

Procurement & Supply Chain
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Chapter 13

Performance measurement and
governance in purchasing

Learning objectives

- The factors that influence the way performance measurement is executed and evaluated.
- The key areas that should be considered when measuring and evaluating purchasing performance.
- The methods, techniques and performance measures that can be used.
- How to conduct a purchasing audit as a tool to improve purchasing performance.
- The value of benchmarking in purchasing.
- The role and importance of governance rules in purchasing.

Purchasing performance measurement

- On of the most important factor that influences the way in which purchasing results are measured, is how management looks upon the role and importance of the purchasing function.
 - **Operational and administrative activity:** Management evaluates purchasing operations primarily on parameters such as order backlog, administrative lead-time, number of orders issued, numbers of requests for quotations issued, adherence to existing procedures, etc.
 - **Commercial activity:** Management is aware of the savings potential which purchasing may represent. Parameters being used here are the total savings reported by purchasing, number of quotations issued, variance reports, inflation reports, etc.

Management may look at purchasing as a :

3. **Part of integrated logistics.** Management becomes aware that price hunting has its drawbacks and may lead to sub-optimization. Evaluation is aimed at quality improvement, lead time reduction and improving supplier delivery reliability.
4. **Strategic business area.** Purchasing is actively involved in deciding the company's core business. Management evaluates purchasing on i.e. the number of changes in its supply base and its contribution to the bottom line in terms of savings realized.

The way purchasing activities are measured and judged will differ for every company considered; this makes it almost impossible to develop one uniform method or system for performance measurement in purchasing

Table 13.1 How management may look at purchasing

Alternative viewpoints	Position of purchasing	Performance measures
Purchasing as an operational administrative function	Low in organization	Number of orders, order backlog, purchasing administration lead-time, authorization, procedures, etc.
Purchasing as a commercial function	Reporting to management	Savings, price reduction, ROI-measures, inflation reports, variance reports
Purchasing as a part of integrated logistics management	Purchasing integrated with other materials-related functions	Savings, cost reduction, supplier delivery reliability, reject rates, lead-time reduction
Purchasing as a strategic business function	Purchasing represented in top management	'Should cost' analysis, early supplier involvement, make-or-buy, supply base reduction

Assessing purchasing performance

Purchasing performance is considered to be the result of two elements:

- **Effectiveness:** Results actual / Results planned
(e.g. material costs, quality, logistics, innovation ..)
- **Efficiency:** Cost actual / Cost planned
(e.g. administrative lead times, orders per purchaser..)

Purchasing performance thus can be defined as the extent to which the purchasing function is able to realize its predetermined goals at the sacrifice of a minimum of the company's resources (i.e. costs)

What should be measured?

- There are five dimensions on which measurement and evaluation of purchasing activities can be based
 - Price / cost dimensions
 - Product / quality dimensions
 - Logistics dimensions
 - Supplier relationship dimension
 - Organizational dimensions
- *These dimensions are strongly related with each other...*

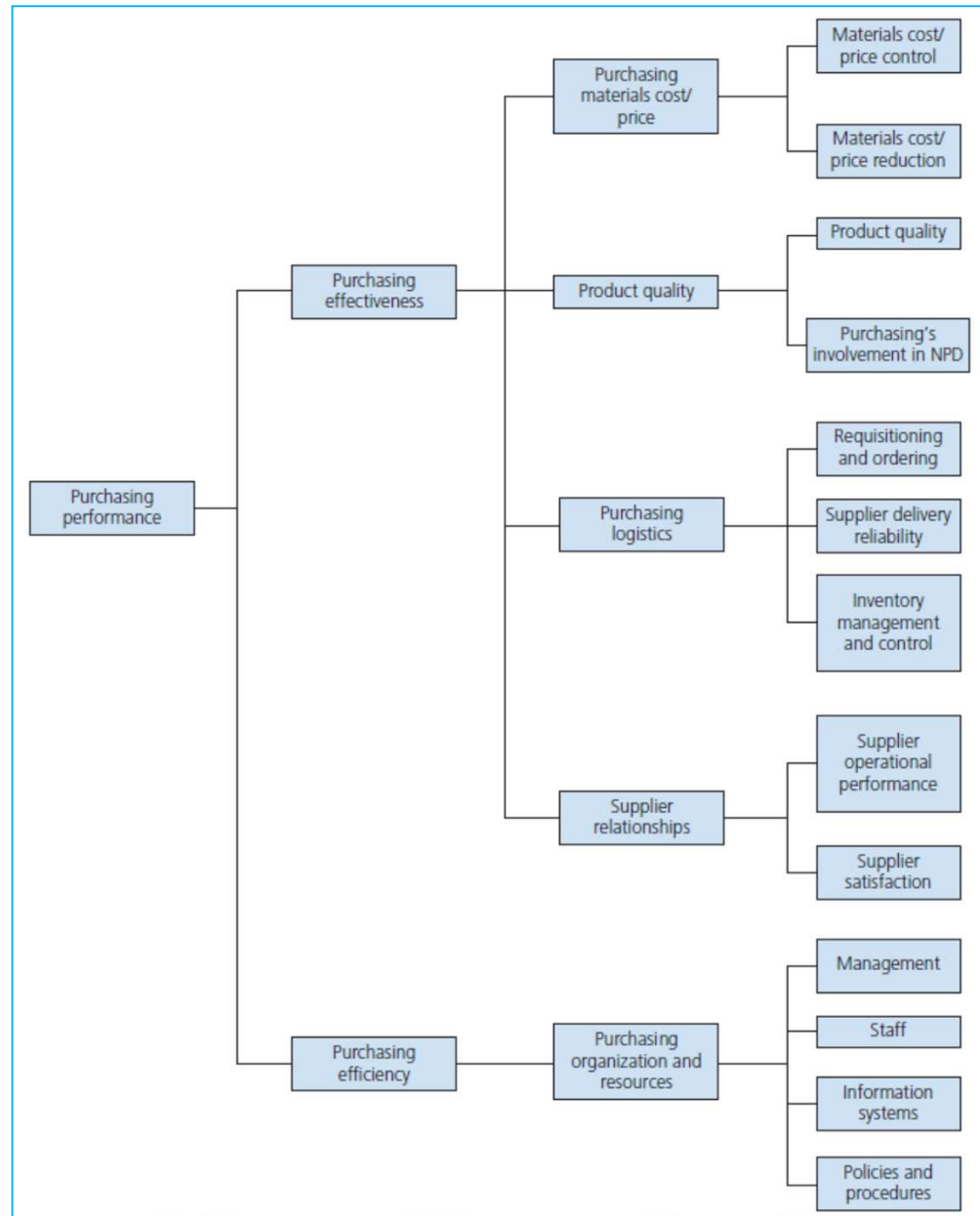


Figure 13.1 Key areas of purchasing performance measurements

Purchasing's strategic contribution should translate into **superior operational performance**.

This performance relates to flawless purchasing and business processes that are operated at the lowest possible cost.

Purchasing's operational performance is demonstrated by superior material cost control and production, superior supplier delivery performance, superior supplier delivery lead times and superior supplier product quality.

What should be measured?

Purchasing price/cost dimension

- This dimension refers to the relationship between standard and actual prices paid for materials and services. A distinction is made between:
 - **Price/cost control**
Continuous monitoring and evaluation of prices and price increases as they are announced by suppliers (e.g. ROI measures, materials budgets, price inflation reports)
 - **Price/cost reduction**
Continuous monitoring and evaluation of activities initiated to reduce costs in a structured way (e.g. searching new suppliers, value analysis, substitute materials)

Budgets are important instruments for performance planning and monitoring with regard to the price/cost dimension.

What should be measured?

Purchasing Product/Quality dimension

- This dimension refers to purchasing's responsibility to secure that products and services are delivered by suppliers in conformance with specifications and requirements.
 - **Purchasing's involvement in new product development** Examples of measures: number of man hours spent by purchasing on innovation projects, number of technical change orders and initial sampling reject rate
 - **Purchasing's contribution to Total Quality Control**
Examples of measures: reject rates on incoming goods, number of approved / certified suppliers

What should be measured?

Purchasing Logistics dimension

- This dimension refers to purchasing's role to contribute to an efficient incoming flow of purchased materials and services. This includes the following major activities:
 - Control of the timely and accurate handling of materials requisitions
 - Control of timely delivery by suppliers
 - Control of quantities delivered

Supplier evaluation and vendor rating are techniques used to monitor and improve supplier performance in terms of quality and delivery reliability.

What should be measured?

Supplier relationship dimension

Supplier relationships can be measured through:

- **Operational measures** – Monitor the operational relationship with the supplier. Examples:
 - Supplier price Vs targeted price.
 - Supplier quality
 - Supplier delivery reliability
 - Supplier invoice processing (no. invoices processed without difficulty).
- **Strategic measures** – Monitor the company's position versus its suppliers. Examples:
 - Internal customer satisfaction in working with specific suppliers
 - Supplier satisfaction in working with the company (on-time payment, quick responses to info requests, ease of getting new business, customer integrity).

Purchasing's organizational dimension

- Includes the major resources used to achieve goals and objectives of the purchasing function including:
 - **Purchasing staff**
 - Related to background, level, training and development, and competencies of purchasing personnel and its costs.
 - **Purchasing management**
 - The way the purchasing department is managed.
 - Related to quality and availability of purchasing strategies, action plans and reporting procedures.
 - Related to management style and communications structure.
 - **Purchasing procedures and guidelines**
 - Availability of procedures and working instructions for purchasing staff and suppliers to make sure all work is done in the most efficient manner.
 - **Purchasing information systems**
 - Efforts made to improve these systems to support purchasing staff and other employees in daily activities and to generate management information on activities and performance.

What should be measured?

- Organizational dimension of purchasing
 - This dimension includes the major resources that are used to achieve the goals and objectives of the purchasing function:
 - Purchasing staff
 - Purchasing Management
 - Purchasing procedures and guidelines
 - Purchasing information systems

Table 13.2 Examples of purchasing performance indicators

Area	Measurement aimed at	Continuous/ incidental	Examples
Purchased materials prices and costs	Purchased materials cost control	C	Materials budgets, variance reports, price inflation, reports, purchasing turnover
	Purchased materials cost reduction	C	Purchasing cost saving and avoidances, impact on return and investment
Product/quality of purchased materials	Early purchasing involvement in design and development	I	Time spent by purchasing on design and engineering projects, initial sampling reject rate (%)
	Incoming inspection quality control and assurance	C	Reject rate (%), line reject rate (%), quality costs per supplier
Purchasing logistics and supply	Monitoring requisitioning	C	Purchasing administrative lead-times, order backlog (per buyer)
Supplier relationships	Delivery reliability (quality and quantity)	C	Rush orders, delivery reliability index per supplier, materials shortages, inventory turnover ratio, JIT deliveries
	Supplier operational performance	C	Supplier quality cost, supplier reject rate, OTIF (On Time in Full) score
	Supplier relationship	I	Supplier satisfaction score
Purchasing staff and organization	Training and motivation of purchasing staff	I	Time and workload analysis of purchasing department, purchasing budget, purchasing and supply audit
	Purchasing management quality	I	
	Purchasing systems and procedures	I	
	Information systems	I	

What should be measured?

- Each of the five dimensions can be measured and evaluated at different levels of aggregation, such as:
 - **Line item level**
 - **Individual supplier level**
 - **Level of the individual buyer**
 - **Department level**
 - **Overall company level**

Purchasing materials budget

- Purchasing materials budget
 - Often determines over 50% of the cost price of end products
 - Planning and control instrument
 - Forecasting volumes of goods and prices
 - Frequent meetings purchasers and production planners
- Purchasing budget indirect materials
 - Maintenance equipment, spare parts, office supplies
 - Based on historical usage plus a certain margin
- Investment and tooling budget
 - Responsibility of management, purchasing has a supporting role
 - Based on production plan
- Departmental budget
 - Organizational costs based on a fixed amount of employees

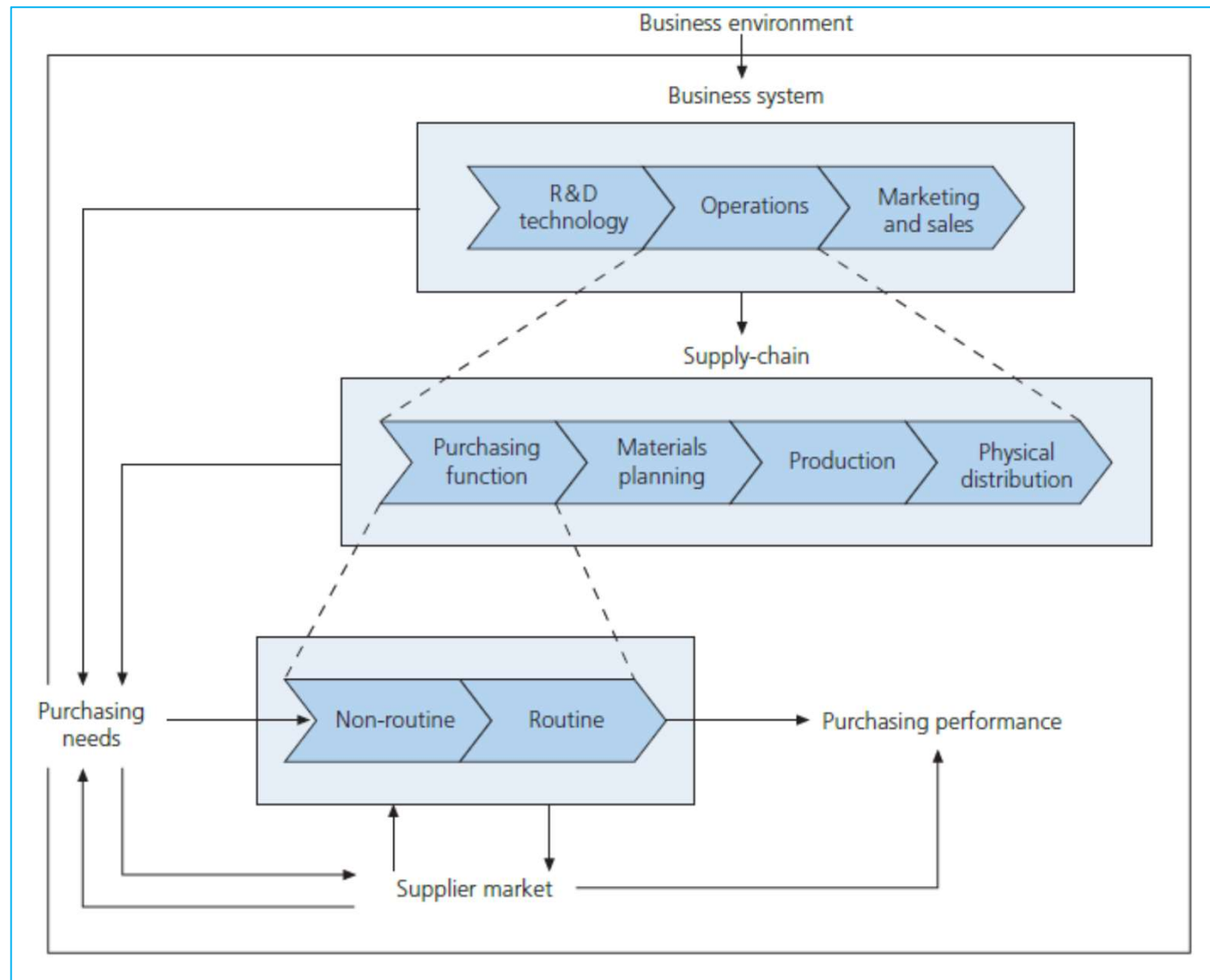
Purchasing savings

- Savings on purchasing
 - Cost avoidance, differences in historical and current prices without a sustainable character
 - Costs reduction, different supplier or change in specification; sustainable character
- Points of attention for a cost reduction program:
 - Clear objectives considering purchasing savings
 - Eliminate influences on which purchasing has no influence
 - Difference between expected and actual savings
 - Independent verification of purchasing savings

Ratios and key performance indicators

- Example of **measurements** for the quality of incoming goods and services
 - Percentage rejected deliveries related to the number of total deliveries made.
 - Percentage rejected, but repaired goods.
 - Cost related to repair of incoming goods and services.
 - Line reject rate, due to inferior quality of components.
 - Cost related to quality inspection.
 - Number of credit notes to suppliers.
 - Number of quality claims to suppliers and amounts involved.

Figure 13.3 Elements of a purchasing audit



Source: Van Weele
(1991, p.131).

Purchasing audit as a management tool

- Through a purchasing audit, management may assess the extent to which goals and objectives of the purchasing department are balanced with its resources.
- The audit must be conducted in such a way that people do not feel threatened and in a way which builds trust and generates professionalism.
- Audits can be preventive or corrective in nature:
 - Preventive audits can be compared with periodical check-ups.
 - Corrective audits focus on acute problems apparent in the functioning of the department.

Purchasing audit as a management tool

Factors that influence final purchasing performance:

- **Requirements** that the corporate system lays down for the purchasing function
- **Changes in the supply chain** of the company
- **Opportunities provided by the supplier market** to fulfill the materials requirements

Purchasing audit as management tool

Goals and objectives

Part 1

- **Goal orientation**

- What are the purchasing department's goals?
- What are the purchasing department's responsibilities?
- To what extent are the purchasing department's tasks stated in objective and verifiable terms?

- **Client orientation**

- Does the purchasing department communicate efficiently with its internal customers?
- Is there adequate reaction to the requirements and wants of the internal customers?
- Is the purchasing department sufficiently aware of new internal developments and changes in the supplier market?

- **Risk**

- What are the major risks with regard to price behavior of high-value items and with regard to availability of critical materials?
- Is purchasing sufficiently aware of these risks and what measures have been taken in order to cope with them?
- In general, is continuity of supply and purchasing operations sufficiently guaranteed?

Purchasing audit as management tool

Resources

- **Results and resources**

- To what extent does purchasing meet its tasks and objectives? Part 2
- Is the purchasing department adequately equipped in terms of people and systems to be able to meet expectations?
- What measures are taken in order to improve on results on the one hand and systems and human resources on the other hand?

- **Flexibility**

- Does purchasing adequately react to changing materials requirements and internal customer needs?
- Is purchasing sufficiently interested in and pursuing new technology?
- What important changes have taken place in the service and organization of the purchasing department?

- **Management**

- Is teamwork within purchasing department sufficiently developed?
- Is the purchasing department a well-respected partner for discussion of internal customer problems?
- What measures have been taken in order to keep the quality of human resources up to date?

Summary

- Performance measurement in purchasing needs to be considered as part of the purchasing management process (not in isolation).
- Assessing purchasing varies between companies depending on the view of management towards purchasing.
- Purchasing performance measurement is important as it leads to greater visibility and recognition by all other business functions.
- When measuring purchasing performance it's best to focus on purchasing effectiveness (extent previously agreed goals are met) and efficiency (resources needed to realise predetermined plans/goals).
- Purchasing audits can be used to analyse the purchasing organization.
- Performance measurement is part of procurement governance.
Without effective procurement governance it is impossible to control purchasing processes.