Module 1
Section A: Logistics Fundamentals

Term
Assemble-to-order (ATO)

Module 1
Section A: Logistics Fundamentals

Term
Distribution

Module 1
Section A: Logistics Fundamentals

Term
Echelon

Module 1
Section A: Logistics Fundamentals

Term
Exports

Module 1
Section A: Logistics Fundamentals

Term
Form utility

Module 1
Section A: Logistics Fundamentals

Term
Four Ps

Module 1
Section A: Logistics Fundamentals

Term
Imports

Module 1
Section A: Logistics Fundamentals

Term
Inventory management

1) The activities associated with the movement of material, usually finished goods or service parts, from the manufacturer to the customer. These activities encompass the functions of transportation, warehousing, inventory control, material handling, order administration, site and location analysis, industrial packaging, data processing, and the communications network necessary for effective management. [...] In many cases, this movement is made through one or more levels of field warehouses. Syn.: physical distribution. 2) The systematic division of a whole into discrete parts having distinctive characteristics.

A production environment where a good or service can be assembled after receipt of a customer's order. The key components (bulk, semi-finished, intermediate, subassembly, fabricated, purchased, packing, and so on) used in the assembly or finishing process are planned and usually stocked in anticipation of a customer order. Receipt of an order initiates assembly of the customized product. This strategy is useful where a large number of end products (based on the selection of options and accessories) can be assembled from common components. Syn.: finish-to-order. See: make-to-order, make-to-stock.

Products produced in one country and sold in another.

A level of supply chain nodes. For example, a supply chain with two independent factory warehouses and nine wholesale warehouses delivering product to 350 retail stores is a supply chain with three [of these] between the factory and the end customer. One [of these] consists of the two independent factory warehouses, one consists of the nine wholesale warehouses, and one consists of the 350 retail stores. Each [of these] adds operating expense, holds inventory, adds to the cycle time, and expects to make a profit. See: disintermediation.

A set of marketing tools to direct the business offering to the customer; include product, price, place, and promotion.

The value created by changing a good's form through a production process.

The branch of business management concerned with planning and controlling inventories.

Products bought in one country and produced in another.

Module 1
Section A: Logistics Fundamentals

Term
Line haul

Module 1
Section A: Logistics Fundamentals

Term
Logistics

Module 1
Section A: Logistics Fundamentals

Term
Make-to-order (MTO)

Module 1
Section A: Logistics Fundamentals

Term
Make-to-stock (MTS)

Module 1
Section A: Logistics Fundamentals

Term
Materials handling

Module 1
Section A: Logistics Fundamentals

Term
Materials management

Module 1
Section A: Logistics Fundamentals

Term
Order management

Module 1
Section A: Logistics Fundamentals

Term
Order-to-delivery cycle

1) In a supply chain management context, it is the subset of supply chain management that controls the forward and reverse movement, handling, and storage of goods between origin and distribution points. 2) In an industrial context, the art and science of obtaining, producing, and distributing material and product in the proper place and in proper quantities. 3) In a military sense (where it has greater usage), its meaning can also include the movement of personnel.

The portion of a transportation journey that moves between two transportation terminals. It is distinguished from and excludes the pickup and delivery portions of a journey used to acquire or distribute LTL freight. For motor carrier transportation, the shipment is loaded in a semi-permanent trailer configuration that maximizes the amount of freight that each driver can legally haul over that portion of the journey. This may involve hauling multiple trailers.

A production environment where products can be and usually are finished before receipt of a customer order. Customer orders are typically filled from existing stocks, and production orders are used to replenish those stocks. Syn.: produce-to-stock. See: assemble-to-order, make-to-order.

A production environment where a good or service can be made after receipt of a customer's order. The final product is usually a combination of standard items and items custom-designed to meet the special needs of the customer. Where options or accessories are stocked before customer orders arrive, the term assemble-to-order is frequently used. Syn.: build-to-order. See: assemble-to-order, make-to-stock.

The grouping of management functions supporting the complete cycle of material flow, from the purchase and internal control of production materials to the planning and control of work in process to the warehousing, shipping, and distribution of the finished product.

Movement and storage of goods inside the distribution center. This represents a capital cost and is balanced against the operating costs of the facility.

The period of time that starts when the customer places an order and ends when the customer receives the order.

The planning, directing, monitoring, and controlling of the processes related to customer orders, manufacturing orders, and purchase orders. Regarding customer orders, order management includes order promising, order entry, order pick, pack and ship, billing, and reconciliation of the customer account. Regarding manufacturing orders, order management includes order release, routing, manufacture, monitoring, and receipt into stores or finished goods inventories. Regarding purchasing orders, order management includes order placement, monitoring, receiving, acceptance, and payment of supplier.

Module 1
Section A: Logistics Fundamentals

Term
Packaging

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Module 1
Section A: Logistics Fundamentals

Term
Physical supply

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Module 1
Section A: Logistics Fundamentals

Term
Place utility

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Module 1
Section A: Logistics Fundamentals

Term
Possession utility

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Module 1
Section A: Logistics Fundamentals

Term
Stock keeping unit (SKU)

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Module 1
Section A: Logistics Fundamentals

Term
Suboptimization

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Module 1
Section A: Logistics Fundamentals

Term
Systems concept

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Module 1
Section A: Logistics Fundamentals

Term
Time utility

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The movement and storage of goods from suppliers to manufacturing. [Its cost] is ultimately passed on to the customer.

Materials surrounding an item to protect it from damage during transportation. The type of packaging influences the danger of such damage.

Product desirability created by marketing efforts.

Usefulness to the customer created by having the product delivered to a desired location.

A solution to a problem that is best from a narrow point of view but not from a higher or overall company point of view. For example, a department manager who refuses to allow employees to work overtime in order to minimize the department's operating expense may cause lost sales and a reduction in overall company profitability.

1) An inventory item. For example, a shirt in six colors and five sizes represents 30 [of these]. 2) In a distribution system, an item at a particular geographic location. For example, one product stocked at the plant and at six different distribution centers would represent seven [of these].

When a delivery gets to a customer at exactly the right time (not early, not late).

An attempt to create the most efficient complete system as opposed to the most efficient individual parts. A "whole process" or "whole company" operating system that is driven by cause and effect.

Module 1
Section A: Logistics Fundamentals

Term
Total cost concept

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Module 1
Section A: Logistics Fundamentals

Term
Transportation

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Module 1
Section A: Logistics Fundamentals

Term
Value added

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Module 1
Section A: Logistics Fundamentals

Term
Warehouse management and transportation execution systems

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Module 1
Section A: Logistics Fundamentals

Term
Warehousing

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Module 1
Section B: The Role, Value, and Cost of Logistics

Term
Activity-based costing (ABC)

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Module 1
Section B: The Role, Value, and Cost of Logistics

Term
Contribution

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Module 1
Section B: The Role, Value, and Cost of Logistics

Term
Contribution margin

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The function of planning, scheduling, and controlling activities related to mode, vendor, and movement of inventories into and out of an organization.

In logistics, the idea that all logistical decisions that provide equal service levels should favor the option that minimizes the total of all logistical costs and should not be used on cost reductions in one area (such as lower transportation charges) alone.

Logistics information systems that initiate and control the movement of materials between supply chain partners.

1) In accounting, the addition of direct labor, direct material, and allocated overhead assigned at an operation. It is the cost roll-up as a part goes through a manufacturing process to finished inventory. 2) In current manufacturing terms, the actual increase of utility from the viewpoint of the customer as a part is transformed from raw material to finished inventory; the contribution made by an operation or a plant to the final usefulness and value of a product, as seen by the customer. The objective is to eliminate all non-value-added activities in producing and providing a good or service.

[A] model—by time period—of resource costs created as a result of activities related to products or services or other items causing the activity to be carried out. Syn.: activity-based cost accounting, activity-based costing model.

The activities related to receiving, storing, and shipping materials to and from production or distribution locations.

An amount equal to the difference between sales revenue and variable costs.

The difference between sales price and variable costs. [It] is used to cover fixed costs and profits.

Module 1
Section B: The Role, Value, and Cost of Logistics

Term
Cost object

Module 1
Section B: The Role, Value, and Cost of Logistics

Term
Direct costs

Module 1
Section B: The Role, Value, and Cost of Logistics

Term
Direct labor

Module 1
Section B: The Role, Value, and Cost of Logistics

Term
Direct material

Module 1
Section B: The Role, Value, and Cost of Logistics

Term
Driver

Module 1
Section B: The Role, Value, and Cost of Logistics

Term
Electronic commerce (e-commerce)

Module 1
Section B: The Role, Value, and Cost of Logistics

Term
Fixed cost

Module 1
Section B: The Role, Value, and Cost of Logistics

Term
Globalization

1) In traditional cost accounting, variable costs that can be directly attributed to a particular job or operation. Direct material and direct labor are traditionally considered [to be this]. 2) In activity-based cost (ABC) accounting, a cost that can specifically be traced and is economically feasible to track to a particular cost object (e.g., the units produced, a production line, a department, a manufacturing plant). In contrast, if the cost must be allocated across various cost objects, it is an indirect cost. Based on the cost object under consideration, the classification of direct and indirect can change. ABC accounting assumes that more costs traditionally viewed as fixed costs are variable and can be traced to cost objects.

In activity-based cost accounting, anything for which a separate cost measurement is desirable. This may include a product, customer, project, or other work unit.

Material that becomes a part of the final product in measurable quantities.

Labor that is specifically applied to the good being manufactured or used in the performance of the service. Syn.: touch labor.

The use of computer and telecommunication technologies to conduct business via electronic transfer of data and documents.

1) In activity-based cost accounting, an operation that influences the quantity of work required and cost of an activity. Syn.: cost driver. 2) In the theory of constraints, an underlying cause that is responsible for several observed effects.

The interdependence of economies globally that results from the growing volume and variety of international transactions in goods, services, and capital, and also from the spread of new technology.

An expenditure that does not vary with the production volume; for example, rent, property tax, and salaries of certain personnel.

Module 1
Section B: The Role, Value, and Cost of Logistics

Term
Indirect costs

Module 1
Section B: The Role, Value, and Cost of Logistics

Term
Landed cost

Module 1
Section B: The Role, Value, and Cost of Logistics

Term
Operating expense

Module 1
Section B: The Role, Value, and Cost of Logistics

Term
Opportunity cost

Module 1
Section B: The Role, Value, and Cost of Logistics

Term
Supplies

Module 1
Section B: The Role, Value, and Cost of Logistics

Term
Supply chain management

Module 1
Section B: The Role, Value, and Cost of Logistics

Term
Theory of constraints (TOC) accounting

Module 1
Section B: The Role, Value, and Cost of Logistics

Term
Throughput accounting

This cost includes the product cost plus the costs of logistics, such as warehousing, transportation, and handling fees.

Costs that are not directly incurred by a particular job or operation. [These include certain utility costs, such as plant heating.] [It] is typically distributed to the product through the overhead rates.

1) The return on capital that could have resulted had the capital been used for some purpose other than its present use. 2) The rate of return investors must earn to continue to supply capital to a firm.

All the money an organization spends in generating goal units.

The design, planning, execution, control, and monitoring of supply chain activities with the objective of creating net value, building a competitive infrastructure, leveraging worldwide logistics, synchronizing supply with demand, and measuring performance globally.

Materials used in manufacturing that are not normally charged to finished production, such as cutting and lubricating oils, machine repair parts, glue, or tape. Syn.: general stores, indirect materials.

A management accounting method based on the belief that because every system has a constraint that limits global performance, the most effective way to evaluate the impact that any proposed action will have on the system as a whole is to look at the expected changes in the global measures of throughput, inventory, and operating expense.

A cost and managerial accounting system that accumulates costs and revenues into three areas—throughput, inventory, and operating expense. Does not create incentives (through allocation of overhead) to build up inventory. Is considered to provide a truer reflection of actual revenues and costs than traditional cost accounting, and is closer to a cash flow concept of income than is traditional accounting. Provides a simplified and more accurate form of direct costing that subtracts true variable costs (those costs that vary with throughput quantity). Unlike traditional cost accounting systems in which the focus is generally placed on reducing costs in all the various accounts, the primary focus of [this] is on aggressively exploiting the constraint(s) to make more money for the firm. Syn.: constraint accounting, throughput accounting.

Module 1
Section B: The Role, Value, and Cost of Logistics

Term
Tracing

Module 1
Section B: The Role, Value, and Cost of Logistics

Term
Variable cost

Module 1
Section C: Logistics Strategy within the Supply Chain

Term
Break-even analysis

Module 1
Section C: Logistics Strategy within the Supply Chain

Term
Core competencies

Module 1
Section C: Logistics Strategy within the Supply Chain

Term
Dwell

Module 1
Section C: Logistics Strategy within the Supply Chain

Term
Insourcing

Module 1
Section C: Logistics Strategy within the Supply Chain

Term
Link

Module 1
Section C: Logistics Strategy within the Supply Chain

Term
Make-or-buy cost analysis

An operating cost that varies directly with a change of one unit in the production volume (e.g., direct materials consumed, sales commissions).

In activity-based cost accounting, connecting resources to activities to cost objects using underlying causal drivers to understand how costs occur during normal business activities.

Bundles of skills or knowledge sets that enable a firm to provide the greatest level of value to its customers in a way that is difficult for competitors to emulate and that provides for future growth.

A study of the number of units or amount of time required to recoup an investment.

Using the firm's internal resources to provide goods and services. See: make-or-buy decision.

The duration of time between when cargo arrives in a terminal's in-transit storage area and when it is shipped out by clearance transportation.

A comparison of all the costs associated with making an item versus the cost of buying the item.

The transportation method used in a logistics system to connect the nodes of the system.

Module 1
Section C: Logistics Strategy within the Supply Chain

Term
Make-or-buy decision

Module 1
Section C: Logistics Strategy within the Supply Chain

Term
Offshore

Module 1
Section C: Logistics Strategy within the Supply Chain

Term
Outsourcing

Module 1
Section C: Logistics Strategy within the Supply Chain

Term
Product life cycle

Module 1
Section C: Logistics Strategy within the Supply Chain

Term
Product life cycle management (PLM)

Module 1
Section C: Logistics Strategy within the Supply Chain

Term
Strategic plan

Module 1
Section C: Logistics Strategy within the Supply Chain

Term
Strategic planning

Module 1
Section C: Logistics Strategy within the Supply Chain

Term
Subcontracting

Outsourcing a business function to another company in a different country than the original company's country.

The act of deciding whether to produce an item internally or buy it from an outside supplier. Factors to consider in the decision include costs, capacity availability, proprietary and/or specialized knowledge, quality considerations, skill requirements, volume, and timing.

1) The stages a new product goes through from beginning to end (i.e., the stages that a product passes through from introduction through growth, maturity, and decline). 2) The time from initial research and development to the time at which sales and support of the product to customers are withdrawn. 3) The period of time during which a product can be produced and marketed profitably.

The process of having suppliers provide goods and services that were previously provided internally. [This] involves substitution—the replacement of internal capacity and production by that of the supplier. See: subcontracting.

A plan for how to marshal and determine actions to support the mission, goals, and objectives of an organization.

The process of facilitating the development, use, and support of products that customers want and need. Helps professionals envision the creation and preservation of product information, both to the customer and along the reverse-logistics portion of the supply chain.

Sending production work outside to another manufacturer. See: outsourcing.

The process of developing a strategic plan. See: operational planning, strategic plan, tactical planning.

Module 1
Section C: Logistics Strategy within the Supply Chain

Term
Total cost of ownership (TCO)

Module 1
Section D: Logistics Framework

Term
Functional organizational structure

Module 1
Section D: Logistics Framework

Term
Matrix organizational structure

Module 1
Section D: Logistics Framework

Term
SWOT analysis

Module 1
Section D: Logistics Framework

Term
Strategic alliance

Module 1
Section D: Logistics Framework

Term
Supply chain risk

Module 1
Section E: Strategic Performance Management

Term
Audit

Module 1
Section E: Strategic Performance Management

Term
Balanced scorecard

An organizational structure based on functional specialization, such as sales, engineering, manufacturing, finance, and accounting.

The sum of all the costs associated with every activity of the supply stream.

An analysis of the strengths, weaknesses, opportunities, and threats of and to an organization. Useful in developing strategy.

An organizational structure in which two (or more) channels of command, budget responsibility, and performance measurement exist simultaneously. For example, both product and functional forms of organization could be implemented simultaneously—that is, the product and functional managers have equal authority and employees report to both managers.

The variety of possible events and their outcomes that could have a negative effect on the flow of goods, services, funds, or information resulting in some level of quantitative or qualitative loss for the supply chain.

A relationship formed by two or more organizations that share information (proprietary), participate in joint investments, and develop linked and common processes to increase the performance of both companies. Many organizations form [these] to increase the performance of their common supply chain.

A list of financial and operational measurements used to evaluate organizational or supply chain performance. Dimensions might include customer perspective, business process perspective, financial perspective, and innovation and learning perspectives. It formally connects overall objectives, strategies, and measurements. Each dimension has goals and measurements.

An objective comparison of actions to policies and plans.

Module 1
Section E: Strategic Performance Management

Term
Benchmarking

Module 1
Section E: Strategic Performance Management

Term
Best practice

Module 1
Section E: Strategic Performance Management

Term
Cost of goods sold (COGS)

Module 1
Section E: Strategic Performance Management

Term
Customer order fulfillment cycle time

Module 1
Section E: Strategic Performance Management

Term
Dashboard

Module 1
Section E: Strategic Performance Management

Term
Days of supply

Module 1
Section E: Strategic Performance Management

Term
Days outstanding

Module 1
Section E: Strategic Performance Management

Term
Digital Capabilities Model (DCM) for Supply Networks

1) A method or technique that consistently shows results superior to those achieved through other means, often used as a benchmark. Best practices can be defined within an organization, within an industry, or across industries. 2) Practices that have had a proven and positive impact on organizational or supply chain performance. They are categorized as follows: Current-Not emerging, not obsolete; Structured-Feature a clearly stated goal, scope, process, and procedure; Proven-Demonstrated in a working environment and linked to key metrics; Repeatable-Proven in multiple organizations and industries.

Comparing products, processes, and services to those of another organization thought to have superior performance. The target may or may not be a competitor or even in the same industry.

The average actual cycle time consistently achieved to fulfill customer orders. For each individual order, this cycle time starts at the order receipt and ends at customer acceptance of the order.

An accounting classification useful for determining the amount of direct materials, direct labor, and allocated overhead associated with the products sold during a given period of time. See: cost of sales.

1) Inventory-on-hand metric converted from units to how long the units will last. For example, if there are 2,000 units on hand and the company is using 200 per day, then there are 10 [of these]. 2) A financial measure of the value of all inventory in the supply chain divided by the average daily cost of goods sold rate.

An easy-to-read management tool similar to an automobile's dashboard designed to address a wide range of business objectives by combining business intelligence and data integration infrastructure. See: executive dashboard.

A reference model for supply chain professionals to guide the development of digital supply networks. The model is designed in a relational manner to help envision and then build the digitally enabled capabilities required to transform linear supply chains into a set of dynamic networks.

A term used to imply the amount of an asset or liability measured in days of sales. For example, accounts payable days are the typical number of days that a firm delays payment of invoices to its suppliers.

Module 1
Section E: Strategic Performance Management

Term
Key performance indicator (KPI)

Module 1
Section E: Strategic Performance Management

Term
Order fulfillment dwell time

Module 1
Section E: Strategic Performance Management

Term
Perfect order

Module 1
Section E: Strategic Performance Management

Term
Perfect order fulfillment

Module 1
Section E: Strategic Performance Management

Term
Performance measurement system

Module 1
Section E: Strategic Performance Management

Term
Return on supply chain fixed assets

Module 1
Section E: Strategic Performance Management

Term
Return on working capital

Module 1
Section E: Strategic Performance Management

Term
SCOR metrics

Any lead time caused by customer requirements during the order fulfillment process when no activity takes place. Note that this dwell time is different from idle time or non-value-added lead time, which are caused by inefficiencies in the organization's processes and therefore ultimately under responsibility of the organization. These latter kinds of idle time should not be deducted from Order Fulfillment Cycle Time.

1) A financial or nonfinancial measure that is used to define and assess progress toward specific organizational goals and that typically is tied to an organization's strategy and business stakeholders. Should not be contradictory to other departmental or strategic business unit performance measures. 2) A metric used to measure the overall performance or state of affairs. SCOR level 1 metrics are an example.

A measure of an organization's ability to deliver a perfect order. See: perfect order.

1) An order in which the "seven Rs" are satisfied: the right product, the right quantity, the right condition, the right place, the right time, the right customer, and the right cost. 2) A fulfillment metric used to measure order proficiency; i.e., the order meets the following criteria: on time, complete, accurate, and undamaged.

The return an organization receives on its invested capital in supply chain fixed assets. Includes the fixed assets used to plan, source, make, deliver, and return. Calculated as (supply chain revenue

A system for collecting, measuring, and comparing a measure to a standard for a specific criterion for an operation, item, good, service, business, etc. [It] consists of a criterion, a standard, and a measure. Syn.: metrics. See: performance criterion, performance measure, performance standard.

In SCOR, metrics measure the ability of processes to achieve the strategic objectives associated with performance attributes. SCOR recognizes three levels of predefined metrics: Level 1 metrics are diagnostics for the overall health of the supply chain. Level 2 metrics serve as diagnostics for the level 1 metrics. Level 3 metrics serve as diagnostics for level 2 metrics.

A measure of profit on the amount of captial consumed. Calculated as after-tax operating income divided by net working capital.

Module 1
Section E: Strategic Performance Management

Term
Standard

Module 1
Section E: Strategic Performance Management

Term
Supply Chain Operations Reference (SCOR) model

Module 1
Section F: Reengineering and Continuous Improvement

Term
Agile manufacturing

Module 1
Section F: Reengineering and Continuous Improvement

Term
Agile supply chain

Module 1
Section F: Reengineering and Continuous Improvement

Term
Business process reengineering (BPR)

Module 1
Section F: Reengineering and Continuous Improvement

Term
Continuous improvement (CI)

Module 1
Section F: Reengineering and Continuous Improvement

Term
Continuous process improvement (CPI)

Module 1
Section F: Reengineering and Continuous Improvement

Term
Continuous replenishment

A process reference model developed by the Supply Chain Council and endorsed by the Association for Supply Chain Management (ASCM) as the standard cross-industry diagnostic tool for supply chain management. [It] describes the business activities associated with satisfying a customer's demand, which include plan, source, make, deliver, return, and enable. Use of [this] includes analyzing the current state of a company's processes and goals, quantifying operational performance, and comparing company performance to benchmark data. [It] has developed a set of metrics for supply chain performance, and ASCM members have formed industry groups to collect best practices information that companies can use to evaluate their supply chain performance.

1) An established norm against which measurements are compared. 2) An established norm of productivity defined in terms of units of output per set time (units/hour) or in standard time (minutes per unit). 3) The time allowed to perform a specific job including quantity of work to be produced. See: standard time.

The ability to respond quickly to unpredictable changes in customer needs by reconfiguring operations.

Syn.: agile supply chain.

The act of making incremental, regular improvements and upgrades to a process or product in the search for excellence.

A procedure that involves the fundamental rethinking and radical redesign of business processes to achieve dramatic organizational improvements in such critical measures of performance as cost, quality, service, and speed. Any BPR activity is distinguished by its emphasis on process, rather than functions and products, and the customers for the process.

A process by which a supplier is notified daily of actual sales or warehouse shipments and commits to replenishing these sales (for example, by size or color) without stockouts and without receiving replenishment orders. The result is a lowering of associated costs and an improvement in inventory turnover. See: rapid replenishment, vendor-managed inventory.

A never-ending effort to expose and eliminate root causes of problems; small-step improvement as opposed to big-step improvement. Syn.: continuous improvement. See: kaizen.

Module 1
Section F: Reengineering and Continuous Improvement

Term
Cost of poor quality

Module 1
Section F: Reengineering and Continuous Improvement

Term
Define, Measure, Analyze, Improve, Control (DMAIC) process

Module 1
Section F: Reengineering and Continuous Improvement

Term
Employee empowerment

Module 1
Section F: Reengineering and Continuous Improvement

Term
Employee involvement (EI)

Module 1
Section F: Reengineering and Continuous Improvement

Term
Just in time (JIT)

Module 1
Section F: Reengineering and Continuous Improvement

Term
Kaizen

Module 1
Section F: Reengineering and Continuous Improvement

Term
Lean production

Module 1
Section F: Reengineering and Continuous Improvement

Term
Plan-do-check-action (PDCA)

A six sigma improvement process composed of five stages: (1) Determine the nature of the problem. (2) Measure existing performance and commence recording data and facts that offer information about the underlying causes of the problem. (3) Study the information to determine the root causes of the problem. (4) Improve the process by effecting solutions to the problem. (5) Monitor the process until the solutions become ingrained.

The costs associated with performing a task incorrectly and/or generating unacceptable output. These costs would include the costs of nonconformities, inefficient processes, and lost opportunities. See: quality costs.

The concept of using the experience, creative energy, and intelligence of all employees by treating them with respect, keeping them informed, and including them and their ideas in decision-making processes appropriate to their areas of expertise. Focuses on quality and productivity improvements.

The practice of giving non-managerial employees the responsibility and the power to make decisions regarding their jobs or tasks. It is associated with the practice of transfer of managerial responsibility to the employee. Allows the employee to take on responsibility for tasks normally associated with staff specialists. Examples include allowing the employee to make scheduling, quality, process design, or purchasing decisions.

The Japanese term for improvement; refers to continuing improvement involving everyone—managers and workers. In manufacturing, [this] relates to finding and eliminating waste in machinery, labor, or production methods. See: continuous process improvement.

A philosophy of manufacturing based on planned elimination of all waste and on continuous improvement of productivity. It encompasses the successful execution of all manufacturing activities required to produce a final product, from design engineering to delivery, and includes all stages of conversion from raw material onward. The primary elements of [this] are to have only the required inventory when needed; to improve quality to zero defects; to reduce lead times by reducing setup times, queue lengths, and lot sizes; to incrementally revise the operations themselves; and to accomplish these activities at minimum cost. In the broad sense, it applies to all forms of manufacturing—job shop, process, and repetitive—and to many service industries as well. Syn.: short-cycle manufacturing, stockless production, zero inventories.

A four-step process for quality improvement. In the first step (plan), a plan to effect improvement is developed. In the second step (do), the plan is carried out, preferably on a small scale. In the third step (check), the effects of the plan are observed. In the last step (action), the results are studied to determine what was learned and what can be predicted. The plan-do-check-action cycle is sometimes referred to as the Shewhart cycle (because Walter A. Shewhart discussed the concept in his book, “Statistical Method from the Viewpoint of Quality Control”) or as the Deming circle (because W. Edwards Deming introduced the concept in Japan, and the Japanese subsequently called it the Deming circle). Syns.: plan-do-check-act cycle, Shewhart circle of quality, Shewhart cycle. See: Deming circle.

A philosophy of production that emphasizes the minimization of the amount of all the resources (including time) used in the various activities of the enterprise. It involves identifying and eliminating non-value-adding activities in design, production, supply chain management, and dealing with customers. [It also employs] teams of multiskilled workers at all levels of the organization and use highly flexible, increasingly automated machines to produce volumes of products in potentially enormous variety. [It] contains a set of principles and practices to reduce cost through the relentless removal of waste and through the simplification of all manufacturing and support processes. Syn.: lean, lean manufacturing.

Module 1

Section F: Reengineering and Continuous Improvement

Term

Postponement

Module 1

Section F: Reengineering and Continuous Improvement

Term

Six sigma

Module 1

Section F: Reengineering and Continuous Improvement

Term

Value stream mapping

A methodology that furnishes tools for the improvement of business processes. The intent is to decrease process variation and improve product quality.

A product design or supply chain strategy that deliberately delays final differentiation of a product (assembly, production, packaging, tagging, etc.) until the latest possible time in the process. This shifts product differentiation closer to the consumer to reduce the anticipatory risk of producing the wrong product. The practice eliminates excess finished goods in the supply chain. This strategy is sometimes referred to as delayed differentiation.

A lean production tool to visually understand the flow of materials from supplier to customer that includes the current process and flow as well as the value-added and non-value-added time of all the process steps. It is used to help reduce waste, decrease flow time, and make the process flow more efficient and effective.