

Glossary

Account Receivable a legally enforceable claim for payment held by a business entity against its customer for goods supplied or services rendered in execution of the customer's order, and recorded on the balance sheet. Such claims generally take the form of invoices raised by a business and delivered to the customer for payment within an agreed time frame.

Advance payment a payment made in advance of a prescribed event such as a due date or a contract commencement.

Agility a metric to measure how quickly a solution responds as the customer's resource load scales, allocating additional resources to the activity.

Algorithms an essential part of modern advanced applications. They are used for a range of tasks from recommending books, movies, and music to automating investments online. In stock markets, algorithms are plugged directly into an electronic market and trading happens without any human intervention. They suggest where the most money can be made faster and more accurately than any human being, according to the BBC.¹ Pedro Domingos offers a simple definition: "An algorithm is a sequence of instructions telling a computer what to do."² He goes on to explain that algorithms are reducible to three logical operations: AND, OR, and NOT. While these operations can be

These definitions are of necessity synthetic and therefore not necessarily very accurate. Please refer to the text for a fuller presentation. This glossary includes only selected terms, with the purpose of providing rapid clarification for readers during the course of their reading this book.

linked together in complex ways, at their core algorithms are built out of a relatively simple rationale.

Analyze the third phase of DMAIC. In it, the details of the process are analyzed to identify opportunities for improvement.

Andon meaning ‘lantern’ in Japanese, it refers to the technical management of notifications of errors and downtime typical of devices related to automation. In general, it consists of a luminous sign and a system of audible alarms (sirens) operated automatically or by pressing a button placed in the vicinity of the workstation.

App short for application—a program or piece of software, especially as downloaded by a user into a mobile device.

Application a software program that uses basic software, middleware, and network environments to achieve a specific function related to the purposes of the organization.

Application Programming Interfaces (API) a specification for the interfaces used by software components to communicate with each other. The specifications include a set of requirements that define how two pieces of software can interact with each other. It allows for moving data between applications. An API may include specifications for routines, data structures, object classes, and variables. These are important because they enable other programmers to use components of existing software, allowing for faster and more reliable software development. This is a major component of the fintech movement.

Audit the process by which financial records, business processes, and information systems are independently verified by an internal or external auditor.

Audit and Compliance It is the ability to collect, audit, and verify compliance information.

Authentication the verification of the identity of a user by a system or service.

Authorization the procedure to check whether a customer or another person inside or outside the organization has the right to do a certain action, for instance, to transfer funds or access sensitive data.

Automation the automated handling of services or goods. It is also the percentage of requests to the vendor handled without any human intervention.

Autonomation the second pillar of the Toyota Production System. Intelligent Automation essentially means transfer of intellectual work to machines.

Availability the metric that measures the percentage, usually calculated on a regular (such as monthly) basis, and net of planned or unplanned service downtimes of service coverage.

- Bank** a regulated financial institution licensed to receive deposits and undertake a range of activities such as commercial, retail and investment banking.
- Belt** the “belts” are the members of the working teams for Six Sigma projects, experts in the method and facilitators of its application.
- Benchmarking** the comparison of processes and/or measures to other processes and/or measures implemented by well-organized entities, or to a large number of them.
- Big Data** an all-encompassing term for any collection of data sets so relatively large and complex that it becomes difficult to process them using traditional data processing applications. Big data have the five V characteristics—volume, velocity, variety, veracity, and value.
- Black Belt** a term used to describe a level of expertise. The Black Belt can help or direct a group that applies the Six Sigma method and other process improvement initiatives. A typical Black Belt must have successfully completed a number of training courses and at least one major project. Some organizations have a process of official registration. It is a full-time position.
- Business Intelligence (BI)** a broad category of applications and technologies for gathering, storing, and analyzing, retrieving, and providing access to data to help users make better organization decisions. BI applications include the activities of decision support systems, querying and reporting, online analytical processing, statistical analysis, forecasting, and data mining. Analytics has generalized and extended BI.
- Business Model Canvas** a strategic management and entrepreneurial tool. It allows for describing, designing, challenging, inventing, and pivoting a business model.
- Business Process Management (BPM)** the management of processes in order to improve them substantially.
- Business Process Outsourcing or Business Process Optimization (BPO)** the outsourcing of business processes in order to optimize them.
- Business Process Re-engineering** the re-engineering of business processes in order to improve them drastically.
- Business to Business (B2B)** refers to organizations that relate to other organizations, rather than to customers.
- Business-to-Consumer (B2C)** indicates the solutions from an organization to the consumer.
- Buy-Back Agreement or Guarantee** an agreement between a purchaser and a seller in which the seller agrees to repurchase goods or property from the purchaser if a certain event occurs within a specified period. The buy-back price is usu-

ally set out in the agreement. It is specifically used in the context of distributor finance, a term defined herein.

- Buyer** in the context of supply chain finance, a buyer is a corporate entity procuring goods and services, issuing orders, and making payments to the vendors, which form its supply chain.
- Change Agents** figures considered benchmarks within the project team. They have the task of introducing, motivating and supporting change within the organization. Their two essential tasks are to identify priorities that characterize the different areas, giving reasons for the choices made and organizing the necessary technical support, and to speed up the implementation of agile procurement, in order to avoid unnecessary extensions in the use of resources.
- Cloud** a metaphor for a global network or synthetic for cloud computing. Initially, it referred to the telephone network. It now refers to the Internet.
- Cloud Computing** a computing capability that provides convenient and on-demand network access to a shared pool of configurable computing resources. These resources can be rapidly provisioned and released with minimal management effort or vendor interaction. Cloud computing has six essential characteristics: pay-per-use, self-service, broad network access, resource pooling, rapid elasticity, and measured service. In general terms, cloud computing enables three possible modes: infrastructure as a service (IaaS), platform as a service (PaaS), software as a service (SaaS), and business process as a service (BPaaS). It can be public, private, or hybrid.
- Committee Agile and Digitize** See Steering Committee.
- Commodity** a raw material, for instance, foodstuffs, metal ore or refined product, crude oil or oil product, for which there are normally liquid markets and which represent attractive collateral for the provision of finance.
- Common Causes** system features which may depend on the material, the staff, or the design. They are constant and predictable. To eliminate them it is necessary to change the system itself.
- Companion Application** an application associated with a payment application to increase functionality (for example, personal code management or transaction logs). The installer of the payment application decides to provide the companion application.
- Compliance** the respect for the internal and external compulsory rules of the organization.
- Consensus Mechanism** a mechanism that allows computers to agree regularly on how to update the database, after which the modifications they have settled on are rendered unchangeable with the help of complex cryptography.

- Consent** the strategy of making a decision based on conviction and approval by all the members, who undertake to support the decision.
- Consumption-based Pricing Model** a pricing model in which the vendor charges its customers based on the number of services the customer consumes, rather than on a time and material-based fee. For example, a cloud storage vendor might charge per gigabyte of information stored.
- Control** the last phase of DMAIC in which solutions, once implemented, present characteristics which make improvements sustainable.
- Corporate Performance Management (CPM)** the information system for the management of key business metrics.
- Country Risk** a collection of risks associated with investing in or creating exposure to a particular country. These risks include political risk, exchange rate risk, economic risk, sovereign risk, and transfer risk, which is the risk of funds being frozen for external transfer by government action. Country risk varies from one country to another.
- Credit Rating** an evaluation of the creditworthiness of a debtor, a business, or a government, but not individual customers. The evaluation is made by a credit rating agency of the debtor's ability to pay back the debt (both short term and long term) and the likelihood of default. A rating is usually reflected in a grading range such as AAA to B.
- Credit Risk** the risk that a borrower or obligor might default on any type of debt or contractual obligation by failing to make required payments
- Crisis** a situation formally declared a service interruption, or the deterioration of one or more critical or systemically important processes because of incidents or disasters.
- Critical Path Method (CPM)** a tool for planning and control of projects through a network method.
- Critical to Customer (CTC)** a critical feature for the customer, determined through the Voice of the Customer. It can have a direct impact on the customer's delight.
- Critical to Quality (CTQ)** a critical aspect of the quality. It is an element of a process that impacts directly on the quality perceived by the customer; the attributes of a product that the customer considers more important are the starting point for process improvement. These are quality parameters that mainly affect the realization of the product organization.
- Crowdfunding** the practice of funding a project or venture by raising money from a large number of people. This takes place most often via online platforms. It can also happen through mail-order subscriptions, benefit events, and other methods. Equity crowdfunding is the process whereby people (the

“crowd”) invest in an early-stage unlisted organization or initiative in exchange for shares in that organization. A shareholder has partial ownership of an organization and stands to profit should the organization do well. The opposite is also true, so if the organization fails investors can lose some, or all, of their investment. Seedrs is an example of an equity-based crowdfunding platform in the UK.³ Debt-based crowdfunding is when people lend to an organization. The lenders earn a rate of return based on the interest charged on the loan. Typically, loans are secured against an asset, which provides the investors with some protections should the borrower fail to repay. Donation-based crowdfunding is when people donate money to a project. In return, backers may receive token rewards that increase in prestige as the size of the donation increases; for small sums, the funder may receive nothing at all. There are two types of crowdfunding: rewards-based crowdfunding and equity-based crowdfunding. The first relates to platforms like Kickstarter or Indiegogo, where start-ups raise pledges and in return offer buy-in incentives for anything they produce. Equity crowdfunding is a more recent phenomenon where pledgers are actually investors that receive a small share in the business in return for their contributions.

Customer the person who pays for the product, service, or activity. This is not necessarily the user of the product, service, or activity. It can be external or internal to the organization. In the latter case, unless there is a system of interior “prices,” the internal customer does not pay for the product, the service, or the activity but uses it. Customers should be seen as the reason for the existence of the process and not just because of the process of the receptors. In this book, it refers to the customer. It could be either external or internal to the organization. In some cases, the word “customer” indicates the access device. In this latter meaning, there is always in this book a specification (such as a thin customer). Legally it is the contracting authority of the contract.

Customer Relationship Management (CRM) the information system to manage relationships with customers. It is a tool that can manage the life cycle of the customer, the acquisition of new customers, increased customer relationships, and the customer loyalty based on the relationships with the organization. It lowers transaction costs between customers and the organization and integrates the processes of customer management.

Customer Value Proposition the benefits a product or service holds for a customer; the reasons why a customer might buy that product or service.

Cycle Time this term can be used in different situations. The cycle time suggests the time it takes for a product/service to go from its beginning stage to delivery. In the case of a manufacturing organization, in production the cycle time is the time that elapses between the arrival of the raw materials and payment for the finished product. If the cycle time instead is evaluated from the point of view of the end customer, it can be defined as the total time the customer must wait to receive a product/service after having ordered it.

Data Collection the process of collecting data to generate information that can be used to make decisions. In the case of manual data collection, they are used the so-called check sheets are used to collect information and provide for their initial classification.

Data Governance and Compliance defines who is responsible for what, and the policies and procedures that persons or groups need to follow. Data governance requires governing the organization's own infrastructure and the infrastructure that the organization does not totally control. Data governance has two key components: understanding compliance and risk, and organization performance goals.

Data Source a database of personal information used by identity verification/identity proofing services to validate an identity. Examples of data sources include credit bureau records, government records, property files, customer marketing data, and telephone/utility records.

Database or Data Set a collection of data, usually from a common source and assembled for a particular business or another purpose. The term is used generally to define data that could historically have been brought together in a document, but in an automated process is transmitted as a data set. Under the rules of the BPO, data sets must be matched prior to a payment obligation becoming due.

Defect lack of fulfillment of customer expectations by a process or service.

Defects to Million Opportunities (DPMO) where opportunity means a chance of non-compliance and failure in the output of the process with a few specifics unmet. By this calculation, one can make quick assessments of the dispersion and process variability.

Define the first phase of DMAIC in which problems, opportunities, and customer needs are defined by the working group.

Define, Discover, Develop, and Demonstrate (DDDD) a structured method for innovation.

Define, Measure, Analyze, Develop, and Verify (DMADV) the Six Sigma Method for drastic improvement of processes.

- Define, Measure, Analyze, Improve, and Control (DMAIC)** the Six Sigma method for continuous process improvement. This structured process eliminates unproductive steps, focusing on new measurements and applying solutions for improvement.
- Disruptive Innovation** an innovation that completely changes the way people do something (for example, Amazon vs. in-store shopping). It describes innovations that improve products or services in unexpected ways and change both the way things are done and the market. The smartphone is an example of a disruptive solution. It has the potential to change completely the way in which users connect to ICT services.
- Distributor** a person or entity that supplies goods on a wholesale basis to retail outlets or organizations. It may be a manufacturing entity, an arm of a manufacturing entity, or an independent entity.
- Distributor Finance** an SCF technique defined herein in which a finance provider provides financing for a distributor of a large manufacturer to cover the holding of goods for resale and to bridge the liquidity gap until the receipt of funds from receivables following the sale of goods to a retailer or end customer.
- Documentary Trade Finance** a term that covers a large element of the traditional trade finance market relating to tools such as Documentary Credits, Documentary Collections and Guarantees, which are usually governed by rules published by the International Chamber of Commerce (ICC) (for example, UCP 60 for Letters of Credit (or later version) or URC 522 for Collections or URDG 758 for Guarantees). Although not SCF techniques in their own right, these tools can be incorporated into SCF transactions or used alongside SCF techniques.
- Dynamic Discounting** describes a number of methods through which early payment discounts on invoices awaiting payment are offered to sellers and funded by the buyer. The service is dynamic in the sense that the earlier the payment, the higher the discount.
- Ecosystem Participants** a set of organizations or individuals that can work together in order to gain synergies.
- Electronic Data Interchange (EDI)** the computer-to-computer exchange of business documents in a standard electronic format between business partners.
- Electronic Invoicing or e-Invoicing** the exchange of the invoice document between a seller and a buyer wholly in an integrated electronic format or data set. Traditionally, invoicing, like any heavily paper-based process, is manually intensive and is prone to human error, resulting in increased costs and processing life cycles for organizations.

Enterprise Content Management (ECM) the management of all content (data, unstructured documents, email, voice, video, and so on).

Enterprise Resource Planning (ERP) the extension of the Manufacturing Resource Planning II to the remaining functions in the organization, such as engineering, finance, and personnel administration and management. It consists of a software package with a single data model that facilitates the horizontal and vertical integration of all inter-organizational processes, improves process efficiency, and monitors processes through special key performance indicators (KPIs) according to quality, economic values, service levels, and timeliness. Some components of an ERP are accounting, industrial accounting, payroll, sourcing, warehouse management, production, project control, sales, distribution, and facility maintenance.

E-procurement (Electronic Procurement) a tool for managing the cycle shop with the integration of vendors B2B (Business to Business). It integrates the procurement process, reduces transaction costs for buyers, and simplifies workflows for sellers with access to the market. E-procurement indicates the set of technologies, processes, operations, and organizational procedures for the acquisition of goods and services online through the opportunities offered by the development of the Internet and electronic commerce.

Facilitator a person who helps a group achieve its full potential, through the identification and removal of barriers. He/she leads the group to achieve its mission.

Factoring an SCF technique defined herein as a form of receivables purchase, in which sellers of goods and services sell their receivables (represented by outstanding invoices) at a discount to a finance provider (commonly known as the “factor”). A key differentiator of factoring is that usually the finance provider becomes responsible for managing the debtor portfolio and collecting the payment of the underlying receivables.

Finance Provider a bank, financial institution, or other regulated or non-regulated provider of finance and related services, specifically herein in the context of value network finance

Financial Institution (FI) a provider of financial services in the broad sense, usually referring to banks and other regulated entities such as insurance companies, investment dealers, and trust companies. It includes, by definition, a range of non-bank financial institutions. These are the institutions that handle financial transactions and are normally the place where people deposit their money or get credit. It is a tradeable asset of any kind: either cash, evidence of an ownership interest in an entity, or a contractual right to receive or deliver cash

or another financial tool. In forfeiting, rights under the financial tool are normally independent of the underlying transaction that gave rise to the financial tool, since they rely on the legal obligations created by the legal status of the financial tool itself.

Financial Procurement the chain of financial processes, risk and liquidity management decisions, events, and activities that provide financial support to the physical value network.

Flow the progressive implementation of operations from the beginning of the process until the release of the result. According to one of the principles of Lean Thinking, the flow is such that it must proceed “forward,” that is, toward the customer (internal or external), and proceed without interruptions. It should be ensured that all activities create value “to flow” without interruption from beginning to end so that there are no waiting times, idling or waste during a step or between phases.

Flowchart a diagram or map of a process that uses symbols (for activities, decision points, and other events) in a horizontal sequence to show what actually happens in a process or in the design of a new process.

Geolocation the process or technique of identifying the geographical location of a person or device by means of digital information processed via the internet or GSM.

Global Systems for Mobile Communications (GSM) a standard for digital mobile phones. It is in use with 80% of the global mobile market.

Governance refers to the controls and processes that ensure the effectiveness, efficiency, and economics of a sector. The sector might refer to the entire organization or to an organizational unit, a process, or data.

Green Belt may be the facilitator in a group project. As a participant, a Green Belt helps the group to which it belongs implement methods of improvement in an effective manner so that they can improve the way in which the job is done. It is a part-time position.

Guarantee any signed undertaking, however named or described, provided for payment (by the guarantor) on presentation of a complying demand. Guarantees may also be subject to internationally recognized rules of practice issued by the ICC URDG 758. Guarantees, both financial and performance-related, issued by finance providers form an important category of traditional trade finance techniques. More generally, a guarantee is a promise to take responsibility for another party’s financial obligations, if that party cannot meet its obligations. The party assuming this responsibility is called the guarantor.

- Heijunka** a box in the leveling of production, used in the vicinity of pacemakers and other manufacturing cells. The Heijunka allows organizations to level production, balancing the workload of the cells and minimizing fluctuations in supply.
- Histogram** a graphical tool to show with bars the distribution of a variable. It is one of the seven tools of quality control.
- Human-to-Human (H2H)** a relationship from person to person.
- Human-to-System (H2S)** a relationship from person to system.
- Identity verification** the identification of individuals using their physiological and behavioral characteristics to establish a mapping, from a person's online identity to their real life identity.
- Improve** the fourth phase of DMAIC, in which ideas and solutions are generated and implemented.
- Improvement Team** See Project Team.
- Incident** any event that is not part of the standard operation of a service and that causes or may cause an interruption to, or a reduction in, the quality of that service.
- Information and Communication Technology (ICT)** the combination of computers, storage, network, applications, and so on that provides integrated computer-based services.
- In-Process Kanban** a kanban signaling of production of an article or a small amount (a maximum of a pitch), used where the flow is continuous.
- Input** a resource introduced into the system or consumed in its operation that helps in getting a result or output.
- Instant Messaging (IM)** a protocol for communicating between two parties using text-based chat through IP-based customers.
- Integration** the process of combining components or systems into an integrated entity.
- Interaction Design (IxD)** a customer-led design method for improving the interaction between customers and systems.
- Internet of Things** a development of the Internet in which non-human objects have network connectivity, allowing them to send and receive data. The IoT has the ability to record, receive, and send data. This covers internet-connected vehicles, devices, switches, sensors, and everything in between. It is based on using the Internet to communicate between objects, machines, and any other inanimate things.
- Internet Protocol (IP)** the primary protocol for transmitting data or information over the Internet.
- Interoperability** the ability of systems to operate in multiple environments.

- Interprocess Kanban** a kanban for handling/withdrawal. It is used to signal the need to move the items from supermarket and process upstream, inside the plant.
- Inventory Finance-borrowing Base** a variation of loans and advances against inventory defined herein, whereby the amount of finance is made available against a calculated market value of the goods (which could be of more than one type) being financed less a margin, which will vary according to the quantity or quality of the goods.
- Inventory Finance-Repo** a variation of inventory finance defined herein, whereby the finance provider enters into a sale and repurchase agreement for the goods being financed.
- Inventory Turnover** a ratio showing how many times an organization's inventory is used or sold and replaced over a period of time. The days in the period can then be divided by the inventory turnover formula to calculate the days it takes to sell the inventory on hand. It is calculated as consumption or sales divided by average inventory.
- Invoice** a document, or electronic version of a document, addressed by a vendor of goods and services to a buyer recording and describing a transaction for the supply of goods and services, requesting payment by a specified due date, and setting out any applicable taxes to be collected and remitted to a tax authority.
- iOS** the Apple mobile operating system for the iPhone, iPod touch, iPad, Apple television, and similar devices.
- Kaizen** the Japanese term to indicate continuous improvement. It is also used to indicate the seminars for suggesting and implementing improvements in a lean initiative.
- Kanban** a tool that allows for the flow of information and materials as part of a process. The concept is relatively simple. A production department must be activated to produce the quantities that are communicated by the next department downstream according to a card (precisely the Kanban in Japanese), which is delivered by the department downstream.
- Key Performance Indicators or Key Process Indicators (KPI)** the metrics (or measures) used within corporations to measure the performance of one department against another with respect to revenue, sales lead conversion, costs, customer support, and so on.
- Lead Time** the time taken by a piece (a part, the transaction of a product or a service) to move through a whole series of processes linked to a value network, from beginning to end. It also includes time not in process, such as queuing.

- Lean and Digitize** the method used to make processes lean and automated at the same time, wherever necessary. It aims to make the process automated and streamlined. The method presented in this volume, based on the first review of the process to make it lean and then in the automation where necessary.
- Lean Production** an organizational and management model that achieves a structure in which the main objective is the optimization of the production system, in terms of the speed of the process and eliminating waste. It involves the application of improvements and standardization, and many other concepts and tools to improve the quality, cost, or time of production. Many of the lessons learned in lean manufacturing can be applied to the operation of lean services.
- Lean Six Sigma (LSS)** a complete, flexible, and highly structured method aimed at achieving, maintaining, and increasing customer value.
- Loan** making money available to another party in exchange for future repayment of the principal amount plus interest or other finance charges. A loan may be for a specific, one-time amount or can be available as a variable credit line or overdraft up to a specified ceiling amount. It is also possible to make loans of actual real and financial assets.
- Management Process** a method to optimize the organization as a system, determining which processes need improvement and/or control, defining priorities, and providing leadership to initiate and support efforts to improve processes.
- Marketing** defined by the American Marketing Association (AMA) as the activity, set of institutions, and processes for creating, communicating, delivering, and exchanging offerings that have value for customers, partners, and society.⁴
- Material Requirements Planning (MRP)** a computer application that automatically provides the timing and amount related to purchases and production. The outputs of these packages are obtained by analyzing the input data (cycle times, BOM, inventory situation, political shuffle, and so on) from one or more databases.
- Measure** the second phase of DMAIC, in which the specific key measurements and the way to collect data are defined.
- Metrics** an index of the performance of an organization that wants to indicate whether or not a goal is reached.
- Mission** the way to proceed toward the vision.
- Mobile Device** includes smartphones, feature phones, and tablet computers. The term “mobile device” is also used interchangeably with “mobile handset” or “handset.”

- MRP II** a successor of manufacturing and materials resource planning (MRP). The MRP II with respect to the base MRP adds a scheduler module for the calculation of production capacity and the leveling of workloads.
- National Institute of Standards and Technology (NIST)** a US Department of Commerce agency that promotes the effective and secure use of cloud computing within organizations.
- Norms** an alternative to the word standardization.
- Order to Cash Cycle** represents the process steps and the time interval between receipt of an order, the manufacturing or fulfillment process, delivery, and the receipt of cash from the customer.
- Organization** in this book, a company, public institution (either central or local), department, or non-profit organization.
- Output** the result of product or system processes. It can be a product or a service. It is the result produced by a system or process. The final output is normally a product, a service, or an initiative.
- Outsourcing** defines an operation whereby an organization relies on an outside vendor for the management of a specific process or activity already operational within the organization (usually non-core assets such as the purchase of indirect materials, administrative management, and so forth). It is the acquisition from an external vendor of products or services that currently result from direct production activities and internal management organization.
- Pacemaker** the process that dictates the pace of operations upstream (following the Group technology).
- Pareto Principle** a principle arguing that the 20% that few “vital” elements justify the 80% of the consequences than many “trivial”. The economist Vilfredo Pareto introduced it. Joseph Juran popularized it.⁵
- Party** any entity that becomes engaged in a financial or commercial transaction, whether a natural or legal person such as a company, corporation, financial institution, unincorporated business, government organization, or not-for-profit entity.
- Payment** a means of settlement for a commercial or other obligation, such as an electronic credit transfer, direct debit, credit or debit card payment, wire transfer, automated clearinghouse payment (ACH), check, or cash. The payment is completed when the creditor receives the funds.
- Personal Productivity Software** software used for processing individual standards (for instance, WinZip, Adobe, MS Office, Google Apps, MS Project, and so on).
- Physical Procurement** a term used to describe the totality of the organizations, systems, people, activities, information, and resources involved in moving a product or service from vendor to buyer.

- Platform** a business processing capability embedded in an information technology system and its surrounding management.
- Poka-Yoke** a terms that means “fail safe.” It describes the design selections for devices, machines, or parts assembly that allow self-inspection even before the production process is in operation.
- Policy** a general term for an operating procedure.
- Problem** the cause of an incident. Incidents that cannot be resolved due to the lack of an available solution, as well as repeated incidents related to a known issue (“known problem/error”), pass through the process of problem management. A workaround could remediate the problem, before finding the root causes and resolving them.
- Process** a set of inter-related activities that transform a set of inputs on one or more results. Sometimes the process is identified with a system. It would be correct to regard it as a component of a system.
- Process Control** the act of getting and keeping a stable process. In fact, stability is not always a natural state for any process.
- Process Improvement** a continuous effort to learn the causes and effects in a process in order to reduce complexity and variations and reduce times. The process gets better by removing the incorrect causes. Through the redesign of a process, it is possible to reduce the variations in common causes.
- Process Management** a method used to optimize the organization as a system, determine which processes need to be improved and/or controlled, define priorities, and encourage leadership to initiate and sustain process improvement efforts. It manages the information obtained in these processes.
- Process of Continuous Improvement** a structured approach that improves the overall performance of the organization by using methods appropriate to its problems. Its scope may be the quality or social responsibility of the business. Continuous improvement is called Kaizen in Japanese.
- Process Owner** literally, the master of the process. This person has responsibility for the whole process and communicates the objectives of the process, optimizes its performance in the context of the whole system, and guides efforts to improve it. It is not a common organizational figure and must be closely coordinated with the heads of the departments involved in the process.
- Procure to Pay Cycle or Process (P2P)** represents the process steps and time interval between procurement, the issue of a purchase order, delivery of goods and services, receipt of invoice, and payment to the vendor.
- Procurement** in this book, it refers to the initiation, design, development, acquisition, and logistics of goods and services for the organization. Procurement

generalizes further management of the value network, also including strategic aspects and outside the organization.

Procurement Transaction sets out descriptions, quantities, prices, discounts, payment terms, date of performance or shipment, and other associated terms and conditions, and identifies a specific vendor. It is used to control the purchasing of products and services from external vendors. When accepted by the seller, it forms the basis of a contract binding on both parties. It is also called an order.

Program a set of projects with similar objectives. An example is the improvement of systems installed at different subsidiaries of the same group.

Program Evaluation and Review Technique (PERT) a tool for planning and control of projects based on a network of activities.

Project Charter a description of the problem, defining the objectives and planning of the main activities of the project. It is a document that sets out the model, specifications, and plans for an improvement project. It includes definitions, issues and objectives, constraints and assumptions, roles, and preliminary plan. Periodic reviews by the sponsor guarantee the alignment with business strategies.

Project Teams groups consisting of people from the same sector or, better, from different fields working for a certain period of time to improve the process.

Purchase Order a buyer-generated document or data set that authorizes a purchase.

Quality a concept not easily defined, because there are several variants, at times specified by an adjective or specification added to the name. In general, one can say that the quality is profitable customer satisfaction for the organization. There are many variations of the concept of quality, sometimes determined by an adjective or specifications. In general, quality is customer satisfaction in a way that is profitable for the organization.

Quality Assurance the set of planned and systematic actions necessary to provide adequate confidence that a product or service meets certain quality requirements.

Quality Function Deployment (QFD) refers to a set of disciplines, based on a deep understanding of the needs and desires of customers. It is used to accelerate the development of major projects and new products or services. It is based on many hierarchical matrices.

Receivable the amount due from a debtor or obligor to a creditor. This includes, but is more extensive than, trade-related account receivables. For instance, it covers the amount due under a negotiable tool.

- Reporting** consists of supplying and updating representative data and indicators whose degree of detail tends to vary depending on the person or organization for whom or for which they are intended. For the purposes of sustainable development, tools such as the GRI (Global Reporting Initiative) enable a standardized method to be agreed on at the international level. In a certain number of countries, there are laws that require that all organizations beyond a certain size publish a Corporate Social Responsibility or “sustainability” report.
- SaaS** an acronym for Software as a Service. It is one of the ways to use cloud computing, based on using the software as a service offered by a third party on their computers.
- Service Vendor** an organization such as a bank, a telecommunication organization, or a merchant that provides services to be integrated, for instance, with mobile payments.
- Sharing Economy** an economic model based on sharing, swapping, trading, or renting products and services, enabling access or use over ownership. It is reinventing not just what is consumed but how it is consumed. It is an economic model in which individuals are able to borrow or rent temporarily assets owned by someone else. The sharing economy model is becoming popular when the price of a particular asset is high and the asset is not fully utilized all the time.
- Short Message Service (SMS)** a system of communicating by short messages over a mobile telephone network. It can be rather secure if encrypted.
- Sigma (σ)** the eighteenth letter of the Greek alphabet. In statistical theory, it is connected with variance. It is a metric based on the number of defects that occur per million opportunities.
- Signal Kanban** a kanban signaling production of a batch of relatively large dimensions. It is used in conjunction with the supermarket to drive upstream processes and allow them to make the fitting, generally costly in terms of time.
- Single Minute Exchange of Die (SMED)** a tool used in the Toyota Production System.
- Six Sigma** a method and a performance goal. The method is a structured approach to continuous process improvement. The goal is a measure of the performance of a process defined as the number of defects per million opportunities. It is a philosophy and a performance objective. It is a structured method for the continuous improvement of processes. The objective is a measure of process performance defined in terms of defects, with 3.4 defective parts per million opportunities.

Software as a Service (SaaS) a software distribution model in which applications are hosted by a vendor or service vendor and made available to customers over a network, typically the Internet. Many fintech start-ups use this software distribution model. It refers to applications hosted by a vendor on the cloud. The users can access them online for a subscription fee, as opposed to users buying a software license outright in a hard format like a tape or a CD. SaaS is a common tool utilized by start-ups. A vendor sells the service of hosting applications on a cloud for users to access online.

Sponsor a person in the organization that sponsors the project, having the necessary authority and power. It is normally a member of the executive. Important to the success of the project.

Stable Process a process that is predictable since it is subject to change control-ability. It is also the property of being in statistical control.

Stakeholder an individual, group, or organization that is likely to be affected, directly or indirectly, by an activity, a program, or a particular arrangement of an organization. Stakeholders include all those groups that participate or are otherwise involved in its economic life (employees, customers, vendors, shareholders), those who observe the organization (unions, non-governmental organizations), and those that it affects either directly or indirectly (civil society, local authorities, and so on).

Standards indications of voluntary standardization.

Statistical Process Control (SPC) a method by which a process is studied and the variations reduced over time. The resulting data is analyzed to identify the causes of changes. People with knowledge of the process work to identify and reduce the recurrence of the unpredictable causes and understand and reduce foreseeable changes.

Steering Committee also referred to as the committee of agile procurement. It includes representatives of the executive, the project leader, and the facilitators who meet regularly. Its main responsibilities are management of the efforts of the improvement process, assessment of the needs and oversight of the support and training within its area of responsibility, communication of progress to all stakeholders, and direction of the efforts.

Streaming a situation in which a number of sequential processes are balanced, allowing the material or the information to flow continuously from one station to another without delays. It is an efficient way to produce repeatedly a specific product or service.

Supplier Input Process Output Customer (SIPOC) a page that synthesizes a view of the process, customers and vendors, measures, and performance. It presents an explanation of the possible sources of variation.

Supply Chain Finance (SCF) defined as the use of financing and risk mitigation practices and techniques to optimize the management of the working capital and liquidity invested in supply chain processes and transactions. SCF is typically applied to open account trade and is triggered by supply chain events. Visibility of underlying trade flows by the finance provider(s) is a necessary component of such financing arrangements, which can be enabled by a platform.

System defined by Deming as “A network of interacting components that cooperate to achieve the objectives of the system.”⁶ It is the organization which includes customers, vendors, and the flow of materials and information.

Tablet a general-purpose computer contained within a single panel, with a touchscreen as the input device.

Takt Time is the pace of production of products assigned to a cell.

Telematics denotes the synergy between telecommunications and informatics, indicated in this volume as ICT.

Throughput a metric of how quickly the service responds.

Time to Market in the process of development of new products, the time that elapses between the first phase of the concept of the new product and the launch on the market.

Total Cost Management (TCM) a business philosophy of managing the entire organization resources and the activities that consume those resources. Managing costs in a TCM approach means focusing on the activities and the events, the circumstances, or the conditions that cause or drive these cost-consuming activities.

Total Cost of Ownership (TCO) a metric that takes into account the costs throughout the life cycle of a solution. Typically, it includes procurement costs, installation, testing, maintenance, use, and disposal at the end of the useful life.

Total Quality Control (TQC) a method for total quality control.

Total Quality Management (TQM) a method for total quality management.

Toyota Production System (TPS) the production system introduced by Toyota, which later evolved into lean thinking.

Trade Finance a “super-category” or umbrella term used by finance providers to describe their business lines, organizational units, and activities. Trade finance is usually used as a generic term for a range of traditional trade finance techniques and evolving SCF techniques.

Transaction the action of executing a function or an application. An example of a transaction is the execution of the purchase at the point of sale and the processing of authorization and clearing messages.

- Trust** the ability for two parties to define a trust relationship with formal authentication of the two parties.
- UNI EN 28402** the ISO standards on quality—Terminology.
- UNI EN ISO 9000** the ISO standards concerning the conduct of an organization and the quality assurance (or guarantee) quality. Criteria for selection and use.
- UNI EN ISO 9001** the ISO standards on quality management systems. Criteria for insurance (or guarantee) of quality in the design, development, production, installation and service.
- UNI EN ISO 9002** the ISO standards on quality management systems. Criteria for insurance (or guarantee) in the implementation of quality and service.
- UNI EN ISO 9003** the ISO standards on quality management systems. Criteria for insurance (or guarantee) quality controls and final tests.
- UNI EN ISO 9004** the ISO criteria concerning the conduct of an organization for quality and quality management systems of the organization.
- Usability Testing (UT)** the method of testing how users interact with a system, product, or interface through observation.
- Validation** a method to provide specific personal information to prove ownership of the identity for the purpose of identity verification.
- Value** defined by the end user. Conceptually, it is the relationship between benefits and cost/damage of a product or service, expressed in terms of a product/service able to meet his/her needs at a given price and at a given time. It is also possible to talk about the value perceived by the customer as all the features of the product/service that the customer deems necessary and valuable. Any activity that consumes resources (including time) and does not create value is a waste (*Muda* in Japanese).
- Value Analysis** a technical organization that allows for alternatives and solutions to enhance customer value.
- Value Engineering** value analysis applied to the design.
- Value Network** a set of activities required to design, order, manufacture, and supply (or provide in the case of a service) a given product. These activities cover the entire path of the product/service from organization to end customer. Objective analysis of the value network is to classify tasks into categories. The supply chain can be seen as the sequence of activities that brings value to the customer (and indirectly to the organization).
- Value Network Mapping** the identification and subsequent graphical representation of all the activities that are performed in the value network for a product/service or a family of products/services.

- Variance** in statistics, the average of the squared deviations. It is a dispersion index.
- Variations** changes in the quantity or time value between cases caused by acts and not predictable.
- Vendor** a person or organization that provides goods or services for use by the process that is designed.
- Vendor Kanban** a Kanban handling/withdrawal. It is used for the handling of the material from the outside of the site/s of the organization in accordance with the management vendors. Indicates the cycle of the Kanban, in other words, the type of product to be supplied, the quantity and frequency of delivery.
- Vendor Managed Inventory (VMI)** a family of business models in which the buyer of a product (business) provides certain information to a (supply chain) vendor of that product and the vendor takes full responsibility for maintaining an agreed inventory of the material, usually at the buyer's consumption location (such as a store). It is analogous to the holding of consignment stock.
- Vision** the expression of what would represent success for the organization. The goal is to produce a mental image to strive for in order to make sure the organization produces creative tensions between the current reality and the vision. For the value to be shared by the entire organization requires a lot of time. Mission is the manner in which the organization must make progress towards the vision. It is an expression of what would represent a success for the organization. The Vision's objective is to produce a mental image for generating creative tensions between the current reality and the future of the organization. In order to be valuable, the whole organization should know and accept it. This requires many efforts and much patience. The mission is the way to proceed toward the vision.
- Voice of the Customer (VoC)** the customer's voice, or the voice of the citizen in the case of public organizations.
- Web 2.0** includes the Web applications that facilitate interactive information sharing, inter-operability, user-centered design, and collaboration on the World Wide Web.
- Working Capital** the financial resources invested by a business in financing its current trading operations, usually expressed as the difference between current assets (receivables, inventory, and operating cash balances) and current liabilities (payables and short-term debt).
- Yellow Belt** a figure that participates in a project by joining and supporting the Working Group. It is a part-time position.

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