requisition, although, using a materials requirements planning (MRP) system, the identification of the need may instead be signalled by a ‘bill of materials’ (BOM).

Procurement can challenge the need to **add value** by:

- challenging over-specification or unnecessary variation;
- suggesting alternatives that will offer better quality or a lower price;
- ensuring sustainability concerns are considered.

This challenge is a key potential source of added value, since it is designed to minimise waste in the form of unnecessary variation, features, quality, service levels and unnecessary costs.