#### Module 1

Section A: Introduction to Supply Chains

# **Term**

Keiretsu

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# Module 1

Section A: Introduction to Supply Chains

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Service industry

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Section A: Introduction to Supply Chains

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Stakeholder

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Section A: Introduction to Supply Chains

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Supply chain

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Section A: Introduction to Supply Chains

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Supply chain management

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#### Module 1

Section B: Demand Analysis and Patterns

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Macro environment

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Section B: Demand Analysis and Patterns

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Market plan

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#### Module 1

Section B: Demand Analysis and Patterns

# **Term**

Market research

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A form of cooperative relationship among companies in 1) In its narrowest sense, an organization that provides Japan where the companies largely remain legally and an intangible product (e.g., medical or legal advice). 2) economically independent, even though they work In its broadest sense, all organizations except farming, closely in various ways such as financial backing. A mining, and manufacturing. The service industry member of [this] generally owns a limited amount of includes retail trade; wholesale trade; transportation stock in other member companies. [It] generally forms and utilities; finance, insurance, and real estate; around a bank and a trading company, but construction; professional, personal, and social "distribution" (supply chain) alliances [of this type] have services; and local, state, and federal governments. been formed of companies ranging from raw material suppliers to retailers. The network of suppliers that deliver products from raw People with a vested interest in a company, including materials to end customers through either an managers, employees, stockholders, customers, and engineered or transactional flow of information, goods, suppliers. and money. The design, planning, execution, control, and monitoring of supply chain activities with the objective The environment external to a business including of creating net value, building a competitive technological, economic, natural, and regulatory forces infrastructure, leveraging worldwide logistics, that marketing efforts cannot control. synchronizing supply with demand, and measuring performance globally. The output of the market planning process. The market plan includes the current market position, opportunity and issue analysis, marketing objectives and Syn.: marketing research. strategies, action plans, programs, projects, budgets,

and pro forma profit and loss statement and

management controls. Syn.: brand plan, product plan.

# Module 1 Module 1 Section B: Demand Analysis and Patterns Section B: Demand Analysis and Patterns **Term** Term Market share Microeconomics APICS CSCP Learning System © 2024 APICS CSCP Learning System Module 1 Module 1 Section B: Demand Analysis and Patterns Section B: Demand Analysis and Patterns **Term** Term Price elasticity Random variation APICS CSCP Learning System © 2024 APICS CSCP Learning System Module 1 Module 1 Section B: Demand Analysis and Patterns Section B: Demand Analysis and Patterns Term **Term** Seasonality

Seasonality	rrend
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Module 1 Section C: Demand Management	Module 1 Section C: Demand Management
<b>Term</b> Branding	<b>Term</b> Demand
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The analysis of the behavior of individual economic The actual portion of current market demand that a decision makers (individuals and firms). company or product achieves. The degree of change in buyer demand in response to changes in product price. Calculated by dividing the percentage of change in quantity bought by the percentage of change in price. Prices are considered A fluctuation in data that is caused by uncertain or elastic if demand varies with changes in price. If random occurrences. See: random events. demand changes only slightly when the price changes, demand is said to be inelastic. For example, demand for most medical services is relatively inelastic, but demand for automobiles is generally elastic. A predictable repetitive pattern of demand measured within a year where demand grows and declines. General upward or downward movement of a variable These are calendar-related patterns that can appear over time (e.g., demand, process attribute). annually, quarterly, monthly, weekly, daily and/or hourly. Syn.: seasonal variation. See: base series. A need for a particular product or component. The demand could come from any number of sources (e.g., a customer order or forecast, an interplant requirement, a branch warehouse request for a service part, or the manufacturing of another product). At the finished goods The use of a name, term, symbol, or design, or a level, demand data is usually different from sales data combination of these, to identify a product. because demand does not necessarily result in sales (i.e., if there is no stock, there will be no sale). There are generally up to four components of demand: cyclical component, random component, seasonal component, and trend component. See: booked orders.

# Module 1 Module 1 Section C: Demand Management Section C: Demand Management **Term Term** Demand management Demand management process APICS CSCP Learning System © 2024 APICS CSCP Learning System © 2024 Module 1 Module 1 Section C: Demand Management Section C: Demand Management **Term** Term Demand shaping Four Ps APICS CSCP Learning System © 2024 APICS CSCP Learning System © 2024 Module 1 Module 1 Section C: Demand Management Section C: Demand Management **Term** Term Life cycle analysis Order processing © 2024 APICS CSCP Learning System © 2024 APICS CSCP Learning System Module 1 Module 1 Section C: Demand Management Section C: Demand Management

# Term Order qualifiers APICS CSCP Learning System Term Order winners APICS CSCP Learning System © 2024

1) The function of recognizing all demands for goods and services to support the marketplace. It involves prioritizing demand when supply is lacking. [This] A process that weighs both customer demand and a facilitates the planning and use of resources for firm's output capabilities, and tries to balance the two. profitable business results. 2) In marketing, the process of planning, executing, controlling, and Demand management is made up of planning demand, communicating demand, influencing monitoring the design, pricing, promotion, and demand, and prioritizing demand. distribution of products and services to bring about transactions that meet organizational and individual needs. Syn.: marketing management. See: demand planning. The use of tactics such as price incentives, advertising, A set of marketing tools to direct the business offering product positioning, product modifications and to the customer; include product, price, place, and substitutions or trade programs to entice customers to promotion. purchase. A quantitative forecasting technique based on applying The activity required to administratively process a past patterns of demand data covering introduction, customer's order and make it ready for shipment or growth, maturity, saturation, and decline of similar production. products to a new product family. Those competitive characteristics that cause a firm's Those competitive characteristics that a firm must customers to choose that firm's goods and services exhibit to be a viable competitor in the marketplace. over those of its competitors.

Module 1 Section C: Demand Management	Module 1 Section C: Demand Management
<b>Term</b> Plan-do-check-action (PDCA)	<b>Term</b> Product life cycle
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Module 1 Section C: Demand Management	Module 1 Section D: Forecasting
<b>Term</b> Product life cycle management (PLM)	<b>Term</b> Bias
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Module 1 Section D: Forecasting	Module 1 Section D: Forecasting
<b>Term</b> Demand forecasting	<b>Term</b> Demand planning
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Module 1 Section D: Forecasting	Module 1 Section D: Forecasting
<b>Term</b> Forecast error	<b>Term</b> Forecasting
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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.

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 consistent deviation from the mean in one direction (high or low). A normal property of a good forecast is that it is not [affected by this]. See: average forecast error.

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.

The process of combining statistical forecasting techniques and judgment to construct demand estimates for products or services (both high and low volume; lumpy and continuous) across the supply chain from the suppliers' raw materials to the consumer's needs. Items can be aggregated by product family, geographical location, product life cycle, and so forth, to determine an estimate of consumer demand for finished products, service parts, and services. Numerous forecasting models are tested and combined with judgment from marketing, sales, distributors, warehousing, service parts, and other functions. Actual sales are compared to forecasts provided by various models and judgments to determine the best integration of techniques and judgment to minimize forecast error. See: demand management.

Forecasting the demand for a particular good, component, or service.

The business function that attempts to predict sales and use of products so they can be purchased or manufactured in appropriate quantities in advance.

The difference between actual demand and forecast demand. [It] can be represented several different ways: mean absolute deviation (MAD); mean absolute percentage error (MAPE); and mean squared error (MSE). See: mean absolute deviation (MAD), mean absolute percentage error (MAPE), mean squared error (MSE).

Module 1 Section D: Forecasting		Module 1 Section D: Forecasting
<b>Term</b> Leading indicator		<b>Term</b> Mean absolute deviation (MAD)
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Module 1 Section D: Forecasting		Module 1 Section D: Forecasting
<b>Term</b> Mix forecast		<b>Term</b> Safety factor
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Module 1 Section D: Forecasting		Module 1 Section D: Forecasting
<b>Term</b> Standard deviation		<b>Term</b> Tracking signal
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Module 1 Section E: Supply and Demand Aligni	ment	Module 1 Section E: Supply and Demand Alignment
<b>Term</b> Assemble-to-order (ATO)		<b>Term</b> Backlog
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The average of the absolute values of the deviations of observed values from some expected value. [This] can be calculated based on observations and the arithmetic mean of those observations. An alternative is to calculate absolute deviations of actual sales data minus forecast data. This data can be averaged in the usual arithmetic way or with exponential smoothing. See: forecast error, tracking signal.

A specific business activity index that indicates future trends. [Housing starts is an example of this] for the industry that supplies builders' hardware.

1) The ratio of average strength to the worst stress expected. It is essential that the variation, in addition to the average value, be considered in design. 2) The numerical value used in the service function (based on the standard deviation or mean absolute deviation of the forecast) to provide a given level of customer service. For example, if the item's mean absolute deviation is 100 and a .95 customer service level (safety factor of 2.06) is desired, then a safety stock of 206 units should be carried. This safety stock must be adjusted if the forecast interval and item lead times differ. Syn.: service factor. See: service function.

Forecast of the proportion of products that will be sold within a given product family, or the proportion of options offered within a product line. Product and option mix as well as aggregate product families must be forecasted. Even though the appropriate level of units is forecasted for a given product line, [...] material shortages and inventory problems [can be created if this is inaccurate].

The ratio of the cumulative algebraic sum of the deviations between the forecasts and the actual values to the mean absolute deviation. Used to signal when the validity of the forecasting model might be in doubt. See: forecast error, mean absolute deviation.

A measurement of dispersion of data or of a variable. [It] is computed by finding the differences between the average and actual observations, squaring each difference, adding the squared differences, dividing by n-1 (for a sample), and taking the square root of the result.

All the customer orders received but not yet shipped. Sometimes referred to as open orders or the order board. See: order backlog, past due order.

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.

#### Module 1

Section E: Supply and Demand Alignment

#### **Term**

Chase production method

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# Term

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Section E: Supply and Demand Alignment

Engineer-to-order (ETO)

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# Module 1

Section E: Supply and Demand Alignment

#### **Term**

Executive sales and operations planning (executive S&OP)

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Section E: Supply and Demand Alignment

#### **Term**

Level production method

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Section E: Supply and Demand Alignment

# **Term**

Make-to-order (MTO)

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Section E: Supply and Demand Alignment

# **Term**

Make-to-stock (MTS)

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Section E: Supply and Demand Alignment

# **Term**

Master planning

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#### Module 1

Section E: Supply and Demand Alignment

# Term

Package to order

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Products whose customer specifications require unique engineering design, significant customization, or new purchased materials. Each customer order results in a unique set of part numbers, bills of material, and routings. Syn.: design-to-order.

A production planning method that maintains a stable inventory level while varying production to meet demand. Companies may combine [this] and level production schedule methods. Syn.: chase strategy, chase-demand strategy.

A production planning method that maintains a stable production rate while varying inventory levels to meet demand. Syn.: level strategy, production leveling. See: level schedule.

The portion of sales and operations planning that defines executive decision-making processes to balance supply and demand at the volume level in families, fully integrates financial planning and operational planning, and provides a forum for establishing and linking high-level strategic plans with day-to-day operations. See: sales and operations planning.

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.

A production environment in which a good or service can be packaged after receipt of a customer order. The item is common across many different customers; packaging determines the end product. A group of business processes that includes the following activities: demand management (which includes forecasting and order servicing); production and resource planning; and master scheduling (which includes the master schedule and the rough-cut capacity plan).

# Module 1

Section E: Supply and Demand Alignment

# **Term**

Product family

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Section E: Supply and Demand Alignment

# **Term**

Quality

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Section E: Supply and Demand Alignment

# **Term**

Resource planning

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# Module 1

Section E: Supply and Demand Alignment

# **Term**

Sales and operations planning

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Conformance to requirements or fitness for use.

A group of products or services that pass through similar processing steps, have similar characteristics, and share common equipment prior to shipment or delivery to the customer. Can be from different overlapping product lines that are produced in one factory and often used in production planning (or sales and operations planning). See: product line.

A process to develop tactical plans that provide management the ability to strategically direct its businesses to achieve competitive advantage on a continuous basis by integrating customer-focused marketing plans for new and existing products with the management of the supply chain. The process brings together all the plans for the business (sales, marketing, development, manufacturing, sourcing, and financial) into one integrated set of plans. [This] is performed at least once a month and is reviewed by management at an aggregate (product family) level. The process must reconcile all supply, demand, and new product plans at both the detail and aggregate levels and tie to the business plan. It is the definitive statement of the company's plans for the near to intermediate term, covering a horizon sufficient to plan for resources and to support the annual business planning process. Executed properly, [this] process links the strategic plans for the business with its execution and reviews performance measurements for continuous improvement. See: aggregate planning, executive sales and operations planning, production plan, production planning, sales plan, tactical planning.

Capacity planning conducted at the business plan level. The process of establishing, measuring, and adjusting limits or levels of long-range capacity. [This] is normally based on the production plan but may be driven by higher-level plans beyond the time horizon of the production plan (e.g., the business plan). It addresses those resources that take long periods of time to acquire. [Decisions based on this] always require top management approval. Syn.: resource requirements planning. See: capacity planning, long-term planning.