strategic sourcing

only study guide for MNP3701

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CONTENTS

PREFACE

THE MODULE

Welcome to the module that explores all the intricacies of establishing a world-class supply base of an organisation in an extremely competitive global context! Over the past decade, particularly, the increased understanding and resultant application of strategic sourcing have forced many organisations to overcome the narrow-minded focus on the price of goods and services, and concentrate on the true costs associated with obtaining the resources for an organisation. The efforts employed to source strategically are predictable:

- Assessment of a company's current spend (what is bought where?).
- Assessment of the supply market (who offers what?).
- Development of a sourcing strategy (where to buy what, while minimising risk and costs).
- Identification of suitable suppliers.
- Negotiation with suppliers (products, prices).
- Implementation of new supply structure.
- Track results and restart assessment (continuous cycle).

> Purchasing and supply chain management are aimed at creating value. Value consists of the following components:
>
> *Value = (Quality + Technology + Service + Cycle time) ÷ Price*
>
> Keep this equation in mind while you study through this module. Each study unit contains information on strategies and tools to improve one of these elements of value.

All these aspects will be comprehensively dealt with in this module. Ensure that you systematically work through the study guide and the prescribed book!

THE STUDY MATERIAL

The prescribed textbook for this module is:

Monczka, RM, Handfield, RB, Giunipero, LC & Patterson, JL. 2016. Purchasing and supply chain management. 6th edition. Cengage.

The study guide is divided into four parts: Part 1 provides the introduction to purchasing and supply chain management, whilst part 2 clarifies purchasing operations and structure. Part 3 focuses on strategic sourcing, and part 4 on the strategic sourcing process. There are 10 study units in the module. Each study unit starts with a table of contents and then mentions the learning outcomes and key issues that will be covered in order to realise the

outcomes. The idea is to tell you what the study unit is all about. The learning outcomes are important. You must understand them because they form the core of the study unit.

Each study unit is linked to a corresponding chapter in the prescribed book as follows:

STUDY UNIT	CORRESPONDING CHAPTER IN 5th ed	CORRESPONDING CHAPTER IN 6th ed
1	1	1
2	2	2
3	4	4
4	6	6
5	7	7
6	9	8
7	10	9
8	12	11
9	8	12
10	14	14

We realise that the environment of sourcing and supply professionals in South Africa is sometimes quite different to the challenges of those in other countries. We therefore attempted to provide a fairly detailed theoretical basis with the international textbook and made an effort to apply the theory in the study guide to include sourcing and supply related situations unique to South Africa.

You should also make a point of doing the activities in the study guide. They afford you an opportunity to see how well you know the work in a particular section. The answers to these activities are also provided, so that you can check your responses. You should also do the assessment questions at the end of each study unit because they cover the core issues of each study unit. The icons used in the study guide are self-explanatory and you should use them to help you work your way through the study guide. Keep your tutorial letters safe because they contain important information on assignments, the lecturers' contact details, prescribed books, and so on.

It would be to your advantage to consult other sources in the subject area especially those that deal specifically with strategic sourcing locally. We have included a list of all resources used at the end of the study guide, and advise you to use this as a recommended reading list for your own benefit. You will, however, only be examined on the information contained in this study guide.

THE STUDY PROCESS

As mentioned earlier, the study guide, combined with the prescribed book, will enable you to understand the theory in each study unit if you do the activities for each topic and study unit. You will remember something better if you understand it. We therefore suggest that you always follow the study guide when working through the prescribed book. One of the best ways to ensure that you understand the material is to summarise the theory in your own words. Work through one study unit at a time.

The first tutorial letter which accompanies this study guide contains a proposed study programme that you can follow to ensure that you finish working through all the prescribed sections before the examination. The study programme also makes provision for adequate revision before the examination. If you follow the study programme and work through the study guide and prescribed book carefully, you can rest assured that you will know and understand the work and be able to apply it in practice.

Wishing you every success studying this module!

ICONS USED IN THIS STUDY GUIDE

	**Activity**. These self-assessment activities should be performed in order to develop a deeper understanding of the learning material
	**Study.** The Study icon indicates which sections of the prescribed book you need to study (i.e. learn, understand and practise).
	**Assessment**. The assessment criteria indicate on what aspects of the particular topic or study unit you will be tested/examined and demonstrate that you have mastered the study material (i.e. competence).
	**Mind map**. Mind maps illustrate relationships between various parts of the learning material.
	**Key concepts.** Attention is drawn to certain keywords or concepts that you will come across in the topic or study unit.
	**Learning outcomes**. The learning outcomes indicate what aspects of the particular topic or study unit you have to master (i.e. know and understand).

	**Read.** This icon will direct you to read certain sections of the prescribed book for background information.
	**Feedback.** Feedback is provided on the self-assessment activities.

MODULE FRAMEWORK

The module, STRATEGIC SOURCING (MNP3701), is summarised diagrammatically below.

STRATEGIC SOURCING (MNP3701)

PART 1 INTRODUCTION

Study unit 1 Introduction to purchasing and supply chain management

PART 2 PURCHASING OPERATIONS AND STRUCTURE

Study unit 2 The purchasing process

Study unit 3 Supply management integration for competitive advantage

PART 3 STRATEGIC SOURCING

Study unit 4 Category strategy development

Study unit 5 Supplier evaluation and selection

Study unit 6 Supplier quality management

Study unit 7 Supplier management and development: creating a world-class supply base

PART 4 STRATEGIC SOURCING PROCESSES

Study unit 8 Strategic cost management

Study unit 9 Purchasing and supply chain analysis: tools and techniques

Study unit 10 Contract management

MODULE AIM

The aim of this module is to provide insight into and an understanding of strategic sourcing management.

Learners must be able to

- provide an overview of purchasing and supply chain management
- outline the purchasing process
- explain supply management as a tool for creating competitive advantage
- differentiate between supply management and commodity strategy management
- discuss supplier evaluation and selection
- discuss supplier quality management
- create a world-class supply base
- develop, illustrate and explain the strategic sourcing process model
- discuss strategic cost management
- illustrate and explain contract management

PART 1

INTRODUCTION

Study unit 1

Introduction to purchasing and supply chain management

Study unit 1

INTRODUCTION TO PURCHASING AND SUPPLY CHAIN MANAGEMENT

CONTENTS

STUDY UNIT AIM

The aim of this study unit is to introduce you to purchasing and supply chain management.

STUDY UNIT LEARNING OUTCOMES

After studying this study unit, you should be able to

- put the phrase "a new competitive environment" in perspective
- outline the importance of purchasing
- explain and illustrate the language of purchasing and supply management
- explain how an organisation can achieve purchasing and supply chain benefits
- define the supply chain umbrella
- distinguish between the four enablers of purchasing and supply chain management
- provide an in-depth discussion on the evolution of purchasing and supply chain management

KEY CONCEPTS

- competitive environment
- purchasing
- purchasing and supply management
- supply chains
- value chains
- purchasing and supply chain benefits
- the supply chain umbrella
- enablers
- human resources
- organisational design
- real-time and shared information
- technology capabilities
- measures
- measurement systems
- evolution of purchasing and supply chain management

Study chapter 1 in Monczka *et al.* (2016).

GETTING AN OVERVIEW

Understanding the complex world of purchasing and supply management is no easy task. Gone are the days of sending a simple request to suppliers for competitive bids and then awarding a short-term contract based on price and agreeing with the not too demanding performance measures – usually after a free lunch with the supplier's sales team. Today, managing the purchases of an organisation is defining its own culture: processes have had to become sharper and faster to be able to deliver in ever-tighter competitive environments and has to be managed as a strategic component used to drive maximum competitive advantage.

We will therefore address the new environment in which purchasing, sourcing and supply professionals operate in this study unit, as well as the elevated importance of purchasing. We will continue by explaining the language of purchasing and supply chain management, achieving purchasing and supply chain benefits, the supply chain umbrella and the four enablers of purchasing and supply chain management. We will end the discussion by looking at the evolution of purchasing and supply chain management.

1.1 A NEW COMPETITIVE ENVIRONMENT

Global economic elements, specifically in the finance sector, and events in South Africa, such as the power crisis and unstable political climate, have most organisations on edge. It is important to understand the competitive environment of the modern era in which companies are forced to employ innovative management strategies in order to survive.

Study pages 6 to 8 in Monczka *et al.* (2016).

Consider the following article explaining the global impacts on supply chain management in Africa and South Africa.

"Global impacts on supply chain management in Africa and South Africa"

Gerard de Villiers

The continent of Africa in general – and South Africa in particular – is in the unique position to learn from the Americas, Europe and the East, but implement or customise whatever works best for the continent.

The continent consists of 53 countries, served by about 60 functioning ports around the coastline. The logistics infrastructure ranges from well-developed First World standards to very rudimentary Third World basic services. Most of the better development is along the coastal cities and ports and in some development corridors that stretch into the hinterland.

Africa has challenges in supply chain management that are in some ways similar to the rest of the world, but in many ways very different. This is a brief overview of the peculiar challenges and solutions to ensure that Africa will indeed succeed. Africa suffers from a massive logistics infrastructure constraint due to very few navigable rivers, large areas in the tropical zone with high concentrated rainfall and the resulting high cost of infrastructure provision and maintenance. The original borders have been moved during the colonisation years and this left many traditional groups of people divided into small hostile units in landlocked countries.

About 10 per cent of the land in Africa is within 100 km of the coast, compared to 18 per cent in Europe. Only 21 per cent of Africa's people live within 100 km of the coast, compared to 69 percent in Europe. This has resulted in Africa having the world's highest relative logistics costs (due to poor infrastructure) estimated at around 250 per cent the global average. However, Africa's resources potential could be realised through integrated 'development corridors' (spatial development initiatives).

Nicky Oppenheimer, chairman of the De Beers Group, gave an address at the Royal United Services Institute for Defence and Security Studies in 2007 in London, on why he believes Africa will succeed, despite all these negative factors.

He started with highlighting some of the specific challenges in Africa: it is one of the most food insecure parts of the world; 250-million Africans living in urban slums; Africa accounts for nearly two-thirds of global HIV/Aids cases; under one quarter of those living in sub-Saharan Africa has access to electricity; there has been a two-fold rise in continental poverty in Africa over just the past three decades; half of Africans are under the age of 20 and just 10 per cent older than 50, which implies that 15-million jobs are required annually. This is indeed a challenging scenario.

But Oppenheimer suggested that Africa will nevertheless succeed because of the continental economic growth of 5,8 per cent in 2006, despite a dip in overall development spending, general decline in conflict within Africa and political success stories in Rwanda, Liberia and South Africa. He mentioned that 25 years ago there were only three democracies (Botswana, Senegal and Mauritius) while now more than 40 countries have held multi-party elections. There are new players in Africa, namely China, India, Russia and

Brazil, and Africa is catching up on globalisation, a good example being the growth in cellular communications. According to Oppenheimer, there are some rules that apply to governments and investors alike, though, to ensure the continued African success. They should beware those bearing gifts, use aid as a growth catalyst (investment in infrastructure), and ensure market access.

A differentiated view of Africa is important as not all countries experience the same challenges; Africa should avoid bad policy choices and needs to deal with conflict as nobody would like to invest in nations at war. Our future generations should take care for the environment, business in Africa should act as a good corporate citizen, Africa should manage its natural resources and we need serious investment in the development of appropriate skills and technology.

South Africa, located at the most southern part of the African continent, probably has the best logistics infrastructure on the continent, but a serious location disadvantage. Our top five trading partners are the United States, Germany, Belgium, Japan and Australia, which are located in the furthest corners of west, north and east, relative to South Africa. This has a devastating effect on supply chain costs as we have to produce or manufacture at a significantly lower price. Africa suffers from a massive logistics infrastructure constraint due to very few navigable rivers, large areas in the tropical zone with high concentrated rainfall and the resulting high cost of infrastructure provision and maintenance. The original borders have been moved during the colonisation years and this left many traditional groups of people divided into small hostile units in landlocked countries.

The 2008 supplychainforesight survey, published by TerraNova and sponsored by Barloworld Logistics, reported that South Africa rated 24th among 150 countries overall for its logistics performance, based on a 2007 World Bank Report. The survey found that skills and capabilities of supply chain staff are two of the most consistent challenges of the entire sample group, with a market increase in the use of outsourcing as a route to competitive advantage.

Recruitment and the use of external consultants are seen as important short-term methods of bolstering skills levels, while education is seen as the main action to address the skills shortage in the medium term. South African companies show a low level of confidence in the reform of Transnet, the state-owned railroad and ports company, as well as in the National Industry Policy Framework, which confirms that urgent dialogue with government is required.

The 2007 State of Logistics Survey for South Africa, published by the CSIR and sponsored by Imperial Logistics, found from a macro-level perspective that logistics costs for 2006 were slightly lower at 15,7 per cent of GDP, than the 16,2 per cent in 2005. However, land freight transport increased 5,5 per cent to 1,5 billion ton in 2006. The South African ports are important gateways into Africa but unfortunately experience serious congestion.

From an industry-level perspective the survey found an increased use of third-party logistics service providers (3PLs) when operating across borders. Border-post delays proved to be the main challenge for road transport. South Africa has great potential to become the logistics hub for the Southern Africa Development Community (SADC) as it contributes 67 per cent of the total GDP of the region. Finally, the survey found that small, medium and micro enterprises need assistance from government to streamline their supply chains.

About 10 per cent of the land in Africa is within 100 km of the coast, compared to 18 per cent in Europe. Only 21 per cent of Africa's people live within 100 km of the coast, compared to 69 per cent in Europe. This has resulted in Africa having the world's highest relative logistics costs (due to poor infrastructure) estimated at around 250 per cent the

global average. However, Africa's resources potential could be realised through integrated "development corridors" (spatial development initiatives).

In conclusion, it is clear that Africa – and South Africa – will succeed. There are huge opportunities but also huge challenges, such as the serious lack of skilled resources, high costs of domestic and regional supply chains and highly neglected or insufficient infrastructure. Globalisation is receiving attention but remains a serious threat and although life is tough in Africa, it is highly rewarding!"

Source: http://www.logisticsnews.co.za/ArticleDetail.aspx?ID=99

1.2 WHY PURCHASING IS IMPORTANT

It is clear from section 1.1 that organisations are operating in changed economic conditions. A sagging economy is colouring the view of business experts as they struggle to increase customer value by improving performance – and is forcing them to elevate the importance of the purchasing, sourcing and supply management approach. Why? It's one of the few functional areas with the ability to have a positive impact on the bottom line and to make a difference now – today!

Study pages 8 to 11 in Monczka *et al.* (2016).

How does this apply to organisations in South Africa? In this challenging environment that we are experiencing worldwide, purchasing, sourcing and supply initiatives that are underway should be continued. New initiatives may prove to be more challenging. Existing suppliers will carefully guard the business they have and lack the willingness to cut into margins. Potential suppliers may be less aggressive. It's very likely that current suppliers will be focusing on cash flow by ensuring that customers meet their commitments under existing agreements – volume, spend and otherwise.

When times are good, customers tend to make aggressive commitments in return for improved pricing or discounts. With cuts in spending they will be faced with falling short. Companies will need all the purchasing, sourcing and supply expertise that they can muster to avoid defaulting under these conditions. Fulfilling obligations may require restructuring agreements through strong negotiations skills and non-traditional thinking.

On the flip side, if you are exceeding contractual commitments, now is the time to approach suppliers to improve their conditions. It's very realistic to take a position that, since you are exceeding contractual commitments, you can reduce the associated volume directed to that supplier. Most suppliers won't want to put your business at risk. Purchasing, sourcing and supply professionals can apply their expertise to restructuring an agreement for increased benefit in the form of increasing discounts, or banking the volume for later use.

1.3 UNDERSTANDING THE LANGUAGE OF PURCHASING AND SUPPLY CHAIN MANAGEMENT

Purchasing, sourcing and supply professionals are often misunderstood as they seem to speak a language all of their own. This is often, to the exclusion of the Board of an organisation, the engineers contributing on the technical aspects and even the internal customer that they are supposed to serve effectively and efficiently. The Chartered Institute for Purchasing and Supply (CIPS) (UK) believes that the purchasing, sourcing and supply management function should avoid the use of jargon and provide an explanation every time it is necessary to use an ambiguous term. It is important that when promoting purchasing, the purchasing, sourcing and supply management professional designs supporting literature according to the set language choice; and attempts to facilitate their interpretation by logical and consistent use of terminology.

Equally, the purchasing, sourcing and supply function should select an appropriate expression for their service used throughout the organisation and preferably by suppliers and customers as well. Different expressions mean different things – for example, the term "procurement", "purchasing" and "supply" are often used interchangeably; but not necessarily in the correct manner.

Study pages 11 to 17 in Monczka *et al.* (2016).

We suggest that you start this section be reviewing exhibit 1.3 and 1.4 in the prescribed book! These exhibits illustrate the simple supply chain of a cereal manufacturer and the more involved supply chain of an automotive supply chain. This will provide you with a basic idea of what a supply chain is; what organisations are involved; and what material and information flows are of importance.

1.4 ACHIEVING PURCHASING AND SUPPLY CHAIN BENEFITS

Study pages 17 to 20 in Monczka *et al.* (2016).

The prescribed book highlights that purchasing and supply chain benefits are real and measurable by relating the success of the Apple computer.

Activity 1.1

Do a literature search (magazines, journals or the Internet) and discover more examples of organisations achieving measurable purchasing and supply chain benefits. Include South African organisations in your answer.

Feedback

Consider the following articles. The most important aspects relating to purchasing, sourcing and supply management are highlighted. Read through the examples and compare the benefits achieved by the organisations with those that you found.

"Cement demand expected to remain 'reasonably' resilient – PPC".

Chanel Pringle
26 January 2009

Regional demand for cement would remain "reasonably resilient", despite the economic slowdown, Pretoria Portland Cement (PPC) chairperson Bheki Sibiya said on Monday, adding that **the company's new production capacity and established footprint would allow it to take advantage of any tight supply situations.**

In a speech delivered its annual general meeting, Sibiya stated that this was in line with some economists' expectations that gross fixed capital formation, as a percentage of gross domestic product, would increase during the year. South Africa's fixed capital formation has reached the 23% mark last year, up from a low of 14,7% in the early 1990s. The country is targeting a ratio of 25% by 2014. "South Africa will inevitably feel some of the effects of the international economic slowdown and it is therefore difficult to give a definitive outlook for the year," he said, adding that the company expected current and future infrastructure projects to boost the demand for cement.

Sibiya stated that the company would continue to review any potential opportunities in South Africa, as well as export opportunities, while it would continue to increase its production and supply networks. Regional industry cement volumes for the first quarter of the 2009 year had declined by 8,2%, while cement volumes for the 2008 calendar year had been down 3,9%, reported PPC.

The producer noted that inland cement sales were constrained in November and December owing to production problems experienced by competitors, which led to a cement shortage. **Subsequently, PPC had benefited from additional sales, but experienced some periods of stock-outs.** Sales volumes in Mpumalanga had increased by 8% and in Botswana by 14%, boosting the company's overall sales, while volumes in the Western Cape were "disappointing".

Meanwhile, Sibiya noted that production at the 1,25-million Dwaalboom kiln was progressing, with 90 000 tons of cement having been produced in December. The expansion project was started in 2006 and had been completed within the R1,4-billion budget in September last year. The Hercules mill project was also on schedule, while the environmental impact assessment process for the Riebeeck plant was under way. **PPC has been upgrading a number of its cement plants over the past few years to ensure improvements in production and environmental conditions.**

Source: http://www.engineeringnews.co.za/article/cement-demand-expected-to-remain-reasonably-resilient-ppc-2009-01-26

"Renault to unveil SA-manufactured Sandero in Feb".

Irma Venter

26 January 2009

Renault South Africa will launch its first locally produced vehicle in more than three decades in February. The Sandero hatchback is **the result of a R1-billion investment by the Renault-Nissan alliance, with the new vehicle being built on a refurbished assembly line at the organisation's Rosslyn plant, in Tshwane.**

"The Sandero is a key model in our range revitalisation strategy," says Renault South Africa MD Xavier Gobille, "but it is also a vital addition to the mostly staid and outdated entry-level sector – a sector in dire need of a thoroughly modern, safe, stylish and spacious contender."

Renault has started the Sandero's pricing at below the R100 000 mark, and says it expects the arrival of the "robust, attractive Sandero to revolutionise the local entry-level market". **"We want to bring the Sandero within reach of a wide and varied motoring audience seeking affordability without having to compromise on safety, quality, practicality and comfort," says Gobille. "Local manufacture has allowed us to offer an extraordinary motoring package." As a locally produced model, the Renault Sandero is expected to benefit from local parts sourcing, which should have a favourable impact on pricing and availability.**

"The Renault Sandero range will initially be offered with a choice of 1,4 l and 1,6 l petrol engines, producing 55 kW and 64 kW respectively. Consisting of five versions at launch, a further three variants will grow the Sandero range during the remainder of the year. The Renault Sandero range will be unveiled to the media in late February, and is scheduled to reach dealer showrooms in early March. Sales for Renault in South Africa reached 8 143 units in 2007, dropping by 50% to 4 082 units last year. Gobille predicts sales of more than 10 000 units for 2009."

Source: http://www.engineeringnews.co.za/article/renault-to-unveil-samanufactured-sandero-in-feb-2009-01-26

1.5 THE SUPPLY CHAIN UMBRELLA

Study pages 18 to 20 in Monczka *et al*. (2016).

A large set of activities is included in the supply chain management approach. They include:

- inbound transportation
- quality control
- demand and supply planning
- receiving, materials handling and storage
- materials or inventory control
- order processing
- production planning, scheduling and control
- warehousing/distribution

- shipping
- outbound transportation
- customer service

1.6 FOUR ENABLERS OF PURCHASING AND SUPPLY CHAIN MANAGEMENT

Excellence in purchasing, sourcing and supply chain management is not an easy task! Organisations that achieve the promised benefits of ensuring effective and efficient supply to their customers, usually invest resources in establishing the following four enablers of purchasing, sourcing and supply management:

- Capable human resources
- Proper organisational design
- Real-time and shared information technology capabilities
- Right measures and measurement systems

Study pages 20 to 24 in Monczka *et al*. (2016).

We suggest that you start the section by reviewing exhibit 1.6 in the prescribed book. Exhibit 1.6 depicts the four pillars with examples.

1.7 THE EVOLUTION OF PURCHASING AND SUPPLY CHAIN MANAGEMENT

The changes that have affected purchasing over the last 15 years are greater than those of the previous 150 years. To appreciate how we arrived at where we are today requires a brief understanding of the evolution of purchasing and supply chain management, although some might argue the last 15 years resembled a revolution. This evolution covers seven periods:

- Period 1: The early years (1850–1900)
- Period 2: Growth of purchasing fundamentals (1900–1939)
- Period 3: The war years (1940–1946)
- Period 4: The quiet years (1947-mid-1960s)
- Period 5: Materials management comes of age (mid-1960s–late 1970s)
- Period 6: The global era (late 1970s–1999)
- Period 7: Integrated supply chain management (beyond 2000)

Study pages 24 to 28 in Monczka *et al*. (2016).

The purchasing function originated as an independent, clerical activity mainly concerned with the processing of orders. The first stage of figure 1.1 depicts the reactive nature of purchasing during this period. Purchasing was not regarded as a vital business function, and was therefore assigned to employees who had neither the skill nor the aptitude to lead this function towards its full contribution to the success of an organisation. Purchas-

ing, however, was responsible for a representative component of the cost of the goods sold, and a large share of business's quality.

As managerial philosophies advanced, the purchasing function acknowledged the continuous interaction between the variables to efficiently realise the organisation's mission and objectives. During the 1960s and 1970s, the purchasing function expanded to also include inventory management. A limited number of purchasing staff were equipped with tertiary education, and the use of automation ensured that production lines functioned smoothly. Despite this, the purchasing function remained mechanical. Purchasers were mainly concerned with the purchase price, the prevention of line shutdowns and the management of inventory. The main focus of this period is depicted in stage 2 of figure 1.1.

Then the world of purchasing changed. Purchasing management became a proactive concept, as illustrated in stage 3 of figure 1.1. Training and education were offered to equip professional staff to meet the demands of the challenge posed by the constantly fluctuating environment, globalisation, major technological advancements, automation in production processes, outsourcing and inflation. Materials costs increased as a percentage of the cost of goods sold. Firms initiated the growth of the materials management concept during this period combining related functions such as purchasing, inventory control, receiving and warehousing under the authority of one individual.

During the early 1980s, physical distribution management was seen as part of materials management. This became known as logistics management, embracing all movement and warehousing activities from where the materials are purchased, through the transformation process to the final consumer. By the late 1980s, competition became fierce, global firms increasingly captured world market share, the rate of technological advances was unprecedented and the ability to coordinate worldwide purchasing activities increased with the use of global data networks, and the World Wide Web emerged.

The transition was made from tactical purchasing to a more integrated and strategic approach, known as "strategic sourcing", as illustrated in stage 4 of figure 1.1. Supply became a competitive global weapon and supply strategies were integrated with organisational strategies. Strategic sourcing entails a cross-functional process to manage, develop and integrate supplier capabilities to achieve a competitive advantage. The strategic sourcing process is run by a strategic sourcing team (including members from the engineering, quality, design, manufacturing, marketing, accounting, strategic planning or other departments, as needed).

In addition to the evolution of the purchasing function into strategic sourcing, another phenomenon – supply chain management – developed as depicted in figure 1-1. According to one view the evolution of the supply chain management concept could be viewed in terms of organisational integration. This will be discussed in more detail in study unit 3. At first, each business function operated in complete isolation from other business functions. A limited degree of integration between these functions developed, as inbound functions merged to form materials management and outbound functions united to form distribution management. Internal integration between materials management, internal operations and distribution followed. Cross-functional processes were established to link design, quality and cost, and managed by multifunctional teams.

Interest in the concept of supply chain management steadily increased in the 1980s, when organisations realised the benefits of collaborative relationships within and beyond their own borders. External integration saw the incorporation of suppliers, customers and the internal activities of the focal firm (the strongest leading firm in a distribution channel to propel the product through the market), as it expanded to include the collaborative activities of all organisations involved in producing a specific product or rendering a specific service. This became known as the "supply chain" of a specific product or service. Organisations became more specialised and sought suppliers who could provide low-cost, quality materials rather than their own sources of supply.

Industry groups now work together to improve the integrative processes of supply chain management and accelerate the benefits through successful implementation. This entails activities such as the establishment of multifunctional or multiorganisational teams, strategic relationships or alliances, management of processes, business process re-engineering, total cost of ownership, customer focus and mutual sharing of risks and rewards.

However, supply chain management developed further as a management philosophy, crossing the boundaries of the chain of organisations that is responsible for transforming raw materials into a final consumer product. The information chain developed, and enabled cross-functional teams from around the globe to coordinate supply chain functions and activities via electronic mobility, such as telephone, fax, e-mail, the internet and the World Wide Web. This became known as virtual supply chain management.

From the above discussion it is clear that the purchasing function developed from a clerical function to shift the focus to sourcing strategically aligning with the organisational objectives, which in turn became an integrated part of the broader supply chain management approach.

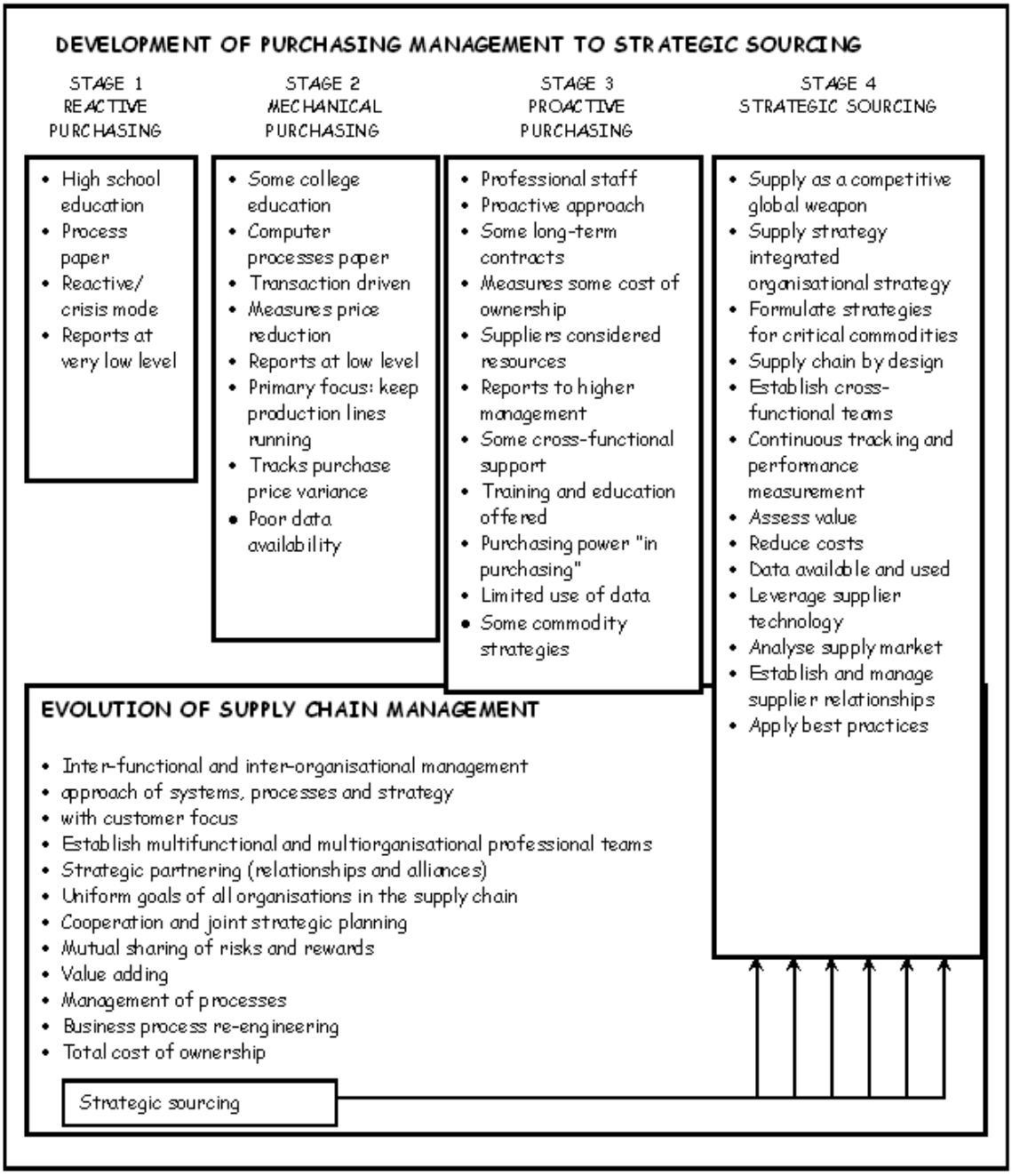
GOOD PRACTICE EXAMPLE: TAKING AN ENTREPRENEURIAL APPROACH TO PURCHASING AT BABSON COLLEGE

Read pages 29 to 34 in Monczka *et al.* (2016).

CONCLUSION

A vast amount of literature has emerged on the theory and practice of purchasing, strategic sourcing and supply chain management, and the topic continue to provide scope for a considerable amount of research and publication. Make sure that you understand all the concepts explained, before proceeding to study unit. Consult alternative sources if you need to clarify some aspects. Use the reference list provided at the end of the study guide as a guide.

FIGURE 1-1: The development of purchasing into strategic sourcing, and the evolution of supply management



Source: Adapted from Burt *et al*. (2010:18)

Good theory, however, only becomes valuable if it is mirrored in practice. Be alert in order to identify indicators in your business interactions that emphasise the new environment in which purchasing, sourcing and supply professionals operate as explained in this study unit, as well as those focussing on the elevated importance of purchasing. Establish a language of purchasing and supply chain management, in your organisation if it does not already exist and use your new knowledge, of the supply chain umbrella and the four enablers of purchasing and supply chain management, to assist in the achievement

of purchasing and supply chain benefits. Make sure that you understand the different periods of development of purchasing and supply chain management.

We will outline the variables influencing purchasing operations and structure in part 2 of this study guide, starting with the purchasing process in study unit 2.

ASSESSMENT

(1) Put the phrase "a new competitive environment" in perspective.
(2) Outline the importance of purchasing.
(3) Explain and illustrate the following concepts of purchasing and supply management:

- *Purchasing*
- *Supply management*
- *Supply chain organisation*
- *Supply chain management*
- *Value chain*
- *Extended value chain*
- *Supply chain*

(4) Explain how an organisation can achieve purchasing and supply chain benefits.
(5) List the activities that are part of the supply chain umbrella.
(6) Discuss the enablers of purchasing and supply chain management by using the following sub-headings:

- *Capable human resources*
- *Proper organisational design*
- *Real-time and shared information technology capabilities*
- *Right measures and measurement systems*

(7) Provide an in-depth discussion on the seven periods that make up the evolution of purchasing and supply chain management.

Also attempt to answer the discussion questions on pages 34 to 35 Monczka *et al. (2016).*

PART 2

PURCHASING OPERATIONS AND STRUCTURE

Study unit 2

The purchasing process

Study unit 3

Supply management integration for competitive advantage

Study unit 2

THE PURCHASING PROCESS

CONTENTS

STUDY UNIT AIM

The aim of this study unit is to provide you with an overview of the purchasing process.

STUDY UNIT LEARNING OUTCOMES

After studying this study unit, you should be able to

- list and explain the purchasing objectives
- list and explain the purchasing responsibilities
- explain the procure-to-pay process
- distinguish between the various types of purchases
- suggest ways to improve the purchasing process

KEY CONCEPTS

- purchasing objectives
- supply continuity
- manage the purchasing process efficiently and effectively
- supply base management
- aligned goals

- internal functional stakeholders
- organisational goals and objectives
- integrated purchasing strategies
- organisational strategies
- Broad-Based Black Economic Empowerment
- preferential procurement practices
- Constitution of South Africa (Act 108 of 1996)
- Preferential Procurement Policy Framework (Act 5 of 2000)
- Historically Disadvantaged South Africans
- Broad-Based Black Economic Empowerment Act (Act 53 of 2003)
- purchasing responsibilities
- primary contact with suppliers
- awarding purchase contracts
- e-procurement
- the procure-to-pay process
- forecast and plan requirement
- needs clarification
- requisitioning
- supplier identification
- supplier evaluation
- supplier selection
- approval, contract, and purchase order preparation
- receipt and inspection
- invoice settlement and payment
- records maintenance
- supplier performance measurement
- supplier performance management
- re-engineering the procure-to-pay process
- types of purchases
- raw materials
- semifinished products and components
- finished products
- maintenance, repair, and operating items
- production support items
- services
- capital equipment
- transportation and third-party purchasing
- online requisitioning systems
- procurement cards
- electronic purchasing commerce
- longer-term purchase agreements
- online ordering systems
- purchasing process redesign
- electronic data interchange
- online ordering
- electronic catalogues
- contact suppliers directly

Study chapter 2 in Monczka *et al*. (2016).

GETTING AN OVERVIEW

If we take a minute to reflect on study unit 1, we remember that **purchasing** is considered as a functional group concerned with performing many activities that make up the formal process of buying goods and services in order to ensure it delivers maximum value to the organisation. The purchasing process can vary from one organisation to another – but there are some key elements that are common throughout. The process usually starts with a demand or requirement – this could be for goods or services. The process then continuous with the evaluation of that need, the identification of suppliers, the discovery whether the need has been met, subsequent prompt payment, and a drive for continuous improvement.

Let us now turn our attention to the key objectives and responsibilities of the purchasing function. You will be able to appreciate the intricacies involved in the purchasing process and the role e-procurement tools play in the process. The section continues to highlight the different types of purchases to be made. Finally, the various ways in which organisations are seeking to improve the purchasing process are addressed.

2.1 PURCHASING OBJECTIVES

The objectives of a world-class purchasing organisation move far beyond the traditional belief that purchasing's primary role is to obtain goods and services in response to internal needs. To understand how this role is changing, we must understand what purchasing is all about, starting with the primary objectives of a world-class purchasing organisation. They include:

- Objective 1: supply assurance
- Objective 2: manage the sourcing process efficiently and effectively
- Objective 3: supplier performance management
- Objective 4: develop aligned goals with internal functional stakeholders
- Objective 5: develop integrated purchasing strategies that support business goals and objectives

Study pages 42 to 44 in Monczka *et al*. (2016).

In South Africa, a seventh objective of the purchasing function of any organisation can be added. This is to address black economic empowerment.

- Objective 6: address Broad-Based Black Economic Empowerment

Empowering disadvantaged groups through preferential procurement practices is by no means a uniquely South African phenomenon. Many progressive purchasing and supply organisations across the globe have developed and implemented diversity programmes whose objectives are to ensure that diversity suppliers receive a reasonable share of the purchasing organisation's business. Synonyms for the programmes used in different countries are "supplier diversity", "minority supplier development", "ethnic minority suppliers",

"disadvantaged business buying programmes", "affirmative purchasing programmes" and "preferential procurement".

In a baseline study conducted by the Institute for Supply Management, 29 per cent of the respondents acknowledged that they, to a good, great or very great extent, have a diversity programme in place. The establishment of such supplier diversity, minority business or ethnic empowerment programmes in buying organisation worldwide, is commonly the result of (1) executing corporate responsibility; (2) supply base broadening with the aim of mirroring the changes in the buying organisation's customer base; (3) complying with government prescriptions associated with the allocation of a certain percentage spend to diversity suppliers; (4) alleviating the fear of economic boycotts by diversity groups; (5) complying with diversity requirements passed down from higher tier customers; and (6) realising that diversity suppliers provide products and services competitive with those of non-diversity suppliers.

In general, diversity suppliers are defined as those suppliers that have challenges in becoming successfully established and gaining economic representation proportional with their demographic representation. Usually, this includes minority groups represented in a specific country and women-owned businesses. In South Africa, however, the opposite is true. It is well known and accepted that the Apartheid regime, systematically and purposefully restricted the majority of South Africans from meaningful participation in the economy. The result is an economic structure that today, in essence, still excludes the vast majority of South Africans. The period since 1994 has seen the South African economy undergo profound restructuring, and ten years of consistent economic growth has been documented. The South African economy is the most developed and prosperous on the continent of Africa; endowed with massive resources; well established with first world infrastructure; and is managed by a progressive and popularly elected democratic government.

Despite this, entrenched inequalities continue to characterise the economy and act as deterrent to optimal economic development. From 1996 the Constitution of South Africa (Act 108 of 1996) made provision for the implementation of preferential procurement practices in section 217, whereby organs of the state in the national, provincial or local sphere of government are compelled to procure goods or services in accordance with a system which is fair, equitable, transparent, competitive and cost-effective. From that point on the South African government issued a drive for public sector procurement reform, leveraging its purchasing power in support of its economic policy objectives. Hence, the Preferential Procurement Policy Framework (Act 5 of 2000) was established to give effect to section 217 of the Constitution. This framework allows for preference to be given to Historically Disadvantaged South Africans (HDSAs), defined in the Mining Charter as any person, category of persons or community, disadvantaged by unfair discrimination before the Constitution came into operation, by implementing a point system (based on price and preference to target groups) to be used in the awarding of tenders in the public sector. Preferential procurement may, for the purpose of this paper be defined as an active attempt on the part of organisations to purchase the materials and services they require from businesses belonging to HDSAs.

This policy forced the procurement process of all the different organs of state to be more inclusive by allowing competitive advantage for businesses owned by HDSAs. Equity ownership and management participation are among the main principles applied during the evaluation of tenders as required by the Preferential Procurement Policy Framework Act. These measures ensure that public tenders are more accessible to HDSAs, as large tenders were divided into smaller tenders to allow smaller HDSA businesses to compete more effectively. The changing view of procurement by the South African government led to many South African organisations establishing procurement policies and procedures promoting preferential procurement.

Yet, these regulations are only enforceable when organisations trade within the public sector. The South African government's influence within the private sector is confined to orderly regulations and the encouragement of equal opportunity for all citizens through a complementary and supportive role. The lack of participation of the private industry stakeholders resulted in a slow rate of transformation within the broad economy, and predominantly white-owned organisations remain in control. Empowerment, in the South African context, allows HDSAs or business owned by HDSAs to (1) become involved; (2) obtain knowledge; (3) acquire a sense of worth and authority; (4) take ownership and responsibility; and (5) achieve success.

Black Economic Empowerment (BEE) has at its aim to develop comprehensive strategies to create increasing access to productive assets while simultaneously ensuring the productivity of those assets by promoting new opportunities for and increased participation of black people in ownership, management and control thereof. There is a tendency in South Africa to define Black Economic Empowerment narrowly and focus on the entry and transaction activities of black people in business, especially what is commonly referred to as BEE investment companies. The consequence has been a continuous exclusion of black people from broad-based financial and economic resources since 1994.

Subsequently, the South African government has outlined broad economic strategies to transform the economy by 2014. One of these strategies involves the achievement of Broad-Based Black Economic Empowerment (BBBEE) and the deracialisation of the South African economy. This lead to the Broad-Based Black Economic Empowerment Act (Act 53 of 2003) with the aim of setting goals for transformation pertaining to BEE in both the public and private sector, and the results envisioned include (1) more black South Africans who have ownership and control of existing and new enterprises, (2) a significant increase in the number of black, black-empowered and black-engendered enterprises; and (3) accelerated and shared economic growth (Fourie 2005).

Following the misalignment between the Preferential Procurement Policy Framework Act (Act 5 of 2000 (PPPFA) and the Broad-Based Black Economic Empowerment Act (Act 53 of 2003 (B-BBEEA) the South African Cabinet directed in 2008 that these should be reviewed such that alignment exists with the set objectives. The approach to the alignment of the objectives of the two acts was agreed upon by the National Treasury and the Department of Trade and Industry. Currently, the PPPFA regulations are incorporated as an integral part of the broader regulations on Supply Chain Management that had been issued in terms of the PFMA.

Against this background certain provisions were included in the recommendations that were submitted to the South African Cabinet during May 2008 for the review of the PFMA; where these provisions were intended to repeal the current PPPFA and give effect to the alignment of the two acts in the reviewed PFMA and its new supporting regulations. Cabinet resolved that further consultation should take place between the Minister of Finance and the Minister of Trade and Industry.

The South African Cabinet further directed that the Minister of Finance gives consideration to and submits proposals in the possible establishment of a centrally located Compliance Office to monitor procurement compliance at all spheres of government. In this regard, the National Treasury has commenced with certain initiatives to give effect to Cabinet's directive. This monitoring of procurement compliance is consistent with National Treasury's power to monitor and assess prescribed norms and standards.

2.2 STRATEGIC SUPPLY MANAGEMENT ROLES AND RESPONSIBILITIES

We suggest that you start this section by reviewing exhibit 2.2. This section in the prescribed book highlights the span of control in which purchasing functions in on organisation. This includes:

- spend analysis and demand management
- evaluating and selecting suppliers
- acting as the primary contact with suppliers
- determining the method of awarding purchase contracts
- managing of supplier relationships
- establishing of supply management strategy

Study pages 45 to 51 in Monczka *et al*. (2016).

2.3 IMPROVING THE PROCURE-TO-PAY PROCESS

Purchasing processes will vary from organisation to organisation. Using the Internet search engine Google – you can view diagrams of 3 710 000 different purchasing processes at the touch of a button! But the efficacy with which an organisation executes this process will often result in the competitive advantage gained by the organisation. Today, many purchasing, sourcing and supply professionals are leaning towards the design and application of the purchasing process as purely a technological solution. Although there are wonderful hi-tech tools that can be utilised by any organisation willing to pay for it, the tool alone will not drive purchasing – and certainly not the supplier relationship management concept – in an organisation. It is imperative to launch a purchasing management course of action within the buying organisation, contemplate the tangible procedure and then only continue to choose and procure a tool if it would ease the implementation and endurance of the designed process.

In this section we will evaluate a generic process that can be implemented by an organisation to achieve an effective and efficient purchasing process employed when someone within the organisation requires any goods or services. The following steps are included in the discussion:

- forecast and plan requirement
- needs clarification: requisitioning
- supplier identification and selection
- contract and purchase order preparation
- receipt and inspection
- invoice settlement and payment and measurement of performance

Study pages 50 to 65 in Monczka *et al*. (2016).

This is an extremely practical discussion and even includes examples of some of the documents used in the process. You should be well versed in the procure-to-pay process after studying this section!

2.4 THE PURCHASING PROCESS AFTER SUPPLIER SELECTION

The purchasing process (after supplier is selected) is concluded by different steps or approaches, depending on the type of system in place. The prescribed book discusses the following steps and documents:

- purchase order
- blanket purchase order
- material purchase release
- receipt and inspection
- material packing slip
- bill of lading
- receiving discrepancy report
- invoice settlement and payment
- record maintenance
- manage and measure supplier performance
- re-engineer the procure to pay process

Study pages 65 to 73 in Monczka *et al*. (2016).

2.5 TYPES OF PURCHASES

An organisation requires many different goods or services. The considerations that apply to purchasing these items or services can be contrasted according to the nature of the product or service, the types of production involved and the principal uses to which

the purchased item or service will be put. Fundamentally, we can distinguish between consumer, industrial, and resale products, as well as services.

- *Consumer* products are goods purchased by individuals and households for personal consumption.
- *Industrial products* are purchased by organisations for use in the manufacture of other products to make profits or achieve other objectives.
- *Resale products* are those purchased by organisations in order to resell them at a profit.
- *Services* include the performance of duties or provision of space and equipment helpful to others.

This section of the prescribed book is concerned with industrial products, and they can be categorised as follows:

- raw materials
- semifinished products and components
- finished products
- maintenance, repair, and operating items
- production support items
- services
- capital equipment
- transportation and third-party purchasing

Study pages 74 to 76 in Monczka *et al*. (2016).

2.6 IMPROVING THE PURCHASING PROCESS

Most companies spend too much time and too many resources managing the ordering of goods and service, particularly lower-value items. Some purchasing departments spend 80 per cent of their time managing 20 per cent of their total purchase budget. The prescribed book suggests the following ways of improving the purchasing process, particularly low-value purchases:

- online requisitioning
- procurement cards
- e-procurement
- longer-term purchase agreements
- cloud-based ordering systems
- purchasing process redesign
- EDI
- online ordering through electronic catalogues
- users contact suppliers directly

Study pages 76 to 82 in Monczka *et al*. (2016).

Read the example on the deployment of Procure-to-Pay Systems on pages 82 to 83 in Monczka *et al*. (2016).

CONCLUSION

Although the purchasing process seems relatively simple, the application thereof is an intricate balance of finding the right harmony between mapping the physical process and identifying the optimal technology to support it. In order to assist you in understanding this, we focussed on the key objectives and responsibilities of the purchasing function in this study unit. You should now be familiar with the purchasing process and the role e-procurement tools play in the process, as well as highlight the different types of purchases to be made. Finally, you should be able to make helpful suggestions regarding the various ways in which organisations can improve the purchasing process.

We will focus on supply management integration as a tool for creating competitive advantage for an organisation in study unit 3.

ASSESSMENT

(1) List and explain the six purchasing objectives.
(2) List and explain the purchasing responsibilities.
(3) Explain the procure-to-pay process. Use a diagram to substantiate your answer.
(4) Distinguish between the following types of purchases, and provide an example of each:

- *raw materials*
- *semifinished products and components*
- *finished products*
- *maintenance, repair, and operating items*
- *production support items*
- *services*
- *capital equipment*
- *transportation and third-party purchasing*

(5) Suggest ways to improve the purchasing process.

Also attempt to answer the discussion questions on pages 84 to 85 of Monczka et al. (2016).

Study unit 3

SUPPLY MANAGEMENT INTEGRATION FOR COMPETITIVE ADVANTAGE

CONTENTS

STUDY UNIT AIM

The aim of this study unit is to introduce you to supply management integration.

STUDY UNIT LEARNING OUTCOMES

After studying this study unit, you should be able to

- define the concept "integration"
- list and explain supply management's internal communication flows and linkages

- list and explain the supply management's external communication flows and linkages
- explain what collaborative buyer-supplier relationships entail
- list the advantages of buyer-supplier relationships
- list the obstacles of buyer-supplier relationships
- explain what the critical elements of supplier relationship management are
- identify the critical role of cross-functional sourcing teams
- compile a checklist of the benefits from the cross-functional team approach
- identify potential drawbacks from the cross-functional team approach
- know when to form a cross-functional team
- identify and explain ways to improve sourcing team effectiveness
- provide an in-depth discussion on integrating supply management, engineering and suppliers to develop new products and services

KEY CONCEPTS

- integration
- internal integration
- external integration
- collaborative buyer-seller relationships
- supplier relationship management
- cross-functional sourcing teams
- sourcing team effectiveness
- new product development
- successful supplier integration efforts
- customer order fulfilment
- supplier suggestion programmes
- buyer-seller improvement teams
- on-site supplier representative

Study chapter 4 in Monczka *et al*. (2016).

GETTING AN OVERVIEW

Read the case studies on pages 115 to 118 of Monczka *et al*. (2016).

Both these cases demonstrate the consequences of the risks associated when purchasing and supply management attempts to function in isolation. And both hint at organisations' persistent difficulties with developing and managing purchasing and supply models that can help balance the rewards of doing business with the risks of doing so. It is a fact: purchasing and supply management will never have a positive impact on the performance of an organisation if it continuously operates in its own vacuum.

We saw in figure 1.1 that purchasing management in the past few decades developed in four stages: from reactive purchasing to mechanical purchasing to proactive purchasing and was finally labelled as strategic sourcing. If we take a closer look at the diagram, we see that purchasing was distinguished as bureaucratic department processing paper and reporting at a very low level. This changed, however, and the purchasing and supply function is seen in stage 4 as a competitive global weapon, with a specifically designed supply strategy which is integrated with the organisational strategy, in order to assess value, reduce costs and apply best practices within managed buyer-seller relationships.

Reading between the lines we see that none of the above will be possible if there are not constant communication flows and linkages between purchasing, sourcing and supply professionals and their internal and external stakeholders. To make today's supply chains successful, companies will need to take a holistic approach to their operations model – one that brings together the worlds of product, market growth, and operations strategy. It is not a simple approach. But it is a rewarding and necessary one where, for many, survival may be at stake. In this study unit we will therefore be looking at integration – internally and externally. The focus will be on the critical roles of buyer-supplier relationships and cross-functional teams. You will also learn to value the integration of supply management, engineering, and suppliers to develop new products and services.

3.1 INTEGRATION: WHAT IS IT?

The good news is that purchasing, sourcing and supply best practices can work for any organisation that wants to eliminate waste, improve quality, move more quickly, and make dollars go further. No two organisations are alike, and no two organisations will apply these best practices in exactly the same way. Whether a commercial firm, not-for-profit agency, or government entity – every organisation must be guided by its structure, mission, history, culture, and strategic goals.

One aspect that stands out however is the need for any organisation to invest resources in supply integration. The word "integration" has a myriad of meanings, and may refer to

- In sociology and economy:
  - Social integration
  - Racial integration, refers to social and cultural behaviour; in a legal sense, see desegregation
  - Economic integration
  - Regional integration
  - Horizontal integration and vertical integration in microeconomics and strategic management
  - Integration clause, in a contract, a term used to declare the contract the final and complete understanding of the parties
  - Integrated production
- In computer science:
  - System integration, the process by which smaller pieces of software are brought together to form a larger piece of software that was designed to solve a problem

- Digital integration, in computer science, allows data from one device or software to be read or manipulated by another, resulting in ease of use; see also XML
- Enterprise application integration, also known as systems integration, as the use of software and computer systems to bring together a set of enterprise computer applications

In the prescribed book, integration is defined as "the process of incorporating or bringing together different groups, functions or organisations, either formally or informally, physically or by information technology, to work jointly and often concurrently on a common business-related assignment or purpose." Learn more of the manner in which integration occurs by studying the relevant section in the prescribed book!

Study pages 119 to 120 in Monczka *et al*. (2016).

We can see from the above section in the prescribed book that organisations must employ different strategies to bring about supply integration. It is also true that change is seldom easy. Old ways die hard, even when there is wide agreement that change is needed. We have seen organisations struggle helplessly to implement change, and we have seen organisations transformed into powerhouses through their ability to innovate and adapt.

IBM spends about $40 billion a year with suppliers and is a good example of the latter. The company is a multinational computer technology and consulting corporation headquartered in Armonk, New York, United States. The company is one of the few information technology companies with a continuous history dating back to the 19th century. IBM manufactures and sells computer hardware and software, and offers infrastructure services, hosting services, and consulting services in areas ranging from mainframe computers to nanotechnology.

Until the mid-1990s, IBM made most of the parts used in its finished products. Highly vertical and closely guarded, the company went to great lengths to prevent its own suppliers from knowing how their parts were being used or how they fit into overall business strategies. This lack of supply integration was common within the computer industry during the 1970s. So was the need for top-level secrecy. By the 1990s, however, the game had changed. Most of IBM's competitors were reducing costs by outsourcing and integrating their own capabilities with the technological expertise that existed among their suppliers. One day, IBM could no longer compete. Hanging onto the old ways had prevented it from leveraging its huge global purchases, from eliminating waste in its processes, and from taking advantage of innovative thinking.

IBM's story has become a textbook example of how purchasing, sourcing and supply management integration can change an organisation almost overnight. In a few short years, IBM climbed up from a burning platform to a new level – that of a lean, highly integrated company whose hallmarks were speed, efficiency, and innovation. In 1999, the company won Purchasing magazine's medal of Professional Excellence, one of the most respected purchasing awards given.

3.2 INTERNAL INTEGRATION

Purchasing, sourcing and supply managers today face multiple challenges. However, what often causes them the most worry, at least psychologically, is the lack of acceptance and involvement in their own enterprise. When significant business matters are being decided upon, supply management often is not at the table. They are excluded from the decision-making process and, at best, become involved at a later stage when it's time to execute the decisions from a procurement standpoint. More often than not, this involvement comes much too late for the purchasing, sourcing and supply management professionals to approach the relevant supply markets in a truly strategic manner.

Purchasing, sourcing and supply management's absence at the decision-making table and their lack of interaction with other key corporate functions does more than cause the supply manager a lot of mental anguish. It's long been suspected that these factors can also cause massive economic damage to the company. That a more strategically and better integrated supply management function can drive both organisational efficiency and effectiveness is almost universally assumed. But with this assumption comes a dilemma: purchasing, sourcing and supply management's ability to prove its strategic relevance and impact on corporate performance depends on its degree of integration. However, other functions will give up authority and involve supply management only when the positive performance implications resulting from such integration can be verified.

The prescribed book addresses this issue by reviewing supply management's communication flows and linkages with the following departments:

- Operations
- Quality assurance
- Engineering
- Accounting and finance
- Marketing/sales
- Legal
- Environmental management, health and safety

Study pages 120 to 125 in Monczka *et al*. (2016).

3.3 EXTERNAL INTEGRATION

Once an organisations' purchasing, sourcing and supply management function has established their internal communication flows and linkages it is time to move beyond the boundaries of the organisation itself. Supply management represents the external face of the organisation and also serves as the primary vehicle to integrate suppliers and other entities into the organisation.

Study pages 125 to 126 in Monczka *et al*. (2016).

3.3.1 Supply management's external linkages

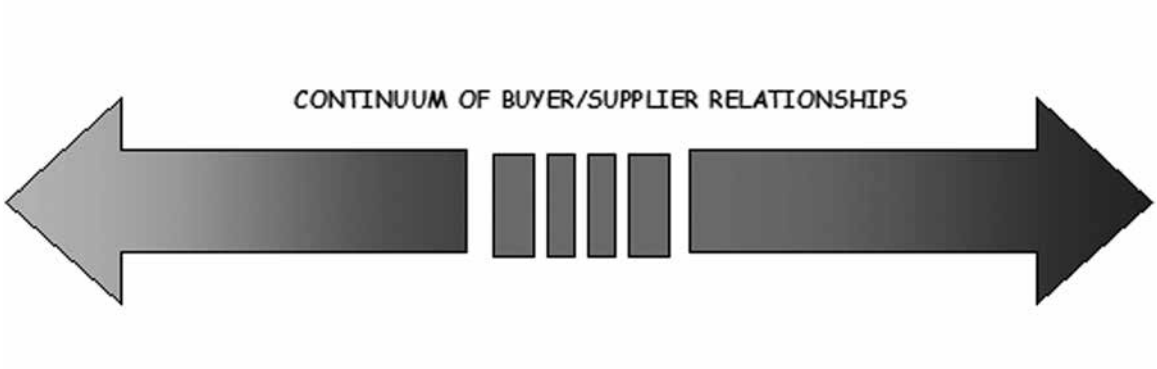
Purchasing, sourcing and supply management acts as a liaison with parties on multiple fronts, including suppliers, the government and local communities.

3.3.2 Collaborative buyer-seller relationships

What constitutes a buyer-seller relationship? A buyer-seller relationship comprises any interaction between a buying organisation and a supplier, usually with good and bad characteristics. The most successful relationships are those where buyers and suppliers develop trust and an understanding of their respective requirements and interests, accompanied by a concern for both learning from and providing assistance to each other. Where such conditions exist, the ultimate outcome should be the creation of established and dependable collaborative buyer-seller relationships. Such relationships are the basis of networks and provide competitive advantages for both parties.

That is obvious. What is not quite as clear is the nature of the buyer-seller relationship – normally a result of cause and effect, which is either managed or accidental. A wide relationship spectrum can be identified based on the type of interaction between the buying organisation and the supplier. A good categorisation of these relationships was done by Burt *et al.* (2010) who divided them into three principles classes, namely transactional, collaborative and alliance buyer-seller relationships that identified in their continuum of buyer-seller relationships. Figure 3.1 provides a summary of the activities and attributes common to each.

Figure 3.1: Characteristics of the three principle classes – transactional, collaborative and alliance buyer-seller relationships



	TRANSACTIONAL RELATIONSHIPS	COLLABORATIVE RELATIONSHIPS	ALLIANCE RELATIONSHIPS
Communication	High potential for problems		Systematic approach to enhance communication
Competitive advantage	Low		High
Connectedness Continuous improvement	Independence Little		Interdependence A focus on
Contributions to new product development	Few		Many/early supplier involvement
Difficulty of exit	Low		Difficult/high impact
Duration	Short		Long
Expediting	Reactive		Proactive
Focus	Price		Total cost
Level of integration	Little or none		High or total
Level of trust	Low		High
Number of suppliers	Many		One or few
Open books	No		Yes
Quality	Incoming inspection		Design quality into system
Relations	Inward looking		Concern with each other's well-being
Resources	Few/low skill level		Professional
Service	Minimal		Greatly improved
Shared forecasts	No		Yes
Supply disruptions	Possible		Unlikely
Technology inflows	No		Yes
Type of interaction	Tactical		Strategic synergy

Source: Dobler *et al*. (2010:66).

3.3.3 Advantages of closer buyer-seller relationships

There are an infinite number of advantages of closer buyer-seller relationships. Trust and long-term contracts are discussed in the prescribed book.

3.3.4 Obstacles to closer buyer-seller relationships

There are also a vast number of obstacles to overcome when trying to establish a closer buyer-seller relationship. They include:

- confidentiality
- limited interest by suppliers
- legal barriers
- resistance to change

3.3.5 Critical elements for supplier relationship management

Now consider this – if a buyer-seller relationship is a managed one with advantages and obstacles – who is doing the managing, and what does it entail? Will it be the buying organisation or the supplier? Traditionally, suppliers did a better job of managing their customers (the buying organisations). This can be due to the fact that in examining their buyer-seller relationships, buying organisations conventionally placed too little emphasis on regular communication between the purchasing, sourcing and supply departments and the various other departments within the organisation. This lead to a lack of common infrastructure to support cooperation and progress regarding buyer-seller relationship matters. This resulted in a contorted focus on managing purchasing and supply transactions, rather than an overall strategy to establish and sustain buyer-seller relationships to ensure superior performance of suppliers throughout the span of their association with the buying organisation.

However, buying organisations have drastically changed their view of supplier relationship management in recent years and is currently enforcing strategic management of their supplier base towards the implementation of supplier performance measurement. This is largely a result of the intensely competitive marketplace in which all organisations are presently operating in, and the reality that they are consequently looking to gain every advantage possible in leveraging their supplier base to improve their own competitive stature worldwide.

The traditional price-based relationship with suppliers are changing – giving way to long-term relationships based on total cost, trust, flexibility, innovation, quality and constant amendment. These relationships are assisting organisations to positively impact on customer satisfaction, financial performance, innovation and organisational growth. This requires a considerable amount of commitment by the buying organisation. It is worth the effort however as an increasingly large percentage of the value of a product or service comes from suppliers in today's business world, prompting organisations to realise the significance of sustaining strategic relationships with first-tier and, in some cases even second-tier, suppliers by means of constructive management.

This answers the question of who needs to do the managing. Now what does supplier relationship management entail? The following skills are required for effectively managing buyer-seller relationships:

- the ability to adopt a shared understanding between partners.
- the ability to recognise the level of cultural match between partners.
- the skills to foster high quality relations.
- the ability to manage relationships through changes in contractual obligations.
- the skills to manage consortium-based relationships.

Other important factors are (1) motivating employees; (2) motivating lower and middle management; and (3) enabling employees to improve their performance.

Supplier relationship management can be regarded as a buying organisation's strategic management philosophy for interacting with its supply base with the objective of sustaining superior performance throughout the span of their association. Supplier relationship management is regarded by a large number of people as a software solution driven process. It is important to highlight the fact that this is not true. It is vital to understand the dynamics of managing buyer-seller relationships first, and then enhance this activity with the use of appropriate technology.

Now turn your attention to your prescribed book – which continues to outline the critical elements for supplier relationship management.

Study pages 126 to 131 in Monczka, *et al*. (2016).

3.4 THE CRITICAL ROLE OF CROSS-FUNCTIONAL SOURCING TEAMS

In business, the simplest definition of a cross-functional team is a group of people with different functional expertise working toward a common goal. It may include people from finance, marketing, operations, and human resources departments. Typically, it includes employees from all levels of an organisation. Members may also come from outside an organisation (in particular, from suppliers, key customers, or consultants). Cross-functional teams often function as self-directed teams responding to broad, but not specific directives. Decision-making within a team may depend on consensus, but is often led by a manager/coach/team leader.

A non-business, yet good example of cross-functional teams are music bands, where each element plays a different instrument (or has a different role). Songs are the result of collaboration and participation, and the goals are decided by consensus. Skills to play all the instruments involved are not required since music provides a standard language that everybody in the team can understand. In short, music bands are clear examples of how these teams work.

The movie maker is the best example to show the relation between the team members from different experiences. The director actually is the team leader but if he said action and at the same time the sound manager found some distortion or noise or anything which he is not convinced within his job he can take the decision to stop until this problem is solved – so every expert is the leader or the manager of the whole operation when there is a problem related to his speciality.

Study pages 132 to 142 in Monczka *et al*. (2016).

Activity 3.1

Can you think of any fundamental elements that would need to be in place before cross-functional teams can operate successfully?

Feedback

For cross-functional teams to succeed, several factors have been identified that are imperative:

- *team members must be open-minded and highly motivated*
- *team members must come from the correct functional areas*
- *a strong team leader with excellent communication skills and a position of authority is needed*
- *the team must have both the authority and the accountability to accomplish the mission it has been given*
- *management must provide adequate resources and support for the team, both moral and financial*
- *adequate communication must exist*

Without any one of these elements, any cross-functional team would be fighting an uphill battle to succeed.

3.4.1 Benefits sought from the cross-functional team approach

Cross-functional teams have become more popular in recent years for three primary reasons: they improve coordination and integration, span organisational boundaries, and reduce the production cycle time in new product development. Bringing people together from different disciplines can improve problem solving and lead to more thorough decision making. The teams foster a spirit of cooperation that can make it easier to achieve customer satisfaction and corporate goals at the same time.

The prescribed book discusses the following benefits sought from the cross-functional team approach:

- reduced time to complete a task
- increased innovation
- joint ownership of decisions

- enhanced communication between function or organisations
- realising synergies by combining individuals and functions
- better identification and resolution of problems
- the need to build internal relationships through teams

3.4.2 Potential drawbacks to the cross-functional team approach

Cross-functional teams have become an integral part of the business landscape in many industries in recent years. But observers point out that their use can have unintended drawbacks if companies are not watchful. For example, analysts note that cross-functional teams can actually limit the professional growth of team members because they have a narrow focus on one area. One company profiled in Nation's Business found that after two years of serving on the same team, team members were becoming bored and were learning only about the clients or the business categories handled by their team.

The solution? Once or twice every year, team members were reorganised into new teams so that they could learn new skills. As a result of the new team environment, revenue-per-employee rose 70 per cent, while clients reported in questionnaires that the company's performance met or exceeded their goals 97 per cent of the time. Ninety two per cent of clients rated the company better than the competition when it came to service.

Some companies try to hand off projects to cross-functional teams that are simply too large in scope and are essentially doomed to failure from the start. Such large projects lack the focus needed for cross-functional team success, and trying to make such a project work in that environment can sour an entire organisation on using cross-functional teams for other projects. Another sure pitfall is to establish a cross-functional team without imposing either project deadlines or interim reporting deadlines. Without a sense of urgency to complete a project, the project will almost certainly stall and fail.

Converting employees to a new compensation system when cross-functional teams are implemented can be difficult as well. When team incentives replace individual merit increases, team members often complain, even though more money can be earned in the team-based system. Employees often feel that they have very little control over whether or not the company's profits actually increase, therefore they have no control over earning a raise. Additionally, many employees balk at giving up their own merit increase for the sake of the team. They may see the team plan as a way to demand more from teams than from individuals without giving anything back in return.

There are also a number of potential drawbacks from the cross-functional team approach discussed in the prescribed book:

- negative effects on individual members
- poor team decisions
- team process loss

3.4.3 When to form a cross-functional team

All organisations face resource constraints that affect the number of cross-functional teams they can establish. Focus on the discussion in the prescribed book to establish when to from a cross-functional team, and when not to!

3.4.4 Improving sourcing team effectiveness

When executed properly, the cross-functional team approach can bring together the knowledge and resources required for responding to new sourcing demands, something traditional functional structures are often incapable of doing. However, groups and teams can accomplish much that is good, or they can do great harm. There is nothing implicitly good or bad, weak or strong, about teams, regardless of where an organisation uses them. Because most organisations expect to use teams to support purchasing, sourcing and supply decision making, it is important to understand how to effectively manage the cross-functional sourcing team process.

Unfortunately, researchers who study teams rarely reach the same conclusions about the key factors affecting team success. The study of teams is complex because no two teams or organisations are the same. A factor affecting one team may have little impact on another. Each team is a unique entity displaying its own behaviour and nuances. The prescribed book, however, includes a set of questions that will assist you to improve the sourcing team's effectiveness within your own organisation.

3.5 INTEGRATING SUPPLY MANAGEMENT, ENGINEERING AND SUPPLIERS TO DEVELOP NEW PRODUCTS AND SERVICES

Study pages 141 to 151 in Monczka *et al*. (2016).

The prescribed book discusses the involvement of supply management, engineering and suppliers to jointly work to develop new products and services under the following sub-headings:

- Common themes of successful supplier integration efforts
  - Formalised process for selecting items for supplier integration
  - Use of cross-functional team for supplier evaluation and selection
  - Early supplier selection for design and volume work
  - Supplier membership and participation on the team
  - Direct cross-functional intercompany communication during the project
  - Co-location of buyer and supplier personnel
  - Formal business unit trust development efforts
  - Sharing of technology between buyer and supplier companies
  - Joint education and training efforts
- Supplier integration into customer order fulfilment
- Supplier suggestion programmes
- Buyer-seller improvement teams
- On-site supplier representative
- Potential benefits of on-site supplier representatives

Read the examples on pages 152 to 153 in Monczka *et al*. (2016).

CONCLUSION

Imagine that a company decides to manufacture in China. The CEO assigns the task to a manufacturing vice president, and within two years, the company has a plant up and running in Guangdong. But our hypothetical company has no overall end-to-end supply chain capability to account for the fact that its lead times have increased by four weeks. This, in turn, has an impact on how the company sells its products, takes orders, plans distribution, sizes warehousing, and manages inbound and outbound logistics throughout the global markets being served by the Chinese plant. In short, although the company has lowered its product costs, it has increased its supply chain risk and possibly raised its total cost of ownership – taking into account the impact on lost sales.

Our hypothetical organisation would have greatly benefited from the information on supply management integration supplied in this study unit. We looked at integration – internally and externally. The focus was on the critical roles of buyer-supplier relationships and cross-functional teams. You also learned to value the integration of supply management, engineering, and suppliers to develop new products and services.

This concludes part 2 of the study guide. You should now have a sound knowledge of purchasing operations and structure. We now move on to investigate the concept "Strategic sourcing", and will start by evaluating supply management and commodity strategy development in study unit 4.

ASSESSMENT

(1) Define the concept "integration".
(2) List and explain supply management's internal communication flows and linkages.
(3) List and explain the supply management's external communication flows and linkages.
(4) Explain what collaborative buyer-supplier relationships entail.
(5) List the advantages of buyer-supplier relationships.
(6) List the obstacles of buyer-supplier relationships.
(7) Explain what the critical elements of supplier relationship management are.
(8) Identify the critical role of cross-functional sourcing teams.
(9) Compile a checklist of the benefits from the cross-functional team approach.
(10) Identify potential drawbacks from the cross-functional team approach.
(11) When does an organisation need to form a cross-functional team?
(12) Identify and explain ways to improve sourcing team effectiveness.
(13) Provide an in-depth discussion on integrating supply management, engineering and suppliers to develop new products and services. Use the following sub-headings:

- *Common themes of successful supplier integration efforts*
- *Supplier integration into customer order fulfilment*
- *Supplier suggestion programmes*
- *Buyer-seller improvement teams*
- *On-site supplier representative*
- *Potential benefits of on-site supplier representatives*

Also attempt to answer the discussion questions on pages 154 to 155 of Monczka et al. (2016).

PART 3

STRATEGIC SOURCING

Study unit 4

Category strategy development

Study unit 5

Supplier evaluation and selection

Study unit 6

Supplier quality management

Study unit 7

Supplier management and development: creating a world-class supply base

Study unit 4

CATEGORY STRATEGY DEVELOPMENT

CONTENTS

STUDY UNIT AIM

The aim of this study unit is to outline the relation between supply management and commodity strategy development.

STUDY UNIT LEARNING OUTCOMES

After studying this study unit, you should be able to

- clarify the alignment of supply management and enterprise objectives
- explain what a category strategy is
- conduct a spend analysis
- evaluate a spend analysis spreadsheet
- explain the various steps of category strategy development with the aid of a diagram
- distinguish between the different types of supply management strategies
- discuss e-Reverse auctions in detail
- explain the stages of supply management strategy evolution with the aid of a diagram

KEY CONCEPTS

- aligning supply management
- enterprise objectives
- integrative strategy development
- translating supply management objectives
- supply management goals
- category strategy
- spend analysis
- spend analysis spreadsheet
- category strategy development
- strategic sourcing
- team
- project charter
- conduct market research
- strategy development
- contract negotiation
- supplier relationship management
- types of supply management strategies
- supply base optimisation
- supply risk management
- global sourcing
- longer-term supplier relationships
- early supplier design involvement
- supplier development
- total cost of ownership
- e-Reverse auctions
- evolving sourcing strategies
- supply management strategy evolution

Study chapter 6 in Monczka *et al*. (2016).

GETTING AN OVERVIEW

Read the case study on pages 192 to 193 in Monczka *et al*. (2016).

We have now established that the true benefits of purchasing, sourcing and supply management were almost unknown within industry a couple of years ago. Manufacturers usually made most of the parts that went into their finished products. When they needed to buy materials or services, they relied on purchasing departments that were seen primarily as order takers and order placers. These departments had little visibility, had little perceived value to the bottom line, and enjoyed little respect from other parts of the organisation.

That scene has changed dramatically. Although few companies are as strategic as they need to be, and few apply best practices to maximum benefit, almost every company today understands the link between supply management principles and strategic goals. More and more companies now understand the concept of becoming lean – the ability and competitive necessity of getting waste out of processes. They understand why integrating suppliers into new product development are important. Over time, the tactical purchasing function has given way to supply management processes in which highly trained professionals take a systemic, strategic approach to the drivers of total value.

The reason for the change? A changing world.

As demands increased for better quality, faster delivery, and better overall value, a few visionary leaders began to deliberately distinguish between the things that created value and the things that did not. What they discovered was that the supply chain was a huge opportunity waiting to happen. Their companies adopted best practices such as supplier development, cost management, supplier integration, strategic sourcing themselves and value engineering to stay ahead of competitors and position for future success.

Other companies resisted change too long and were forced to make traumatic adjustments when competitive and economic challenges left them two choices: manage more efficiently or fail. (A burning platform is always an effective catalyst for improvement.)

Whatever the reason for change, companies that implement purchasing and supply management best practices find that they can make their total spend go 20 per cent to 30 per cent further. Imagine Vodacom saved 20 per cent or more on the R100-million state-of-the-art data centre that the organisation unveiled in November 2008 in Johannesburg. The 1 000 square metre facility has the capacity to host up to 20 000 dedicated client servers or up to 650 000 virtual machines, allowing companies to do away with their own costly data centres.

This study unit will help us achieve exactly that, by clarifying the alignment of supply management and enterprise objectives, explaining what a category strategy is and outlining the various steps of category strategy development. We will also distinguish between the different types of supply management strategies, address e-Reverse auctions and explain the stages of supply management strategy evolution.

4.1 ALIGNING SUPPLY MANAGEMENT AND ENTERPRISE OBJECTIVES

You have already learnt in Purchasing Management (MNP2601) and Supply Chain Management (MNP2602) that purchasing management, supply management and supply chain management objectives are subordinate to corporate objectives. Therefore these objectives need to support and contribute to the corporate objectives. Likewise, should business unit, functional strategies (sub-strategies) and even to a lower level product-line/commodity strategies, support and be in line with corporate strategies?

Organisations use integrative strategy development to develop corporate strategies, business unit strategies, supply management strategies and commodity strategies.

Study pages 193 to 198 in Monczka *et al*. (2016).

4.2 WHAT IS A CATEGORY STRATEGY?

Once an organisation has established their supply strategies and goals, it is often applied to categories – or in other words, general families of purchased products or services. A variety of commodity examples is included in your prescribed book!

Study pages 199 to 208 in Monczka *et al*. (2016).

The most important aspects addressed in this section include conducting a spend analysis and the spend analysis spreadsheet.

Read the sourcing snapshot on pages 206 to 208 in Monczka *et al*. (2016).

4.3 CATEGORY STRATEGY DEVELOPMENT (STRATEGIC SOURCING)

This is one of the most important issues in the module.

Once the decision has been made to outsource a product or service, organisation will typically use a process known as strategic sourcing to decide to whom to outsource the product or service, as well as the structure and type of relationship that should be established.

Most authors define strategic sourcing by describing or highlighting the principal elements or activities, or describing it as a process. Some definitions focus on supplier relations, while others emphasise the concept of applying long-term business objectives to sourcing decisions. Furthermore, there is evidence that what is viewed as strategic sourcing varies according to organisational and personal understanding of the concept. The reason for this could be that firms find themselves on various levels of maturity in strategic sourcing.

Strategic sourcing is also seen as a systematic process that directs purchasing, sourcing and supply managers to plan, manage and develop the supply base in line with a firm's strategic objectives. Strategic sourcing is the application of current best practices to achieve the full potential of integrating suppliers into the long-term business process.

The process of strategic sourcing starts with the establishment of cross-functional teams who analyse the supply market situation, develop a strategy, negotiate contracts and manage relationships with suppliers.

Study pages 208 to 230 in Monczka *et al*. (2016).

As indicated above strategic sourcing is a process that involves cross-functional teams to identify, develop, manage and integrate an organisation's supplier base. The prescribed book discusses the process according to 5 steps:

- Step 1: build the team and the project charter
- Step 2: conduct market research on suppliers
- Step 3: strategy development
- Step 4: contract negotiation
- Step 5: supplier relationship management

Study this section by focussing on exhibit 6.9 on page 209.

4.4 TYPES OF SUPPLY MANAGEMENT STRATEGIES

As supply management becomes more involved in strategic decisions, an understanding of the various strategies that it can employ is crucial. Strategies such as increased integration, information sharing and collaboration among supply chain members are most likely to be implemented and will have the largest impact on organisations leading to significant improvements over the next 5 to 10 years. However, this integration will not include joint investment or asset sharing, will be limited to one tier in the supply chain, and will not heavily involve e-markets and electronic auctions.

The prescribed book discusses seven other types of supply management strategies:

- Insourcing/outsourcing
- Supply base optimisation
- Supply risk management
- Low-cost country sourcing
- Longer-term supplier relationships
- Early supplier design involvement
- Supplier development
- Total cost of ownership

Study pages 230 to 236 in Monczka *et al*. (2016).

4.5 E-REVERSE AUCTIONS

Many private sector organisations (eg BMW and Nestlé) and public sector organisations (eg the Gauteng Shared Services Centre (GSSC) and universities) use e-Reverse auctions in an attempt to achieve direct cost reductions of externally sourced goods. In e-Reverse auctions, the purchaser invites pre-selected suppliers who compete against each other to supply a specified good or service thus, driving down the supply price through direct competition. The potential savings are significant typically ranging from 5% to 30%, or in some cases even more far reaching.

Traditional e-Reverse auctions processes comprise four key stages; opportunity assessment, market making, transaction and implementation, which are fully recordable for issues of traceability and transparency. e-Reverse auctions can be quick to instigate, have a potentially low entry cost and encourage good procurement practice. Whilst e-Reverse auctions are not necessarily indications of procurement excellence, they can be a catalyst to support the introduction and continued operation of best practice and benchmarking. A reduction in the purchase price of goods and/or services is the main component of a business case for the use of e-Reverse auctions. Such a reduction in cost can occur in real-time through competitive bidding between suppliers, in a similar way to eBay through peer-to-peer models. This can be through improved pricing terms for spot purchase or for the duration of the contract for longer term strategic agreements. It is not always however true that the cheapest price is the best deal. Factors other than price need to also be considered, such as quality, delivery, product warranty, service and specification.

Whilst many e-Reverse auctions are used as price reduction strategies, only such an approach can use a blended weight bidding format for combinations of these criteria thus, ensuring that the best value (as determined by the purchaser) is attained. Effectively, the e-Reverse auctions process which is clearly dynamic provides reassurance that the organisation is buying at market rates rather than using traditional static tendering processes.

Study pages 236 to 237 in Monczka *et al*. (2016).

4.6 EVOLVING SOURCING STRATEGIES

The four phases of supply management strategy evolution is discussed in the prescribed under the following sub-headings:

- Phase 1: basic beginnings
- Phase 2: moderate development
- Phase 3: limited integration
- Phase 4: fully integrated supply chains

Study this section by focusing on exhibit 6.14 on page 237.

Study pages 237 to 239 in Monczka *et al*. (2016).

Read the practical example on pages 240 to 241 in Monczka *et al*. (2016).

CONCLUSION

Basically, it is crucial to ensure that supply objectives are fully aligned with enterprise objectives to ensure an increase in revenue and decrease in costs. These supply objectives should then be translated into measurable supply goals that can be put into action. Once a category strategy is identified, the strategic sourcing process can be implemented. Fundamentally, strategic sourcing is a process that helps companies analyse how they purchase products and services to lower costs, improve profits, and improve their supply chain. Strategic sourcing recognises that people, including innovative suppliers, are a valuable part of an organisation and focuses on reducing waste or non-value-added costs. While most organisations implement strategic sourcing initiatives for the purposes of saving money, other reasons include improving supplier performance, minimising risk and gaining a significant competitive advantage.

This study unit helped us understand the alignment of supply management and enterprise objectives, by explaining what a category strategy is and outlining the various steps of category strategy development. We also distinguished between the different types of supply management strategies, addressed e-Reverse auctions and explained the stages of supply management strategy evolution.

We will outline the variables influencing the supplier selection and evaluation process in study unit 5.

ASSESSMENT

(1) Clarify the aligning of supply management and enterprise objectives by using the following sub-headings:

- *Integrative strategy development*
- *Translating supply management objectives into supply management goals*

(2) What is a category strategy?
(3) Explain all the aspects to take into consideration when conducting a spend analysis.
(4) How does an organisation produce a spend analysis spreadsheet?
(5) Explain the various steps of category strategy development with the aid of a diagram.
(6) Distinguish between the different types of supply management strategies.
(7) Provide an in-depth discussion about the concept "e-Reverse auction".
(8) Explain the stages of supply management strategy evolution with the aid of a diagram. Use the following sub-headings:

- *Phase 1: basic beginnings*
- *Phase 2: moderate development*
- *Phase 3: limited integration*
- *Phase 4: fully integrated supply chains*

Also attempt to answer the discussion questions on pages 242 to 243 of Monczka et al. (2016).

Study unit 5

SUPPLIER EVALUATION AND SELECTION

CONTENTS

STUDY UNIT AIM

The aim of this study unit is to explain the supplier evaluation and selection process.

STUDY UNIT LEARNING OUTCOMES

After studying this study unit, you should be able to

- outline the supplier evaluation and selection process
- list and explain the key supplier evaluation criteria
- develop a supplier evaluation and selection survey
- outline the critical issues in supplier selection
- suggest ways to reduce supplier evaluation and selection cycle time

KEY CONCEPTS

- supplier evaluation
- supplier selection process
- recognise the need for supplier selection
- key sourcing requirements
- sourcing strategy
- potential supply sources
- sourcing alternatives
- limit suppliers in selection pool

- reach agreement
- key supplier evaluation criteria
- management capability
- employee capabilities
- cost structure
- total quality performance, systems, and philosophy
- process capability
- technological capability
- environmental regulation compliance
- financial stability
- production scheduling and control systems
- e-commerce capability
- Black Economic Empowerment
- black ownership/control
- black management
- skilled black personnel as a percentage of all skilled personnel
- purchases from black and BEE suppliers
- black female management, and
- employment of the black disabled.
- supplier's sourcing strategies, policies, and techniques
- longer-term relationship potential
- supplier evaluation and selection survey
- supplier evaluation categories
- identify and weigh sub-categories
- scoring system for categories and sub-categories
- evaluate supplier directly
- review evaluation results
- make selection decision
- review and improve supplier performance
- reducing supplier evaluation
- selection cycle time
- map current supplier evaluation and selection process
- integrate with internal customers
- data warehouse
- third-party support
- new organisational design features
- preferred supplier list
- electronic tools
- predefined contract language and shorter contracts

Study chapter 7 in Monczka *et al*. (2016).

GETTING AN OVERVIEW

Poor supplier performance can be an immeasurable pit for precious organisational resources – including time, money and effort. You won't have to work so hard if you apply certain proven techniques for evaluating and selecting the right supplier from the out-

set – and improving the buying organisations' chances of obtaining adequate or even outstanding supplier performance as a result.

If you have wanted to implement a supplier evaluation and selection programme but had difficulty getting started, this study unit is going to prove very valuable to you. We will examine the supplier evaluation and selection process in this study unit by taking a closer look at the key supplier evaluation criteria, a supplier evaluation and selection survey, the critical issues in supplier selection and by suggesting ways to reduce supplier evaluation and selection cycle time.

You might find the headings and sub-headings in this chapter (Ch 7) in the prescribed book confusing. Therefore please follow the study guide where we clearly distinguish between headings and sub-headings.

5.1 THE SUPPLIER EVALUATION AND SELECTION PROCESS

A generic supplier evaluation and selection is discussed in detail in the prescribed book, under the following sub-headings:

Step 1 Recognise the need for supplier selection
Step 2 Identify key sourcing requirements
Step 3 Determine sourcing strategy
Step 4 Identify potential supply sources

- Current suppliers
- Sales representatives
- Information databases
- Experience (organisational knowledge)
- Trade journals
- Trade directories
- Trade shows
- Second-party or indirect information
- Internal sources
- Internet searches

Step 5 Sourcing alternatives

- Manufacturer vs. distributor
- Local or national or international suppliers
- Large or small suppliers
- Multiple or single sourcing
- Evaluate critical issues

Step 6 Limit suppliers in selection pool

- Financial risk analysis
- Evaluation of supplier performance
- Evaluation of supplier-provided information

Step 7 Determine the method of supplier evaluation and selection

- Evaluation from supplier-provided information
- Supplier visits
- Use of preferred suppliers
- External or third-party information

Step 8 Select supplier and reach agreement

Study pages 248 to 264 in Monczka *et al*. (2016).

5.2 KEY SUPPLIER EVALUATION CRITERIA

Purchasing, sourcing and supply professionals usually evaluate potential suppliers across multiple categories using their own selection criteria with assigned weights. The prescribed book discusses some of these evaluation criteria including:

- Management capability
- Employee capabilities
- Cost structure
- Total quality performance, systems, and philosophy
- Process and technological capability
- Environmental regulation compliance
- Financial stability
- Production scheduling and control systems
- E-commerce capability
- Supplier's sourcing strategies, policies, and techniques
- Longer-term relationship potential

Study pages 264 to 272 in Monczka *et al*. (2016).

In South Africa, another important supplier evaluation criterion is the evaluation of the potential suppliers' ownership/control status in terms of Black Economic Empowerment (BEE). Let us take a closer look at this, by considering the practice employed by Eskom – South Africa's electricity provider.

When applying for registration as suppliers, and again on every occasion when they submit a tender to Eskom, suppliers provide a statement of their ownership/control and internal Black Empowerment Programme, which will be used in supplier assessment and in assessing tenders along with technical and commercial offerings. Any changes to the make-up of the potential supplier or to their Black Empowerment Programme that will improve their BEE status but that occur after the tender closing date and time and before order/contract placement will not be taken into consideration in tender evaluation, even if these changes were under consideration at the time of tendering. However, if a supplier loses its BEE status at any time, Eskom must be informed within seven (7) working days.

Areas that will receive specific attention during BEE status evaluation are:

- Black ownership/control
- Black management
- Skilled black personnel as a percentage of all skilled personnel
- Purchases from black and BEE Suppliers
- Black Female Management, and
- Employment of the black disabled.

To establish whether a large supplier, that is a supplier with an annual turnover of more than R25 m, qualifies as a BEE Supplier, a points rating system is used. Large suppliers with a rating of 9 or more will be deemed to be BEE Suppliers. To qualify as a large BEE supplier at least one point must be scored in the criteria for Black ownership, Black management, percentage of skilled Black personnel, and purchasing from BEE Suppliers.

Small suppliers, with an annual turnover of R25 m or less, in manufacturing, construction, mining/extraction or management or professional consulting may request, in writing, that Eskom measure them according to the points system set out in table 5.1 rather than by the ownership requirement. This will be at Eskom's discretion.

This rating will be updated with every tender received, and used in evaluating the tenders, taking economic value to Eskom and the economy at large into consideration. This rating will also be used in formal supplier performance appraisal meetings. Only Black Supplier Programme personnel may qualify a supplier as BEE and register it as such on the Eskom Vendor Master.

Table 5.1

Eskom's bee rating criteria for supplier and tender evaluation

CRITERIA	**1**	**2**	**3**
Black Ownership	10% to <20%	20% to 50%	>50%
Black Management	10% to <20%	20% to 50%	>50%
Black Skilled Personnel	10% to <20%	20% to 50%	>50%
Procurement from Black/BEE Suppliers	5% to <10%	10% to 20%	>20 %
Black Female Management	1% to <5%	5% to 10%	>10%
Other BEE Initiatives	One point at Eskom's discretion		
Employment of the Black Disabled	One point at Eskom's discretion (see note below)		

Source: http://www.eskom.co.za/content/ESKADAAT6_REV4b%5B1%5D.doc

5.3 DEVELOPING A SUPPLIER EVALUATION AND SELECTION SURVEY

Why evaluate supplier performance? There are various reasons for the evaluation of purchasing, sourcing and supply performance being important, such as:

1. Evaluation can significantly improve supplier performance. When properly done, supplier performance management can provide answers to questions such as the following.
    - Who are the highest-quality suppliers?
    - How can relationships with the best suppliers be enhanced?
    - How can supplier performance be incorporated into total cost analysis?
    - How can buyers ensure that suppliers live up to what was promised?
    - How can feedback be shared based on experience with a supplier?
    - How can underperforming suppliers' problems be tracked and fixed?
2. Evaluation assists decision making regarding when a supplier is retained or removed from an approved list.
3. Evaluation assists in deciding with which suppliers a specific order should be placed
4. Evaluation provides suppliers with an incentive for continuous improvement and prevents performance "slippage".
5. Evaluation can assist in deciding how to distribute the spend for an item among several suppliers to better manage risk.

What needs to be evaluated? Traditionally, the key performance indicators (KPIs) for the evaluation of supplier performance have been price, quality and delivery. While these are still basic to supply evaluation, such developments as just-in-time, lean manufacturing, integrated supply chain and e-procurement have made the fuller evaluation of supplier relationships an important consideration. Such relationships include such qualitative factors as intercompany communication and high levels of trust, which are not easy to assess other than subjectively. Apart from subjectivity, qualitative evaluations are often subject to "halo effects" – which is the tendency to bias in favour of particular supplier due to irrelevant considerations, such as the friendly approach its sales representatives. There is, however, an element of subjectivity in all evaluation systems.

The seven steps employed to develop a supplier evaluation and selection survey are discussed in the prescribed book. They include:

- Step 1: identify supplier evaluation categories
- Step 2: assign a weight to each evaluation category
- Step 3: identify and weigh sub-categories
- Step 4: define a scoring system for categories and sub-categories
- Step 5: evaluate supplier directly
- Step 6: review evaluation results and make selection decision
- Step 7: review and improve supplier performance continuously

Study pages 272 to 276 in Monczka *et al*. (2016).

It is useful when selecting a supplier to have a check list with which to evaluate the supplier's suitability. How much of the checklist is used and how thoroughly will depend on every organisation's own needs. However, even a brief review using this check list may help raise points that could otherwise be overlooked and become issues later. Consider the following example of a supplier selection check list.

This check list has been designed primarily for suppliers that offer IT development services, such as consultancy; application design and software development and implementation. It also has relevance to services, software support, application hosting, IT services (running infrastructure) and IT product suppliers. Remember that this checklist is primarily for use as an aid and is not designed to be an exhaustive list of all possible issues to consider. The format of this check list has been designed to provide a simple list of issues for you to consider.

1 SUPPLIER STATUS

- **Employees**
  - How many are there?
  - Where are they based?
  - Are any of them critical?
- **Geography**
  - How widespread are the offices?
  - What is the nature of the offices?
- **Credibility**
  - Reputation in the market
  - Who are their reference clients?
  - Who have they worked with before on similar projects?
  - Talk to these clients
  - Are there other clients that they don't quote as references?
  - Have they done any work for your competitors?
- **Partners**
  - What is the quality and range of their formal partnerships?
  - If this is weak–do they have an informal network that can be called upon to provide additional or specialist resources?
- **Strategic direction**
  - Is it appropriate or necessary to develop a long-term relationship with this supplier?
  - If so, do they have the vision to innovate in the way you would like?
- **Existing relationship**
  - Is there an existing relationship with the supplier?
  - Who are the account managers?
  - What work has been done?
  - What are the terms and period for any co-operation?

2 DELIVERY CAPABILITY

- **Services**
  - Can the supplier provide the complete range of services required for completing the project?
  - Typical implementation time for this scale of project? Project Management? Support? Graphic design? Design creativity? Application hosting?

- **Quality of Deliverables**
  - Can they produce evidence of good quality work?
  - Does it comply with their standards?
- **Resources**
  - Are there enough to execute the work?
  - Is it clear what dependence there is on key individuals?
  - Is contingency included in the resource planning?
  - Would they be able to deal with the unexpected?
  - Are specific, named, resources allocated?
- **Geography**
  - Is there an appropriate geographical presence to execute the project?
- **Customer interface**
  - Are there suitable customer interfaces for the project?

3 PROCESSES

- Do they have robust, repeatable, measurable processes for creating their deliverables?
- Are they formally certified?
- Are project tracking and reporting procedures in place?

- **Project Management**
  - Do they recognise the proposed work as a project?
  - How do they carry out project management?
  - Do they fit with your own project control procedures, or can they be modified to do so?
- **Account Management**
  - How is the relationship managed outside the context of specific projects?
  - How are projects planned within a portfolio?
  - How do you take advantage of economies of scale across projects?
  - What complaints/problem escalation procedures exist?
  - How willing are they to invest in a long-term relationship?
  - Is there a user group? Is it independent?
- **Design/Build**
  - Are there formal processes?
  - Do they have standards?
  - Do we understand the methodology that they will use?
  - Do you have the capability to interpret and sign off the design documents that they will create?

4 TECHNICAL STATUS

- **Infrastructure**
  - Do they have the necessary technical infrastructure to develop the application?
  - Can they test in an environment compatible to yours?
  - Is there portability across operating systems?
  - Are the system management tools used in support industry standard?
- **Development Environment**
  - Do they use appropriate standards or proprietary tools?
  - Will the output be supportable at reasonable cost?
  - Will it generate re-usable modules for them and for your developers?
  - How productive are they?

- Do they provide the ability to review progress on-line, securely?
- Is their documentation clear enough for hand-over to others?

- **Security**
  - Is their environment secure to the level required by the application and its content?

5 SUPPLIER CULTURE

- **Professionalism**
  - What aspects constitute as "professionalism" depends on the business environment and may need to be judged by other people in the same field?
- **Flexibility and Commitment**
  - How well will they handle schedule upsets, changes to requirements and so forth? This may be best judged in informal discussion and by checks with reference clients.
- **Open/Friendly**
  - How honest are they about problems faced and overcome?
  - Are they suitably discrete about their other clients?
  - Do you feel comfortable with them?
  - Do they appear to communicate openly and freely internally?
- **Integrity**
  - Do they stand by their offerings?
  - Are they consistent in what they say: during trade-off negotiations and about their capabilities?
  - Are they happy to be technically/financially audited if necessary?
- **Understanding Your Business Goals**
  - Does the supplier really understand why you want to do this project, from a business perspective?
- **Proactive**
  - Do they offer sensible and appropriate advice on potential solutions?
- **Understands Business Environment**
  - Are they willing to work with other 3rd Party development environments and yours?
  - Where relevant, the supplier should understand multilingual requirements for content delivery and its impact on maintenance complexity.
- **Innovative**
  - Look for an approach that is imaginative, flexible, and problem solving driven.

6 FINANCIAL/COMMERCIAL

- **Sustainability**
  - Will they exist for the length of time we need them?
- **Ownership structure/history**
  - How new are they?
  - Who owns them?
  - Services such as Dun and Bradstreet can help in this assessment.
- **Cash flow**
  - Will they go broke during the project/product lifecycle?
  - Can be tested by checking whether they can accept payment at the end of the project.
- **Intellectual property**
  - Is there a clear agreement about the ownership of any deliverables?

- **Non-disclosure**
  - Is an appropriate security agreement in place to protect your and the supplier's interests?
- **Competitive Pricing**
  - Consider daily rates, and how these may vary.
  - Headline rates are not the whole story – consider ability to execute.
  - Trade off fixed price against time and materials.
  - Consider balance between cost, time and quality.
- **Schedule Compliance**
  - Do they have the ability to execute within the project time-frames?

7 SUPPORT

- Decide what support will be required from the supplier, if any.
- What will the user helpdesk role be?
- Will the solution be created in a way that permits others to support it?
- Is there a standard SLA with various levels of service?

- **Costs**
  - Fixed
  - Variable
- **Availability**
  - Work hours
  - Holidays
  - Response times
  - Help desk functions – who, how, where
  - Do they have proper call management processes?
  - Are the escalation procedures clear?

Source: http://www.projectsmart.co.uk/docs/supplier-selection-checklist.pdf

5.4 REDUCING SUPPLIER EVALUATION AND SELECTION CYCLE TIME

Across almost all business applications, competitive and customer pressures are forcing reductions in the time it takes to perform a task or carry out a process. The prescribed book addresses some of the tools and approaches available to reduce the supplier evaluation and selection cycle time:

- map the current supplier evaluation and selection process
- integrate with internal customers
- data warehouse with supplier information
- third-party support
- new organisational design features
- supplier categorisation
- electronic tools
- predefined contract language and shorter contracts

Study pages 278 to 279 in Monczka *et al*. (2016).

Read the example on pages 280 to 281 in Monczka *et al*. (2016).

CONCLUSION

Activity 5.1

Can you identify an organisation operating within South Africa and determine its position on supplier evaluation and selection?

Feedback

Afrox is the largest gas and welding products supplier in South Africa and one of the country's most trusted brands, with products and services that form part of most manufacturing, industrial and construction processes. With its African operations, Afrox is the largest gases and welding company in sub-Saharan Africa. Afrox is part of a global group, Linde, one of the world's leading gas companies. Linde operates in 50 countries worldwide on five continents. Afrox is proudly South African. As part of a global company, Linde, they also embrace the global sourcing of products as a global group.

Their position on supplier selection, evaluation and performance appraisal is as follows:

The acronym SESPA stands for "Supplier Evaluation, Selection and Performance Appraisal. Worldwide the BOC Group adopted the SESPA methodology as the standard for selecting suppliers and evaluating suppliers' performance. A formal criteria exists that sets guidelines for the application of SESPA.

SESPA provides transparency and objectivity to the selection of suppliers and provides a measurement tool in the supplier performance management process. It provides a consistent and structured approach to the selection of suppliers. The SESPA process is applied by a cross-functional team so decisions are agreed and jointly owned. A decision against the responses received to the Request For Information (RFI)/Request for Quotation (RFQ) consists of the weighting of seven characteristics by a sourcing team, each of them bring a particular competency or skill to the process.

The seven characteristics are:

- *commercial*
- *administrative and business management*
- *responsiveness*
- *delivery/cycle time*
- *quality*
- *technology*
- *safety/environmental*

SESPA forms the basis for continuous improvement by providing the criteria for on-going measurement of the supplier. The SESPA process enables Afrox to benchmark suppliers, man-

age and mitigate supply and business risk. It also ensures that high performing suppliers are suitably rewarded.

The SESPA process support the Afrox values (ACTS) and the Afrox Code of Conduct/Ethical Purchasing Policy."

Source: http://www.afrox.com/downloads/about_us/Becoming_an_Afrox_supplier.pdf

We examined the supplier evaluation and selection process in this study unit by taking a closer look at the key supplier evaluation criteria, a supplier evaluation and selection survey, the critical issues in supplier selection and by suggesting ways to reduce supplier evaluation and selection cycle time.

Supplier quality management will be the focus in study unit 6.

ASSESSMENT

(1) Outline the supplier evaluation and selection process. Use a diagram to substantiate your answer.
(2) List and explain the key supplier evaluation criteria.
(3) Develop a supplier evaluation and selection survey.
(4) Outline the critical issues in supplier selection.
(5) Suggest ways to reduce supplier evaluation and selection cycle time. Use the following sub-headings:

- *Map the current supplier evaluation and selection process*
- *Integrate with internal customers*
- *Data warehouse with supplier information*
- *Third-party support*
- *New organisational design features*
- *Supplier categorisation*
- *Electronic tools*
- *Predefined contract language and shorter contracts*

Also attempt to answer the discussion questions on pages 282–283 of Monczka et al. (2016).

Study unit 6

SUPPLIER QUALITY MANAGEMENT

CONTENTS

STUDY UNIT AIM

The aim of this study unit is to highlight the important aspects associated with supplier quality management.

STUDY UNIT LEARNING OUTCOMES

After studying this study unit, you should be able to

- define the concept "supplier quality"
- list the reasons why supplier quality is so important
- list the factors affecting supply management's role in managing supplier quality
- write a detailed report on supplier quality management by using a total quality management perspective
- explain how to use ISO standards and MBNQA criteria to assess supplier quality systems

KEY CONCEPTS

- supplier quality management
- supplier quality
- factors affecting supply management's role in managing supplier quality

- total quality management perspective
- Deming's 14 points
- pursuing quality at the source
- objective measurement and analysis
- subjective measurement and analysis
- prevention of defects
- detection of defects
- process
- output
- process capability
- striving for zero defects
- cost of quality
- continuous improvement
- responsibility
- pursuing six sigma supplier quality
- ISO standards
- MBNQA criteria
- ISO 9000:2000 registration
- ISO 14000 standards
- the Malcolm Baldrige national quality award

Study chapter 8 in Monczka *et al*. (2016).

GETTING AN OVERVIEW

Supplier quality management has emerged as one of the leading business practices in the past few years. World-class manufacturers are making significant investments in systems and processes to improve supplier quality. Organisations such as Boeing – the world's leading aerospace company and the largest manufacturer of commercial jetliners and military aircraft combined. Additionally, Boeing designs and manufactures rotorcraft, electronic and defence systems, missiles, satellites, launch vehicles and advanced information and communication systems. Boeing has customers in more than 90 countries around the world and is one of the largest American exporters in terms of sales.

Their vision for supplier quality management is: "Our commitment to steady, long-term improvement in our products and processes is the cornerstone of our business strategy. Maintaining customer satisfaction and enhancing shareholder value is a mutual goal of both Boeing and its suppliers. To achieve this objective, we must continuously work together to improve the overall efficiency and productivity of our design, manufacturing, administrative, and support organisations."

This study unit focuses on supplier quality management by addressing what supplier quality is, and why we should be concerned with supplier quality. We then proceed to list the factors affecting supply management's role in managing supplier quality. An in-depth discussion on supplier quality management using a total quality management perspective follows. We will also consider pursuing six sigma supplier quality, and using ISO standards and MBNQA criteria to assess supplier quality systems.

Read the case study on pages 286 to 287 in Monczka *et al*. (2016).

6.1 OVERVIEW OF SUPPLIER QUALITY MANAGEMENT

Why is supplier quality management critical? With companies outsourcing their manufacturing to strategic partners across the globe, the supply chains have become very long. Many consumer products are manufactured in Mexico or the Far East and then shipped to North American markets using multiple logistics providers via ocean, air and roads. It can take weeks for a finished product to reach the store shelves from a supplier in the Far East. In addition, many of these manufacturers have streamlined their supply chain and implemented lean inventory techniques. As a result, any issue in supplier quality can quickly result in stock-outs.

Companies that sell industrial products need to preserve their preferred supplier status to continue to be considered for future business. As a result they are under pressure to ensure that their products continue to meet or exceed acceptable requirement thresholds set by their customers. We can therefore see why managing their own supplier's quality is very high on the agenda for these organisations.

Now turn your attention to the prescribed book in order to answer the questions: "What is supplier quality?" and "Why be concerned with supplier quality?"

Study pages 287 to 290 in Monczka *et al*. (2016).

6.2 FACTORS AFFECTING SUPPLY MANAGEMENT'S ROLE IN MANAGING SUPPLIER QUALITY

A number of factors affect how much attention supply management should commit to managing supplier quality:

- the ability of a supplier to affect a buyer's total quality
- the resources available to support supplier quality management and improvement
- the ability of a buying firm to practice world-class quality
- a supplier's willingness to work jointly to improve quality
- a supplier's current quality levels
- a buyer's ability to collect and analyse quality-related data

These are discussed in this section of the prescribed book.

Study pages 290 to 291 in Monczka *et al*. (2016).

6.3 SUPPLIER QUALITY MANAGEMENT USING A TOTAL QUALITY MANAGEMENT PERSPECTIVE

Total quality management (TQM) is a business management strategy aimed at embedding awareness of quality in all organisational processes – especially when addressing aspects concerning suppliers. You need to pay close attention to this section in the prescribed book as discussed under the following headings:

- Defining quality in terms of customers and their requirements
- Deming's 14 points
  - Point 1: Create a vision and demonstrate commitment
  - Point 2: Learn the new philosophy
  - Point 3: Understand inspection
  - Point 4: Stop making decisions purely on the basis of price
  - Point 5: Improve constantly and forever
  - Point 6: Institute training
  - Point 7: Institute leadership
  - Point 8: Drive out fear
  - Point 9: Optimize the team efforts of teams
  - Point 10: Eliminate exhortations
  - Point 11: Eliminate numerical quotas and measurement by objective
  - Point 12: Remove barriers to pride in workmanship
  - Point 13: Encourage education and self-improvement
  - Point 14: Take action
- Pursuing quality at the source
- Stressing objective rather than subjective measurement and analysis
- Emphasising prevention rather than detection of defects
- Focusing on process rather than output
- Basics of process capability
- Striving for zero defects
- Cost of quality
- The seven wastes
- Establishing continuous improvement as a way of life
- Making quality everyone's responsibility

Study pages 292 to 307 in Monczka *et al*. (2016).

We suggest that you start this section by reviewing exhibit 8.1 and 8.2 in the prescribed book.

6.4 PURSUING SIX SIGMA SUPPLIER QUALITY

The total quality management principles discussed in the previous section is only successful if organisations are able to operationalize them and demonstrate tangible results. Six Sigma is today's version of total quality management. What does the approach entail? Six Sigma is a business improvement culture, originally developed by Motorola, which today enjoys widespread application in many sectors of industry.

Six Sigma seeks to identify and remove the causes of defects and errors in manufacturing and business processes. It uses a set of quality management methods, including statistical methods, and creates a special infrastructure of people within the organisation who are experts in these methods. Each Six Sigma project carried out within an organisation follows a defined sequence of steps and has quantified financial targets (cost reduction or profit increase).

Obtaining the set Six Sigma objectives is an extraordinarily task. Fortunately, reaching Six Sigma is not actually the point of the Six Sigma program. The real accomplishments come from the journey to Six Sigma, not from the statistics. With the support of top management, the right tools and methodology and total corporate commitment, Six Sigma can significantly improve your organisation's growth through better quality and business processes as well as by reducing cost, improving cash and delighting your customers.

Study pages 308 to 309 in Monczka *et al*. (2016).

6.5 USING ISO STANDARDS AND MBNQA CRITERIA TO ASSESS SUPPLIER QUALITY SYSTEMS

With the current interest in ISO 9000 standards, some organisations have sought to replace or modify their improvement programmes to meet the ISO standards. This has brought an apparent reduction in interest in total quality management initiatives. But is this diversion justified by market forces or simply wishful thinking on the part of beleaguered organisational management?

The intent of the ISO 9000 series requirements is simple. The standard requires that a basic quality system be implemented to ensure customers that suppliers have the capabilities and systems to provide quality products and/or services.

ISO 14001: 2004 is designed to promote environmental awareness and protection as well as pollution prevention.

The benchmark for TQM models is the Malcolm Baldrige National Quality Award (MBNQA) criteria. A major goal of the MBNQA is to increase American competitiveness worldwide. The MBNQA is essentially a search for "role models" with superior records of quality.

These concepts are adequately explained in the prescribed book!

Study pages 309 to 315 in Monczka *et al*. (2016).

6.6 BASIC CONTENT OF A SUPPLIER QUALITY MANUAL

Study pages 315–316 in Monczka *et al*. (2016).

Read the practical example on pages 316 to 317 in Monczka *et al*. (2016).

CONCLUSION

The increasingly global nature of the supply chain adds another dimension to the complexity issue. As companies large and small have turned to global markets to keep material costs low they find themselves facing new challenges. Weak safety standards and less developed infrastructures abroad leave manufacturers vulnerable to contamination or counterfeiting. A strong supplier qualification process is necessary to ensure quality in a global, complicated supply chain.

The guarantee of product quality has long been considered a pillar of corporate responsibility. However, recent events have demonstrated that ensuring the integrity of raw materials purchases is a growing challenge for many organisations. As supply chains continue to globalise, the need for robust supplier qualification and supplier management programmes becomes increasingly critical.

By addressing the challenges of supply quality, companies can benefit in many ways:

- First and foremost, a strong supplier quality programme reduces business risk.
- Secondly, understanding and documenting the supply chains of your critical suppliers will help identify improvement opportunities.
- Strong quality documentation will ensure there is a path of resolution and recourse if there is an issue.
- Finally, you can stay in front of the quickly changing regulatory environment.

This study unit focused on supplier quality management by addressing what supplier quality is, and why we should be concerned with supplier quality. We then proceeded to list the factors affecting supply management's role in managing supplier quality. An in-depth discussion on supplier quality management using a total quality management perspective followed. We also considered pursuing six sigma supplier quality, and using ISO standards and MBNQA criteria to assess supplier quality systems.

In study unit 7, we will outline supplier management and supplier development as the tool for creating a world-class supply base.

ASSESSMENT

(1) Define the concept "supplier quality".
(2) List the reasons why supplier quality is so important.
(3) List the factors affecting supply management's role in managing supplier quality.
(4) Write a detailed report on supplier quality management by using a total quality management perspective.
(5) Explain how to use ISO standards and MBNQA criteria to assess supplier quality systems.

Also attempt to answer the discussion questions on pages 318 of Monczka et al. (2016).

Study unit 7

SUPPLIER MANAGEMENT AND DEVELOPMENT: CREATING A WORLD-CLASS SUPPLY BASE

CONTENTS

STUDY UNIT AIM

The aim of this study unit is to familiarise you with supplier management and development as the platform for creating a world-class supply base.

STUDY UNIT LEARNING OUTCOMES

After studying this study unit, you should be able to

- provide a detailed explanation of supplier performance measurement
- explain the use of rationalisation and optimisation as a platform for creating a manageable supply base
- outline supplier development as a strategy for improvement using a South African example
- provide suggestions to overcome the barriers to supplier development
- explain the various categories of supply risk
- make suggestions how to overcome supply risk
- outline the critical issues in the managing of sustainability in the supply base

KEY CONCEPTS

- supplier performance measurement
- supplier measurement decisions
- supplier measurement techniques
- rationalisation

- optimisation
- a manageable supply base
- supplier development
- Competitive Supplier Development Programme
- a process map
- buyer-specific barriers
- buyer-supplier interface barriers
- supplier-specific barriers
- supply risk
- supply base sustainability

Study chapter 9 in Monczka *et al.* (2016).

GETTING AN OVERVIEW

Supplier management and development is gaining more and more attention within South African organisations, and even the government has placed a high-level of importance on ensuring that supplier's capabilities are of world-class standard. As shareholder representative on behalf of Government, the Department of Public Enterprises (DPE) has a mandate to provide oversight management of nine State Owned Enterprises (SOE): Alexkor, Broadband Infraco, Denel, Eskom, the Pebble Bed Modular Reactor, South African Airways, South African Express Airways, South African Forestry Company (Ltd) and Transnet.

What will you learn from this study unit? We will provide a detailed explanation of supplier performance measurement; explain the use of rationalisation and optimisation as a platform for creating a manageable supply base; outline supplier development as a strategy for improvement with the aid of a South African example and provide suggestions to overcome the barriers to supplier development.

Read the case study on page 323 in Monczka *et al.* (2016).

7.1 SUPPLIER PERFORMANCE MEASUREMENT

Supplier performance measurement is the process of measuring, analysing, and managing supplier performance for the purposes of reducing costs, mitigating risk, and driving continuous improvements in value and operations. The prescribed book discusses this section as follows:

- Supplier measurement decisions
  - What to measure
  - Measurement and reporting frequency
  - Use of measurement data
- Types of supplier measurement techniques
  - Categorical system
  - Weighted-point system
  - Cost-based system

7.2 RATIONALISATION AND OPTIMISATION: CREATING A MANAGEABLE SUPPLY BASE

The basic question to answer in this section is: "Is your organisation's supply base the right size?" Rationalising and optimising the supply base means utilising both the right number of suppliers and the right suppliers. This requires you to categorise your spend and identify current and potential suppliers for each category. After completing these tasks, you have five options for the supply base in each category according to Dominick (2006):

- Reduce it

Many think of this as the only rationalisation option, but it's not. This option works best when you already have enough qualified suppliers and are sure that no others can offer a cost, quality, or other advantage. You just consolidate spend with a subset of currently-used suppliers. But don't assume that you're already using the best suppliers. With global sourcing, buyers can find top vendors across the planet.

- Increase it

Despite common teachings, fewer suppliers isn't always better. By blindly following the supplier reduction trend, you might award business in one category to a supplier who performs well in another category. This strategy is flawed when the supplier is not as competent in the second category. In many cases, it is better to have two suppliers who can deliver great performance in two categories than one supplier who performs well in one category but poorly in the other. When analysing your categorised spend, find suppliers who appear across categories. Ask if they are truly the best choice in each category and what the measurable advantages are to using them across categories.

- Maintain it

If you've done a good job, there is no need to change. Period.

- Keep the size, change the mix

Many organisations set "number-of-suppliers goals" and measure success simply by the numbers. But the quality of suppliers is more important than the quantity of suppliers. Even if you have the right number of suppliers, you may need to replace the poor performers with good ones.

- Expand then reduce

Sometimes, you are under pressure to reduce the supply base. But the suppliers you are currently using are so inadequate that you just can't imagine depending more heavily on any of them. So, you may have to introduce more suppliers to identify the best ones in the market before you start ousting the poor performers. But you also need to make sure you're not trading one problem for another. New suppliers must prove themselves, so you add them to the list to allow more choice for a future supplier reduction. There is nothing wrong with this plan. Just communicate it as a two-step approach to good supply base rationalisation.

The prescribed book discusses the advantages of a rationalised and optimised supply base, the possible risks of maintaining fewer suppliers, the formal approaches to supply base rationalisation and ends of with a summary of supplier rationalisation and optimisation.

Study pages 332 to 339 in Monczka *et al*. (2016).

7.3 SUPPLIER DEVELOPMENT: A STRATEGY FOR IMPROVEMENT

Supplier development is generally considered to be an organisation's undertaking to improve its supplier's capabilities – more specifically, it may be interpreted as a firm's attempt to transfer (or replicate) some aspects of its in-house organisational capability across firm boundaries. This requires not only financial and resource commitment, but also a distinctive organisational and governance structure that facilitates long-term cumulative learning. In the automobile industry, automakers may send their own engineers to the supplier's shop floor to help solve a problem with a specific component in order to meet the product launch date. They may provide training courses for suppliers' employees in techniques such as TWI, Quality Circles, Value Engineering, and simultaneous engineering. They may also ask a supplier to work on a specific production line for an extended period with a view to learning heuristics to achieve cost reduction, inventory reduction or quality improvement (Sako 2003).

This concept is discussed in the prescribed book under the following sub-headings:

- A process map for supplier development
  - Step 1: identify critical commodities for development
  - Step 2: identify critical suppliers for development
  - Step 3: form cross-functional development team
  - Step 4: meet with supplier's top management team
  - Step 5: identify opportunities and probability for improvement
  - Step 6: define key metrics and cost-sharing mechanics
  - Step 7: reach agreement on key projects and joint resource requirements
  - Step 8: monitor status of projects and modify strategies as appropriate
- Supplier development efforts that sometimes don't work

Study pages 339 to 343 in Monczka *et al*. (2016).

7.4 OVERCOMING THE BARRIERS TO SUPPLIER DEVELOPMENT

The prescribed book highlights the following categories of barriers to supplier development: (1) buyer-specific barriers; (2) buyer-supplier interface barriers; (3) supplier-specific barriers and (4) lessons learned from supplier development.

Study pages 343 to 349 in Monczka *et al*. (2016).

7.5 MANAGING SUPPLY BASE RISK

All supply and sourcing decisions contain some risks that should be anticipated and action should be taken to limit the risks. There are two basic questions to be answered in this section: (1) what are the common sources of risk, and (2) how can they be manage effectively.

The prescribed book addresses the following categories of risk:

- political risk
- market risk
- sourcing risk
- financial risk
- supplier company risk

There are various management tools that can be used by managers to manage risk effectively. The prescribed book addresses the following management tools to reduce supply base risk.

- Inventory
- Multiple sourcing
- Use of third party intermediaries
- Scenario analysis
- Currency hedging
- Insurance
- Automated visibility and early warning systems

Study pages 349 to 357 in Monczka, *et al.* (2016)

7.6 MANAGING SUSTAINABILITY IN THE SUPPLY BASE

Media coverage and warnings on global warming have been on the increase and this leads put pressure on organisations to produce in a more sustainable manner and to source from sustainable conscious suppliers. Sustainability consists of economic considerations

but also environmental and social considerations, promoting the long term survival of industries and organisations.

Study pages 357 to 358 in Monczka, *et al.* (2016).

CONCLUSION

What did you learn from this study unit? We provided a detailed explanation of supplier performance measurement; explained the use of rationalisation and optimisation as a platform for creating a manageable supply base; outlined supplier development as a strategy for improvement and provided suggestions to overcome the barriers to supplier development.

Topic 4 addresses the strategic sourcing process, and we will start of the discussion with strategic cost management in study unit 8.

ASSESSMENT

(1) Provide a detailed explanation of supplier performance measurement.
(2) Explain the use of rationalisation and optimisation as a platform for creating a manageable supply base.
(3) Outline supplier development as a strategy for improvement. Use a South African example to substantiate your answer.
(4) Provide suggestions to overcome the barriers to supplier development.
(5) Identify and discuss the general categories of risk.
(6) Identify the tools available to reduce, analyse, identify and to monitor supply base risk.
(7) Outline the critical issues in the managing of sustainability in the supply base.

Also attempt to answer the discussion questions on pages 360 to 361 of Monczka et al. (2016).

PART 4

STRATEGIC SOURCING PROCESS

Study unit 8

Strategic cost management

Study unit 9

Purchasing and suply chain analysis: tools and techniques

Study unit 10

Contract management

Study unit 8

STRATEGIC COST MANAGEMENT

CONTENTS

STUDY UNIT AIM

The aim of this study unit is to examine the strategic cost management approach.

STUDY UNIT LEARNING OUTCOMES

After studying this study unit, you should be able to

- explain a structured approach to cost reduction with the aid of a diagram
- outline the variables that directly and indirectly influence an item's price
- distinguish between the different cost analysis techniques
- provide an in-depth discussion of total cost of ownership
- distinguish between the collaborative approaches to cost management

KEY CONCEPTS

- a structured approach to cost reduction
- price analysis
- market structure
- economic conditions
- pricing strategy of the seller
- market-driven pricing models
- price volume model

- market share model
- market skimming model
- revenue pricing model
- promotional price model
- competition pricing model
- cash discounts
- producer price index
- cost analysis techniques
- cost-based pricing models
- cost mark-up pricing model
- margin pricing model
- rate-of-return pricing model
- product specifications
- reverse price analysis
- break-even analysis
- total cost of ownership
- building a total cost of ownership model
- opportunity costs
- collaborative approaches to cost management
- target pricing
- cost-savings sharing pricing
- an example of target pricing and cost-savings sharing

Study chapter 11 in Monczka *et al*. (2016).

GETTING AN OVERVIEW

In today's competitive environment the most efficient companies view all of their spend (direct and indirect) as an investment; they make smart spending decisions based on a strategic vision and their internal capability to deliver value from that investment. Traditionally companies have been under pressure to cut costs in the short term without really thinking about sustainable change and integration with the overall business strategy. In the current business environment of increased global competition, new markets, increasing regulation and changing demographics, successful companies must develop a multifaceted and renewable cost competence.

The old way of viewing all spend as simply a cost is not effective today. Yesterday's tactical solutions, despite consuming considerable resources, have failed in many organisations to deliver the planned reductions to the cost base and have not contributed to the creation of true competitive advantage in the long term. In many cases the cost savings achieved in the short term have leaked away and the cost base has returned to previous high levels, but with the result of considerable damage to corporate structure, image, culture and morale.

It's time to adopt some new thinking – and consider cost as a strategic issue. It needs to be continuously optimised in the context of the entire business model of the organisa-

tion. Often, the very business model itself may need to change to ensure the organisation remains competitive.

In addition, execution of any chosen strategy has to be carefully managed to ensure the appropriate balance between revenue growth and cost. Organisations that are taking the investment approach to managing cost are thriving in this new environment, striking a balance between a competitive cost structure, cost effective strategic execution and investment in the future. They are delivering a robust response to the cost challenge.

Consultants, such as PricewaterhouseCoopers, are currently helping companies to introduce and embed an integrated strategic cost management approach. You can also have an impact in this area after studying the following aspects: a structured approach to cost reduction; the variables that directly and indirectly influence an item's price; the different cost analysis techniques; total cost of ownership and collaborative approaches to cost management.

Read the case study on pages 410 to 411.
Also read the introduction on pages 411 to 412.

We suggest that you start this section by reviewing exhibit 11.3 and 11.4 in the prescribed book.

8.1 A STRUCTURED APPROACH TO COST REDUCTION

In the introduction in your study guide you have learnt the following equation:

Value = (Quality + Technology + Service + Cycle time) ÷ Price

Keep this equation in mind while you study through this study unit. This study unit focuses on the 'price' component of the equation. Price is a function of the costs of procuring or producing a product or service.

Study pages 412 to 418 in Monczka *et al*. (2016).

8.2 PRICE ANALYSIS

The prescribed book discusses the concept "price analysis" adequately under the following sub-headings:

- market structure
- economic conditions
- pricing strategy of the seller

- market-driven pricing models (price volume model; market share model; market skimming model; revenue pricing model, promotional price model, competition pricing model and cash discounts)
- using the producer price index to manage price

Study pages 418 to 428 in Monczka *et al*. (2016).

Do not forget to use the figures (exhibits) to assist you to understand concepts. The examination paper might require you to use figures, diagrams or sketches to illustrate an explanation of concepts.

8.3 COST ANALYSIS TECHNIQUES

More and more organisations are shifting their attention away from price management and toward cost management. In so doing, there may be opportunities to reduce costs that are not available when the discussion focuses only on price. The prescribed book deals with this section as follows:

- cost-based pricing models (cost mark-up pricing model, margin pricing model and rate-of-return pricing model)
- product specifications
- estimating supplier costs using reverse price analysis
- break-even analysis (including an example)
- building a should-cost model

Study pages 428 to 444 in Monczka *et al*. (2016).

8.4 TOTAL COST OF OWNERSHIP

Total Cost of Ownership (TCO) modelling is a tool that systematically accounts for all costs related to a product, service or capital equipment that are incurred over its expected life. The prescribed book addresses the following issues:

- building a total cost of ownership model
- the importance of opportunity costs
- important factors to consider when building a TCO model
- example of a TCO model

Study pages 444 to 449 in Monczka *et al*. (2016).

8.5 COLLABORATIVE APPROACHES TO COST MANAGEMENT

Outstanding purchasing, sourcing and supply professionals often learn the hard way that the most effective way to reduce costs for strategic commodities is not through price haggling, but through effective collaboration. The prescribed book addresses this issue by discussing the following aspects:

- defining target pricing defined
- defining cost-savings sharing pricing defined
- indicating prerequisites for successful target and cost-based pricing when to use collaborative cost management approaches
- explain an example of target pricing and cost-savings sharing

Study pages 449 to 453 in Monczka *et al*. (2016).

Read the practical example on pages 454 to 456 in Monczka *et al*. (2016).

CONCLUSION

Strategic cost management has become an essential area nowadays. While formulating the strategy for the accomplishment of organisational overall objectives, different cost drivers should be clearly identified. Identification of key cost drivers helps companies to focus on key activities that will constitute almost 90% of the total costs. In view of this, the importance of strategic cost management should not be underestimated. This implies that organisations should be installing an appropriate framework of strategic cost management to reduce its costs in key areas on which the success of organisation is heavily dependent.

This study unit addressed the following aspects: a structured approach to cost reduction; the variables that directly and indirectly influence an item's price; the different cost analysis techniques; total cost of ownership and collaborative approaches to cost management.

We will provide all the tools and techniques required for purchasing and supply chain analysis in study unit 9.

ASSESSMENT

(1) Explain a structured approach to cost reduction with the aid of a diagram.
(2) Outline the variables that directly and indirectly influence an item's price.
(3) Distinguish between the different cost analyses techniques.
(4) Provide an in-depth discussion of total cost of ownership distinguish between the collaborative approaches to cost management.

Also attempt to answer the discussion questions on pages 456 to 457 of Monczka et al. (2016).

Study unit 9

PURCHASING AND SUPPLY CHAIN ANALYSIS: TOOLS AND TECHNIQUES

CONTENTS

STUDY UNIT AIM

The aim of this study unit is to explain the tools and techniques utilised when doing purchasing, sourcing and supply analysis.

STUDY UNIT LEARNING OUTCOMES

After studying this study unit, you should be able to

- define the concept of project management
- distinguish between the various project phases with the aid of a diagram
- outline project planning and control techniques
- grasp the rules for constructing a project management network
- discuss project management with time estimates
- provide an in-depth discussion on learning-curve analysis
- explain the concept "value analysis/value engineering" in detail
- outline quantity discount analysis
- explain process mapping
- explain value stream mapping

KEY CONCEPTS

- project management
- project success

- project phases
- project planning and control techniques
- project management network
- project management example: sourcing strategy
- project management with time estimates
- learning-curve analysis
- experience curve
- learning curve illustrated
- learning-curve problem
- value analysis
- value engineering
- value analysis process
- quantity discount analysis
- process mapping
- value stream mapping

Study chapter 12 in Monczka *et al*. (2016).

GETTING AN OVERVIEW

No purchasing, sourcing and supply professional can afford to be unaware of purchasing and supply chain analysis tools and techniques. Traditionally, the mechanics of purchasing and supply analysis was carried out by hand: typing up data, photocopying them, "coding" by marking them up with markers or pencils, cutting and pasting the marked segments onto file cards, sorting and shuffling cards, and typing up the results of the investigation in a report.

Read the case study on pages 460 to 461 of Monczka *et al*. (2016).

Activity 9.1

In order to simplify the purchasing and supply analysis concept and help you to understand the aim of the effort, choose an item that you purchase for your personal use, track your purchasing habits for a period and try to identify some trends in order to pinpoint improvements in your spending from your data.

Feedback

Comic books are an art form with unique origins planted firmly in America. One American, Justin, decided to track and analyse his purchasing and collecting habits of comic books for a complete calendar year. Here are his results:

SUMMARY SINGLE ISSUE COMIC BOOKS

Total single issues purchased: *259*

Total spend single issues:	*$777*
Average single issues purchased per week:	*4.98*
Average spend single issues per week:	*$14.94*

SUMMARY TPB/GN COMIC BOOKS

Total TPB/GN purchased:	*55*
Total spend TPB/GN:	*$1,200*
Average TPB/GN purchased per week:	*1.06*
Average spend TPB/GN per week:	*$23.08*

CATEGORY EXPLANATIONS

Keep:	*Something I intend to keep in the format it was originally purchased in.*
Upgrade:	*Something I'll upgrade to a better format, it's then divided into the "Keep" (new format) and "Giving" (old format) categories, a temporary category.*
Giving:	*Something I didn't like enough to keep, but is okay to give away to friends, family or co-workers.*
Selling:	*I don't sell single issues (Silver Age excluded) since they're not worth anything, but TPBs/GNs are sold to my LCS for cash or credit.*
Trashing:	*Something that was so dreadful I couldn't in good conscience even give it away; it finds a home in the recycle bin.*

SINGLE ISSUE CATEGORY BREAKDOWN

Keep:	*13% or 33 issues*
Upgrade:	*7% or 18 issues*
Giving:	*68% or 176 issues*
Selling:	*0% or 0 issues*
Trashing:	*12% or 32 issues*

TPB/GN CATEGORY BREAKDOWN

Keep:	*25% or 14 items*
Upgrade:	*0% or 0 items*
Giving:	*24% or 13 items*
Selling:	*51% or 28 items*
Trashing:	*0% or 0 items*

TRENDS

- *I'm giving away quite a few comics, particularly single issues, which comprise a huge quantity and dollar amount. I think this is evidence that I'm a fairly adventurous consumer and try a lot, but wow, I need to drive that number down. Looking at the numbers, if I had given away only the things I'd upgraded to a better format, it would have been just 46 issues given away for free, and not 176.*
- *I'm giving away more than half, nearer to 2/3 actually, of the single issues I buy, which is either foolishly generous or generously foolish. The numbers did trend down later in the year when gas prices went up and I really tried to be selective and cull my pull list; I expect it to continue to trend down over 2009 due to the economic crunch.*

- *Speaking purely from a project management standpoint, "Upgrade" was a stupid category to track because it's transitory and temporary and really holds limited value, other than to comment on how many books I was buying more than once for the same content. I could have basically put single issues in the "Keep" (rather than "Upgrade") category and then put the replacement into the "Keep" category, while the upgraded single issues eventually moved into the "Giving" category.*
- *The "Trashing" category is certainly amusing, but I should really just try to avoid it altogether. It basically comes down to the fact that there are some things I just want to read to be familiar with the content (like say, an issue of Nightwing for guilty pleasure and a childhood fondness for the character), but I know deep down that there's no way in hell I'm going to keep the book long term just by looking at it, so why buy it in the first place?*
- *Overall, I only keep about 20% of what I buy, which isn't very good odds. Essentially, there's only a 1 in 5 chance that something will make the grade and stay in my collection long term.*
- *I sell about 50% of the TPBs and GNs I buy, give away about 25%, and keep roughly 25% long term.*
- *I try a ton of stuff, there's good diversity with the breadth of publishers represented. I keep a relatively small percentage of items, and there's no easily identifiable trend available from this data. It must be according to some combination of my weird byzantine criteria and dwindling storage space.*
- *I did learn some things about my buying habits that enabled me to save some money and be an even more selective buyer. You can extrapolate which companies have a statistical probability to produce products that I'm likely to keep or upgrade … of course that's based on wildly unstable criteria, such as the creators or characters involved and I didn't track to that level of detail. Though I thought about taking it that one step further, you could track additionally by artist, writer, or even genre.*
- *In closing, let me just stress that this was a ton of work – something that I will not be repeating in 2009, save for tracking my total quantity of purchases and corresponding dollar amounts so that I can compare year over year changes. You have to be very disciplined about including every single purchase made, placing it in the correct category, then reviewing periodically when the categories change. You also have to be willing to build an insane Excel spreadsheet to track all of this, and track it for an entire year!*

It is difficult to believe that the advanced, complicated purchasing and supply analysis tools and techniques available today had their origin in such simple beginnings. The goal of purchasing and supply chain analysis remains the same, however, to complete an in-depth investigation into the acquisition of goods and services in order to establish trends and improve performance.

Let us concentrate on some of one of these useful tools and techniques by defining the concept of project management; by distinguishing between the various project phases with the aid of a diagram; outlining project planning and control techniques; grasping the rules for constructing a project management network and discussing project management with time estimates. We will also focus on other tools and techniques for purchasing and supply analysis, including learning-curve analysis, value analysis/value engineering, quantity discount analysis and process mapping.

This chapter in the prescribed book, although theoretically sound, is presented in a very practical manner. You should be able to recognise the examples from your own organisational experience!

9.1 PROJECT MANAGEMENT

Project management is a carefully planned and organised attempt to accomplish a specific effort or usually, a number of related efforts.

Projects can be classified as follows:

- civil engineering, construction, petrochemical, mining and quarrying projects that are normally undertaking at a site, exposed to the elements and remote from the contractor's office
- manufacturing projects aimed at the production of a piece of equipment or machinery, ship, aircraft, land vehicle or some item of specifically designed hardware
- management projects operations involving the management and coordination of activities to produce an end result that is not identifiable principally as an item of hardware or construction, such as the relocation of offices or installation of a new computer system
- research projects aimed at extending the boundaries of current scientific knowledge that are high risk because the outcomes are uncertain.

Project management includes developing a project plan, which includes defining project goals and objectives, specifying tasks or how goals will be achieved, what resources are needed, and associating budgets and timelines for completion. It also includes implementing the project plan, along with careful controls to stay on the "critical path", that is, to ensure the plan is being managed according to plan.

The concept is discussed in your prescribed book as follows:

- Defining project success
- Project phases
- Project planning and control techniques
- Rules for constructing a project management network
- Project management example: sourcing strategy
- Project management with time estimates

Study pages 462 to 475 in Monczka *et al*. (2016).

9.2 LEARNING-CURVE ANALYSIS

Learning curves are a graph that depicts the rate of learning, especially a graph of progress in the mastery of a skill against the time required to understand it. It is sometimes also referred to as a skill acquisition or experience curve. Fundamentally, it encapsulates the saying "skill comes from doing". The prescribed book provides a clear explanation on this subject by concentrating on:

Components of the learning or experience curve

- When to use the learning curve
- Learning curve illustrated
- Learning-curve problem

Study pages 475 to 479 in Monczka *et al*. (2016).

9.3 VALUE ANALYSIS/VALUE ENGINEERING

What is value analysis or value engineering? It is an orderly and creative method to increase the value of an item. This "item" can be a product, a system, a process, a procedure, a plan, a machine, equipment, a tool, a service or a method of working. The value of an item is how well the item does its function divided by the cost of the item:

Value of an item = performance of its function/cost

An item that does its function better than another, has more value. Between two items that perform their function equally well, the one that costs less is thus more valuable. The prescribed book addresses the following:

- Who is involved in value analysis?
- Tests for determining value in a product or service
- The value analysis process

Study pages 479 to 482 in Monczka *et al*. (2016).

9.4 QUANTITY DISCOUNT ANALYSIS

Are discounts for larger quantities real or illusionary? What is the maximum quantity you should buy in each price break? In specific quantities pricing there is a price for each quantity on the price list or quotation (1 unit for R10.00, 2 units for R9.50 each etc). Quantity discount analysis calculates the incremental price difference for each quantity and price. This process shows the real price that is being charged for the next quantity rather than average price for the entire quantity.

This analysis either confirms that you are in fact getting an increasing lower price as the unit volume increases or that the incremental unit price is increasing and decreasing as volume increases (irrational behaviour). What you would like to see are two lines starting from the same point with a gap between increasing as volume increases. Perform a QDA analysis on all pricing to determine if the price schedule you are analysing is rational (the discount is consistent with larger volumes) or irrational (the discount is not consistent with larger volumes).

Study pages 482 to 485 in Monczka *et al*. (2016).

9.5 PROCESS MAPPING

Process mapping is one of the oldest, simplest and most valuable techniques for streamlining work. It is also subtle and requires experienced facilitators for best results. A process map visually depicts the sequence of events to build a product or produce an outcome. It may include additional information such as cycle time, inventory, and equipment information.

The prescribed book provides a brief discussion of process mapping by using a very practical example from the automobile industry.

Study pages 485 to 487 in Monczka *et al*. (2016).

9.6 VALUE STREAM MAPPING

Value stream mapping is a flow diagram that will show each step of a specific process in a manufacturing environment. Which will indicate the value and non-value-adding steps? Value stream mapping is seen as the ultimate tool to identify waste, reduce process cycle times and implement process improvement. Value stream mapping document, analyse and improve the flow of information and or materials to produce a product or service for a final customer. It is seen as a lean manufacturing technique.

Study pages 487 to 490 in Monczka, *et al.* (2016).

GOOD PRACTICE EXAMPLE

Read the practical example on page 490 to 492 in Monczka *et al*. (2016).

CONCLUSION

Purchasing and supply chain analysis has at its core to complete an in-depth investigation into the acquisition of goods and services in order to establish trends and improve performance. We concentrated on defining the concept of project management in this study unit by distinguishing between the various project phases with the aid of a diagram; outlining project planning and control techniques; grasping the rules for constructing a project management network and discussing project management with time estimates. We also focused on other tools and techniques for purchasing and supply analysis, including learning-curve analysis, value analysis/value engineering, quantity discount analysis and process mapping.

Study unit 10 will establish the fundamentals of contract management.

ASSESSMENT

(1) Define the concept of project management.
(2) Distinguish between the various project phases with the aid of a diagram.
(3) Outline project planning and control techniques.
(4) What are the rules for constructing a project management network?
(5) Discuss project management with time estimates. Include an example to substantiate your answer.
(6) Provide an in-depth discussion on learning-curve analysis. Use the following sub-headings:

- *Components of the learning or experience curve*
- *When to use the learning curve*
- *Learning curve illustrated*
- *Learning-curve problem*

(7) Explain the concept "value analysis/value engineering" in detail.
(8) Outline quantity discount analysis.
(9) Explain process mapping with the aid of an example.
(10) Explain "value stream mapping" in detail.

Also attempt to answer the discussion questions on page 493 of Monczka et al. (2016).

Study unit 10

CONTRACT MANAGEMENT

CONTENTS

STUDY UNIT AIM

The aim of this study unit is to emphasize the important aspects of contract management relevant to a purchasing, sourcing and supply professional.

STUDY UNIT LEARNING OUTCOMES

After studying this study unit, you should be able to

- list and explain the elements of a contract
- outline how to go about writing a contract
- differentiate between the different types of contracts
- list and explain the benefits of long-term contracts
- list and explain the risks of long-term contracts
- outline the contingency elements of long-term contracts
- provide an in-depth discussion on non-traditional contracting
- suggest ways to settle contractual disputes

KEY CONCEPTS

- elements of a contract
- how to write a contract
- types of contracts
- fixed-price contracts

- cost-based contracts
- long-term contracts
- alliances
- partnerships
- benefits of long-term contracts
- risks of long-term contracts
- contingency elements of long-term contracts
- non-traditional contracting
- IT systems contracts
- minority- and women-owned business enterprise contracts
- consulting contracts
- construction contracts
- other types of contracts
- settling contractual disputes
- legal alternatives
- arbitration
- conflict resolution

Study chapter 14 in Monczka *et al*. (2016).

GETTING AN OVERVIEW

Read the case study on pages 534 to 535 of Monczka, *et al*. (2016).

Contracts provide a framework (the terms, pricing, and service levels of the stakeholder) by which an organisation manages and mitigates risk in its supplier relationships. As a result, contracts have become the living breathing documents that control the dynamics of everyday business in an ever increasing fashion. Although you do not have to be a contract specialist as a purchasing, sourcing and supply professional, you will have to be well-versed in all the important areas of contract management in order to ensure that the correct type of contract is drawn up for the specific agreement reached with the supplier.

This study unit will help you with that aim by explaining the elements of a contract, how to go about writing a contract and the different types of contracts. We will further address the benefits and risks of long-term contracts, as well as outline the contingency elements of long-term contracts. An in-depth discussion on non-traditional contracting will be included. Lastly, we will suggest ways to settle contractual disputes.

Study pages 535 to 537 in Monczka *et al*. (2016).

10.1 ELEMENTS OF A CONTRACT

We often see deals between large organisations make the headlines.

However, we seldom know what exactly such a contract consists of. This is addressed in this section of the prescribed book.

Study pages 537 to 542 in Monczka *et al*. (2016).

10.2 HOW TO NEGOTIATE AND WRITE A CONTRACT

You've noticed the changes in purchasing over the past few years–the changes that have purchasers doing less order processing and more contracting and relationship building with suppliers? This new role requires that you have a new skill set – contract writing. Yet most purchasing, sourcing and supply professionals don't know how to write a contract. This is troublesome – because if you aren't familiar with the advanced techniques of contract writing, you can put your organisation at risk and be committed to a poor performing supplier for years.

Study pages 542 to 543 in Monczka *et al*. (2016).

10.3 TYPES OF CONTRACTS

According to the prescribed book, purchasing contracts can be classified into different categories based on their characteristics and purpose. Focus your attention on the major types of contracts discussed in this section and the considerations when selecting contract types.

Study pages 543 to 549 in Monczka *et al*. (2016).

We suggest that you start this section by reviewing exchibit 14.1 in the prescribed book. This exhibit depicts the type of contracts.

10.4 LONG-TERM CONTRACTS IN ALLIANCES AND PARTNERSHIPS

A common method of classifying industrial buying contracts is based on the length of the contract term, either spot contracts, short-term contracts or long-term contracts.

The prescribed book discusses long-term contracts under the following headings:

- Benefits of long-term contracts
- Risks of long-term contracts
- Contingency elements of long-term contracts

Study pages 549 to 553 in Monczka *et al*. (2016).

10.5 NON-TRADITIONAL CONTRACTING

In addition to long-term contracts, organisations must also create special types of contracts with certain suppliers. These are discussed in the prescribed book:

- IT systems contracts
- Minority- and women-owned business enterprise contracts
- Consulting contracts
- Construction contracts
- Purchasing agreements
- Online catalogues and e-commerce contracts

Study pages 553 to 560 in Monczka *et al*. (2016).

10.6 SETTLING CONTRACTUAL DISPUTES

Study pages 560 to 556 in Monczka *et al*. (2016).

We suggest that you start the section by reviewing exhibit 14.4, "the means of settling Contractual Disputes" in the prescribed book.

Read the practical example on page 567 in Monczka *et al*. (2016).

CONCLUSION

Contract management requires the systematic management of contract creation, execution, compliance and analysis to maximise performance and minimise risk. With the increase in the complexity of doing business coupled with the increase in transaction volumes and value in an ever tightening regulatory framework has resulted in businesses taking note of the importance of establishing proper contracts with their suppliers.

We explained the elements of a contract, how to go about writing a contract and the different types of contracts in this study unit. We addressed the benefits and risks of long-term contracts, as well as outline the contingency elements of long-term contracts. An in-depth discussion on non-traditional contracting was included. Lastly, we suggested ways to settle contractual disputes.

ASSESSMENT

(1) List and explain the elements of a contract.
(2) Outline how to go about writing a contract.
(3) Differentiate between the different types of contracts.
(4) List and explain the benefits of long-term contracts.
(5) List and explain the risks of long-term contracts.
(6) Outline the contingency elements of long-term contracts.
(7) Provide an in-depth discussion on non-traditional contracting. Use the following sub-headings:

- *IT systems contracts*
- *Minority- and women-owned business enterprise contracts*
- *Consulting contracts*
- *Construction contracts*
- *Purchasing agreements*
- *Online catalogues and e-commerce contracts*

(8) Suggest ways to settle contractual disputes.

Also attempt to answer the discussion questions on pages 568 to 569 of Monczka et al. (2016).

GENERAL CONCLUSION ON THE MODULE

This brings us to the end of this module, in which we aimed to help you gain insight into strategic sourcing within a supply management context. We have now established that increasing dynamics of corporate markets and the effects of global competition have caused significant changes in the constellation of the business environment and put increasing pressure on companies to improve performance. In order to stay globally competitive companies are enforced to adapt to changing market environments more quickly and to seek for sustainable competitive advantage continuously. To improve overall corporate performance organisations aim to focus on core competencies, shifting away from vertical integration toward smaller, leaner operations.

Organisations strive to outsource non-core items by choosing to procure these goods and services from other firms rather than producing them internally and thus integrating competitive advantage of other companies (eg cost advantages, know-how advantages, innovation potentials and so forth). Accordingly a shift from generating total value added within the firm to a generation of total value added within supply chain networks can be observed. As a result, an increase of purchasing, sourcing and supply's strategic relevance due to the large impact of external spend on operating profit.

After studying this module you should be able to:

- provide an overview of purchasing and supply chain management
- outline the purchasing process
- explain supply management as a tool for creating competitive advantage
- differentiate between supply management and commodity strategy management
- discuss supplier evaluation and selection
- discuss supplier quality management
- assisting to create a world-class supply base
- develop, illustrate and explain the strategic sourcing process model
- discuss strategic cost management
- compile a checklist for contract management
- discuss the purchasing of services

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