Glossary

Account Payable a legally enforceable liability to a creditor recorded on the balance sheet, usually arising from purchases of goods and services on an open account basis and evidenced by a received invoice due to be paid within an agreed time frame.

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.

Agile Committee See Steering Committee.

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

B. Nicoletti, *Agile Procurement*,
DOI 10.1007/978-3-319-61085-6

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.

Anti-Money Laundering (AML) Anti-money laundering regulations are a set of procedures, laws, and regulations designed to stop the practice of generating income through illegal actions. In most cases, money launderers hide their actions through a series of steps that make it look like money coming from illegal or unethical sources was earned legitimately.

App short for application. It is 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 Interface (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.

Application/App store a virtual location for the distribution of digital applications, available on mobile devices.

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

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, 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.

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.

Basel 2 and 3 the second and third Basel accords were signed in 2004 by the G10 central bank governors (Basel 1 was signed in 1998). Basel 2 is a package of measures designed to introduce new rules for prudent credit risk management.

Financial institutions are required to put aside equity capital to reduce the risks of their lending and investment activities, thereby bringing greater transparency and reliability to financial institutions' solvency. In 2010, the central bank governors introduced further proposals for international banking regulation in the Basel 3 reforms.

Belt the "belts" are the members of the working team 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.

Biometrics the process to detect and possibly record a person's unique physical and other traits with an electronic device or system as a way of confirming identity.

Bitcoin a token of value exchanged between two parties.

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. In some organizations, there is a process of official registration. It is a full-time position.

Block a recording of transactions validated by a set of cryptographic keys. Once completed, it goes into the blockchain as a permanent database. A block makes transactions recordable and trackable, representing the source of truth for the contained transactions.

Blockchain a distributed database where trust is established through mass collaboration. Each transaction is recorded continuously and sequentially on a public "block," creating a unique ongoing "chain." The blockchain is the technology used by Bitcoin transactions.[3] It can record cryptocurrency transactions. It operates like a distributed public ledger where information, once entered, cannot be altered. Blockchain technology has several potential non-cryptocurrency uses, including smart contracts and the recording of digital assets. It can record data—a digital ledger of transactions, agreements, contracts—anything that needs to be independently recorded and verified as having happened. The blockchain technology runs across several, hundreds, or even thousands of computers. Every time a new batch of transactions is encrypted, it is added to the ledger "chain" as a "block." Its appeal stretches beyond fintech into government and other fields. The simplest definition is that the blockchain solution is a decentralized digital ledger. It records all digital transactions as a string of data stored on a global network of computers. Every time the network encrypts a new batch of transactions, it is added to the string (or chain) as a "block."

Blockchain as a Service (BaaS) a relatively new term for 2016, coined by William Mougayar of Virtual Capital Ventures in early 2015.[4] Equivalent terms include Ethereum blockchain-as-a-Service (EthBaaS), or "blockchain-as-a-Platform" (BaaP). It refers to the growing landscape of services based on blockchain solutions available in cloud computing. One example is Microsoft EthBaaS on the Microsoft Azure cloud platform. This platform allows organizations to begin working with blockchain solutions without having to make significant investments in hardware.

Broad Network Access facilitates network capabilities and their access through standard mechanisms. Heterogeneous thin or thick customer platforms promote the use of the platform. Notebooks, tablet PCs, PDAs, smartphones, and so on are among the devices that can access the network.

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 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 usually 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.

Buyer Credit a form of financing that is put in place by a buyer to purchase goods or services, or provided for its benefit by a third party such as an Export Credit Agency (ECA). Contrast with a vendor credit. Buyer credits may be incorporated into supply chain finance (SCF) transactions.

Buyer-centric a description of an SCF transaction where the origination usually takes place through a relationship with a buyer, sometimes referred to as the anchor party.

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.

Collaboration Risk the risks arising from the legal structure of a joint venture, for example, while the finances of each partner in a joint venture may be robust, the joint venture vehicle itself may be poorly capitalized and carry a real risk of insolvency.

Commercial Finance a "super-category" or umbrella term used by finance providers to describe their business lines, organizational units, and activities. Commercial finance is usually used as a generic term for a range of asset-based finance services.

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.

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.

Control the last phase of DMAIC in which solutions, once implemented, are verified in performance to determine the sustainability of the improvements.

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 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 approach.

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. Seedrs is an example of an equity-based crowdfunding platform in the UK.[5] 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.

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 in terms of 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 called check-sheets to be 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.

Data Set or Database 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.

Design for Six Sigma (DFSS) another name of DMADV when applied to the design function.

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.

Encryption the process of encoding messages or coding to protect the customer's information assets. Encryption is vital to fintech, the blockchain, and anything else that needs to be secure. Documents or data, like names and numbers, are turned into a code using algorithms (mathematical formulas). A key is required to turn that code back into useful data (decryption).

End User the end or final user of an application.

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.

Electronic Procurement or e-Procurement E-procurement indicates the set of technologies, processes, operations, and organizational procedures for the acquisition of goods and services online thanks the Internet and electronic commerce.

Extended Enterprise Resource Planning (EERP) an evolution of ERP that adds tools for the control of connected partners (subsidiaries, sales channels, customers, vendors, and so on).

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 financial institution, or other regulated or non-regulated provider of finance and related services, specifically herein in the context of procurement 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.

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.

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.

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.

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.

Input a resource introduced into the system or consumed in its operation that helps in getting a result or output.

Integration the process of combining components or systems into an integrated entity.

Internet of Things (IoT) 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.

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.

Kaizen the Japanese term to indicate continuous improvement. It is also used to indicate the seminars for improvement 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 (KPIs) 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.

Know Your Customer (KYC) the process of an organization verifying the identity and the standing of its customers and the character of the business or transactions they generate. The term is also used to refer to the legal regulations that govern these activities.

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 lean processes and automate them at the same time, wherever necessary. It aims to make the process automated and streamlined.

Lean Manufacturing See Lean Production.

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.

Logical Security a set of processes and activities aimed at obtaining confidentiality, integrity, and availability of data and information through the adoption of measures—technical (systems for access control, antivirus, firewalls, intrusion detection systems, and so on), organizational (definition of policies, safety standards, user profiling and related ratings, and so on), and procedural (process definition).

Management Process a method to optimize the organization as a system, determining what processes need improvement and/or control, defining priorities, and providing leadership to initiate and support efforts to improve processes.

Manufacturing 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 time, bill of materials (BOM), inventory situation, political shuffle, and so on) from one or more databases.

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.

Matrix Activities/Responsibilities Matrix is used in projects to assign different responsibilities to project participants. It is also called RACI Matrix, where RACI stands for responsibility, accounting, control, information, which are the potential actions of the different parties.

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 indicates whether a goal is reached.

Milestone a relevant date in the life of the project.

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 material 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.

Node in this book, an element of the blockchain solution that receives/sends transactions.

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.

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.

Pareto Principle a principle arguing that few "vital" elements (20%) justify the 80% of the consequences. The economist Vilfredo Pareto introduced it. Joseph Juran popularized it.[6]

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 Value Network a term used to describe the totality of 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 and communication system and its surrounding management.

Policy a general term for an operating procedure.

Portability the ability to run applications, components, or systems on one implementation and to deploy them on another, for instance that of another vendor.

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 Improvement a continuous effort to learn the causes and effects in a process in order to reduce the complexity and the variations, and reduce the time required. The process is improved by removing the incorrect causes. Through the redesign of the 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.

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 refers to the initiation, design, development, acquisition, logistics of goods and services for the organization. Procurement generalizes further management of the supply chain, including strategic aspects and those outside the organization.

Procurement Finance this term generalizes the supply chain finance, including all financial aspects of the entire procurement process.

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.

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.

Quality Checks tools and operational activities undertaken to meet the quality requirements.

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.

Relationship Manager (RM) a dedicated customer service manager assigned to look after specific customers, usually high-net-worth customers.

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.

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. By using technologies such as Near Field Communication (NFC).

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.

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.

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.

Smart Contracts a computer program that automatically executes a contract or part of it. These are automated and often blockchain-based contracts. They could save time and reduce costs in common transactions. Smart contracts are computer protocols that facilitate, verify, or enforce a digital contract. The idea is that these programs potentially replace notaries, lawyers, and financial institutions when handling common legal and financial transactions. Technically, it is a piece of code which is stored on a blockchain, triggered by blockchain transactions, and which reads and writes data in that blockchain database.

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. The users can access them online for a subscription fee, as opposed to users buying a software license outright.

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.

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.

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.

Straight-Through Processing (STP) the implementation of a system that requires no human intervention for the approval or processing of a customer application or transaction.

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."[7]

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

Takt Time 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.

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.

Validation a method to provide specific personal information to prove ownership of the identity for the purpose of identity verification.

Value 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.

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 it is a Kanban for 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.

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. Mission is the manner in which the organization must make progress towards 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, interoperability, 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).

Bibliography

Abdi, F., Shavarini, S., & Hoseini, S. (2006). Glean Lean: How to Use Lean Approach in Services Industries? *Journal Service Research, 6*, 191–206. Special issue.

About, Y., Hsu, T., & Yang, W. (2005). Building Ontological Knowledge Bases for Sharing Knowledge in Digital Archive. *Proceedings of the 2005 International Conference on Machine Learning, Cybernetics*.

Achanga, P., Shehab, E., Roy, R., & Nelder, G. (2006). Critical Success Factors for Lean Implementation Within SMEs. *Journal of Manufacturing Technology Management, 17*(4), 460–471.

Ackermann, T., Widjaja, T., Benlian, A., & Buxmann, P. (2012). Perceived IT Security Risks of Cloud Computing: Conceptualization and Scale Development. Retrieved April 20, 2017, from http://aisel.aisnet.org/icis2012/proceedings/ISSecurity/3/

Adolph, S., Tisch, M., & Metternich, J. (2014). Challenges and Approaches to Competency Development for Future Production. *Journal of International Scientific Publications—Educational Alternatives, 12*(8), 1001–1010.

Aggogeri, F., & Dear, E. (2006). *Lean Six Sigma: la nuova frontiera per la qualita*. Milano, Italy: FrancoAngeli.

Aghamanoukjan, A., Buber, R., & Meyer, M. (2009). Qualitative Interviews. In R. Buber & H. Holzmüller (Eds.), *Qualitative Marktforschung. Konzepte—Methoden—Analysen* (2nd ed., pp. 415–436). Wiesbaden: Gabler.

B. Nicoletti, *Agile Procurement*,
DOI 10.1007/978-3-319-61085-6

Albano, G., & Sparro, M. (2008). A Simple Model of Model Agreements: Competition and Efficiency. *Journal of Public Procurement, 8*, 356–378.

Albrecht, C., Dean, D., & Hansen, J. (2005). Marketplace, Technology Standards for B2B e-commerce: Progress, Challenges, the State of the Art. *Information, Management, 42*(6), 865–875.

Alvarez, J. M., Labra, J. E., Cifuentes, F., Alor-Hernández, G., Sánchez, C., & Luna, J. A. G. (2012). Towards a Pan-European E-Procurement Platform to Aggregate, Publish and Search Public Procurement Notices Powered by Linked Open Data: The MOLDEAS Approach. *International Journal of Software Engineering and Knowledge Engineering, 22*(3), 365–383.

Anonymous. (2001). The Manifesto for Agile Software Development. Retrieved March 25, 2007, from http://agilemanifesto.org/

Anonymous. (2008). Third-Party Logistics, *OTM-SIG*, *2008*, 50.

Arjan, J., & Weele, V. (2010). *Purchasing and Supply Chain Management. Analysis, Strategy, Planning and Practice* (5th ed.). Stamford, CT: Cengage Learning.

Arksey, H., & O'Malley, L. (2005). Scoping Studies: Towards a Methodological Model. *International Journal of Social Research Method, 8*(1), 19–32.

Arthur, J. (2006). *Lean Six Sigma Demystified*. New York: McGraw-Hill.

Aslanbas, M. (2014). Emporias Survey Agile procurement: Significance and Future Challenges for the Logistical Integration of Vendors. In Emporias Management Consulting (Ed.), *Quarterly 3/2014* (pp. 10–14). Munich, Germany: Emporias.

Atkinson, W. (2007). MeadWestvaco Leverages Market Intelligence for Procurement. *Purchasing, 136*(11), 18–19.

Atzori, M. (2015). Tecnologia blockchain e governance decentralizzata: lo Stato è ancora necessario? Available at SSRN.

Ayers, J. B. (2000). *Handbook of Supply Chain Management*. Boca Raton, FL: CRC Press.

Bales, F. (2005). *The Goldmine—A Novel of Lean Turnaround*. Cambridge, MA: Lean Enterprise Institute.

Ballou, R. H., Gilbert, S. M., & Mukherjee, A. (2000). New Managerial Challenges from Supply Chain Opportunities. *Industrial Marketing Management, 29*, 7–18.

Bank for International Settlements. (2012). *BIS Communications, Basel III: A Global Regulatory Model for more Resilient Banks and Banking Systems*. Basel, Switzerland: Bank for International Settlements.

Barnhart, T. M. (2012). *Creating a Lean R and D System*. New York: Productivity Press.

Bartezzaghi, E., & Ronchi, S. (2002). The Role of the Internet in Customer-Vendor Relationships: The Integration-Efforts Ratio, the Emergence of Collaborative Markets. In *Proceedings of the 9th International Conference of EUROMA: Operations Management, the New Economy*, June 2–4, Copenhagen, Denmark.

Bartezzaghi, E., & Ronchi, S. (2003). Internet Supporting the Sourcing Process: Lessons from Four Case Studies. *Integrated Manufacturing Systems, 14*(8), 632–641.

Bartezzaghi, E., & Ronchi, S. (2004). A Portfolio Approach in the E-Purchasing of Materials. *European Journal of Purchasing, Supply Management, 10*, 117–126.

Bartezzaghi, E., & Ronchi, S. (2005). E-Sourcing in a Buyer-Seller-Operator Perspective: Benefits, Criticalities. *Production Planning, Control, 16*(4), 405–412.

Baškarada, S., & Koronios, A. (2014). A Critical Success Factors Model for Information Quality Management. *Information Systems Management, 31*(4), 1–20.

Basu, R. (2008). *Implementing Six Sigma, Lean: A Practical Guide to Tools, Techniques*. Oxford: Butterworth-Heinemann.

Bates, J. (2012). This Is What Modern Deregulation Looks Like: Co-Optation and Contestation in the Shaping of the UK's Open Government Data Initiative. *The Journal of Community Informatics, 8*(2). Retrieved August 13, 2017, from http://cijournal.net/index.php/ciej/article/view/845/916

Baudin, M. (2005). *Lean Logistics : The Nuts and Bolts of Delivering Materials and Goods*. New York: Productivity Press.

Beaumont, N. (2009). Guest editorial. *Journal Management Manufacturing. Technology, 20*(6), 787.

Berger, R. (2011). *Purchasing-Excellence-Studie*. Munich, Germany: Roland Berger.

Berman, B. (2012). 3-D Printing: The New Industrial Revolution. *Business Horizons, 55*(2), 155–162.

BERR. (2008). *Supporting Innovation in Services*. London: Department for Business, Enterprise and Regulatory Reform.

Bizer, C., Heath, T., Ayers, D., & Raimond, Y. (2007). Interlinking Open Data on the Web in The 4th European Semantic Web Conference.

Blomqvist, E., & Thollander, P. (2015). An Integrated Dataset of Energy Efficiency Measures Published as Linked Open Data. *Energy Efficiency, 8*(6), 1125–1147.

BMBF (Bundesministerium für Bildung und Forschung). (2015). *Zukunftsprojekt Industrie 4.0*. Retrieved August 12, 2016, from http://www.bmbf.de/de/9072.php

Bogaschewsky, R. (2015). State of the Art und Trends in e-Procurement. *Proc. 6th BME e-Lösungstage*, 24 March, Düsseldorf, Germany. Retrieved March 25, 2017, from http://www.cfsm.de/fileadmin/Downloads/E-Procurement/e_ltage_2015.pdf

Boiko, B. (2002). *Content Management Bible*. Canoga Park, CA: Hungry Minds.

Bolstorff, P., & Rosenbaum, R. G. (2007). *Supply Chain Excellence: A Handbook for Dramatic Improvement Using the SCOR Model*. New York: Amacom.

Booth, C. (2010). *Strategic Procurement*. London: Kogan Page.

Borders, A. L., Johnston, W. J., & Rigdon, E. E. (2001). Beyond the Dyad: Electronic Commerce and Network Perspectives in Industrial Marketing Management. *Industrial Marketing Management, 30*(2), 199–205.

Borhanazad, A., & Tran, M. (2012). *Improved Sourcing Flexibility Through Strategic Procurement*. Stockholm: KTH Industrial Engineering and Management Industrial Management.

Bortolotti, T., Romano, P., & Nicoletti, B. (2010). Lean First, Then Automate: An Integrated Model for Process Improvement in Pure Service-Providing Companies. In *Advances in Production Management Systems 2010 (Best Paper Award)* (pp. 579–586). Berlin: Springer.

Brenner, W., & Wenger, R. (Eds.). (2007). *Elektronische Beschaffung: Stand und Entwicklungstendenzen*. Berlin: Springer.

Brettel, M., Friederichsen, N., Keller, M., & Rosenberg, M. (2014). How Virtualization, Decentralization and Network Building Change the Manufacturing Landscape: An Industry 4.0 Perspective. *International Journal of Science, Engineering and Technology, 8*(1), 37–44.

Bruce, M., Daly, L., & Towers, N. (2004). Lean or Agile: A Solution for Supply Chain Management in the Textiles and Clothing Industry? *International Journal of Operations & Production Management, 24*, 151–170.

Brynjolfsson, E., & Smith, J. (2000). Frictionless Commerce? A Comparison of the Internet, Conventional Retailers. *Management Science, 46*(4), 563–585.

Carr, N. G. (2000). Hypermediation: Commerce as Clickstream. *Harvard Business Review, 78*(1), 46–47.

Chaffey, D. (2009). *E-Business and E-Commerce Management: Strategy, Implementation and Practice*. Upper Saddle River, NJ: Prentice Hall, Pearson Education.

Chesebro, R. (2015). *A Contract That Manages Itself: The Time Has Arrived*. Fort Belvoir, VA: Defense Acquisition University.

Chiarini, A., et al. (2006). *Revolution Lean. Trade Business, 5*, 34–41.

Chopra, S., Dougan, D., & Taylor, G. (2001, May–June). B2B E-Commerce Opportunities. *Supply Chain Management Review*, 50–58.

Chopra, S., & Meindl, P. (2012). *Supply Chain Management Strategy, Planning, Operation* (5th ed.). London: Prentice Hall.

Christensen, C. (2013). *The Innovator's Dilemma: When New Technologies Cause Great Firms to Fail*. Cambridge, MA: Harvard Business Review Press.

Christopher, M., Lowson, R., & Peck, H. (2004). Creating Agile Supply Chains in the Fashion Industry. *International Journal of Retail & Distribution Management, 32*, 367–376.

Čiarnienė, R., & Vienažindienė, M. (2012). Lean Manufacturing: Theory And Practice. *Economics and management, 17*, 726–732.

Cimorelli, S. (2004). *Kanban for the Supply Chain: Fundamental Practices for Manufacturing Management* (Vol. 1., p. 244). New York: Productivity Press.

Clarke, I., & Flaherty, T. (2003). Web-Based B2B portals. *Industrial Marketing Management, 32*(1), 15–23.

Cohen, S., & Roussel, J. (2004). *Strategic Supply Chain Management*. New York: McGraw-Hill.

Cole, R. J. (2012). Some Observations on the Practice of "Open Data" as Opposed to its Promise. *The Journal of Community Informatics, 8*(2). Retrieved August 13, 2017, from http://cijournal.net/index.php/ciej/article/view/920/917

Conboy, K., & Fitzgerald, B. (2004). Toward a Conceptual Model of Agile Methods: A Study of Agility in Different Disciplines. *Proceedings of the 2004 ACM Workshop on Interdisciplinary Software Engineering Research*, 37–44, Newport Beach, CA.

Connaughton, P., & Sawchuk, C. (2014). *Procurement Analytics in the Era of Big Data: What CPOs Need to Know*. Miami, FL: The Hackett Group White Paper.

Corbin, J., & Strauss, A. C. (2015). *Basics of Qualitative Research: Grounded Theory Procedures and Techniques* (4th ed.). Newbury Park, CA: Sage Publication.

Cousins, P., Lamming, R., Lawson, B., & Squire, B. (2008). *Strategic Supply Management-Principles. Theories and Practice*. Upper Saddle River, NJ: Prentice Hall Harlow.

Cox, A. (2004). The Art of the Possible: Relationship Management in Power Regimes and Supply Chains. *Supply Chain Management: An International Journal, 9*(5), 346–356.

Croom, S. R. (2000). The Impact of Web-Based Procurement on the Management of Operating Resources Supply. *The Journal of Supply Chain Management, 36*(4), 4–13.

Davenport, T. H., & Beck, C. J. (2001). *The Attention Economy: Understanding the New Currency of Business*. Boston, MA: Harvard Business School Press.

Davenport, T. H., & Patil, D. J. (2012). Data Scientist. *Harvard Business Review, 90*, 70–76.

Davila, A., Gupta, M., & Palmer, R. (2003). Moving Procurement Systems to the Internet: The Adoption, Use of E-Procurement Technology Models. *European Management Journal, 21*(1), 11–23.

Deloitte Analytics. (2012). Open Growth. Stimulating Demand for Open Data in the UK. *A Briefing from Deloitte Analytics*, 1–9.

Dimitri, N., Piga, G., & Spagnolo, G. (2006). *Handbook of Procurement*. Cambridge, UK: Cambridge University Press.

Dolcemascolo, D. (2006). *Improving the Extended Supply Chain*. New York: Productivity Press.

Dospinescu, et al. (2008). Mobile Enterprise Resource Planning: New Technology Horizons. *Communications of the IBIMA, 1*(11), 91–97.

Drath, R., & Horch, A. (2014). Industrie 4.0: Hit or Hype? *Industrial Electronics Magazine*. *IEEE, 8*(2), 56–58.

Dubois, A., & Araujo, L. (2007). Case Research in Purchasing and Supply Management: Opportunities and Challenges. *Journal of Purchasing and Supply Management, 13*(3), 170–181.

ECB. (2014). *2014 ECB Banking Structures Report*. Frankfurt: European Central Bank.

Emiliani, M. L., Stec, D., Grasso, L., & Stodder, J. (2003). *Better Thinking, Better Results: Using the Power of Lean as a Total Business Solution*. Kensington, CT: The CLBM.

Eriksson, E. (2010). Improving Construction Supply Chain Collaboration, Performance: A Lean Construction Pilot Project. *Supply Chain Management, An International Review, 15*(5), 394–403.

Ernst & Young. (2014). Global Banking and Capital Markets Center. EY Global Consumer Banking Survey

Essig, M. (2006). Electronic Procurement—Konzeption und Anwendung. In J. Zentes (Ed.), *Handbuch Handel* (pp. 735–758). Wiesbaden, Germany: Gabler.

Essig, M., & Arnold, U. (2001). Electronic Procurement in Supply Chain Management: An Information Economics-Based Analysis of Electronic Markets. *Journal of Supply Chain Management, 37*(4), 43–49.

Feldmann, C. (2015). Ohne den Einkauf findet Industrie 4.0 nicht statt. Retrieved March 20, 2017, from http://www.bme.de/ohne-den-einkauf-findetindustrie-40-nicht-statt-969/

Ferrari, E. (2004). Supply chain ed E-procurement: tra realtà e leggenda. *Logistica Management, 149*, 111–116.

Flinchbaugh, J., & Carlino, A. (2006). *The Hitchhiker's Guide to Lean: Lessons from the Road*. Dearborn, MI: EMS.

Forrester Research Inc. (2010, October). *Managing Mobile Complexity.* Forrester Report.

Fretty, P. (2014). Merging Crowdsourcing with Big Data Analytics. Retrieved April 16, 2016, from http://www.iee.ch/etech/2014/etech_0314/ind-1.htm

Garimella, K. K. (2006). *The Power of Process*. Tampa, FL: Meghan-Kiffer Press.

Gebauer, J., Shaw, M. J., & Zhao, K. (2003). The Efficacy of Mobile E-procurement: A Pilot Study. *Proceedings of the 36th Annual Hawaii International Conference on System Sciences, HICSS 2003 [1174386]*, Institute of Electrical and Electronics Engineers Inc. https://doi.org/10.1109/HICSS.2003.1174386.

George, M. L. (2002). *Lean Six Sigma: Combining Six Sigma Quality with Lean Speed*. New York: McGraw-Hill.

Giessmann, A., et al. (2012). Mobile Enterprise Applications—Current State and Future Directions. *Proceedings of the 2012 45th Hawaii International Conference on System Sciences*, January 4, 1363–1372 https://doi.org/10.1109/HICSS.2012.435.

Gunasekaran, A., Tirtiroglou, E., & Wolstencroft, V. (2002). An Investigation into the Application of Agile Manufacturing in an Aerospace Company. *Technovation, 22*(7), 405–415.

Gur, Y., Lu, L., & Weintraub, G. Y. (2015). *Model Agreements in Procurement: An Auction Model and Design Recommendations*. New York: Columbia University.

Gurstein, M. B. (2011). Open Data: Empowering the Empowered or Effective Data Use for Everyone? *First Monday, 16*(2). Retrieved August 13, 2017, from http://firstmonday.org/ojs/index.php/fm/article/view/3316/2764

Harris, R., & Rother, M. (2001). *Creating Continuous Flow, An Action Guide for Managers, Engineers, Production Associates*. Cambridge, MA: The Lean Enterprise Institute.

Harrison, A., & van Hoek, R. (2008). *Logistic Management and Strategy, Competing Through the Supply Chain* (3rd ed.). Upper Saddle River, NJ: Prentice Hall Harlow.

Hartley, J., Lane, L., & Hong, Y. (2004). An Exploration of the Adoption of E-Auctions in Supply Management. *IEEE Transactions on Engineering Management, 51*(2), 153–161.

Henke, M., & Schulte, A. T. (2015). Einkauf und die 4. Industrielle Revolution. *Beschaffung Aktuell, 62*(3), 20–21.

Hines, P., Holweg, M., & Rich, N. (2004). Learning to Evolve: A Review of Contemporary Lean Thinking. *International Journal of Operations and Production Management, 24*(10), 994–1011.

Hino, S. (2006). *Inside the Mind of Toyota*. New York: Productivity Press.

Hobbs, D. (2004). *Lean Manufacturing Implementation: A Complete Execution Manual for Any Size Manufacturer*. Plantation, FL: J. Ross Publishing.

Hodgkinson, D. (2001). *Public Authority Procurement Strategy*. London: Thomas Telford.

Hoffman, K. D. (1999). *Managing Marketing Services* (4th ed.). Orlando, FL: The Dryden Press.

Homer, G. M., Thompson, D. R., & Deacon, M. (2002). A Distributed Document Management System. *Computer and Control Engineering Journal, 13*(6), 315–318.

Hu, H., Wen, Y., Chua, T. S., & Li, X. (2014). Toward Scalable Systems for Big Data Analytics: A Technology Tutorial. *IEEE Access, 2*, 652–687.

Hugos, M. H. (2002). *Essentials of Supply Chain Management*. West Sussex, UK: John Wiley.

Husby, P. (2009). *Fix Your Supply Chains*. New York: Productivity Press.

Ilyas, R. M., Shankar, R., & Banwet, D. K. (2008). Creating Flex-Lean-Agile Supply Chain by Outsourcing: An ISM-Based Interventional Roadmap. *Business Process Management Journal, 14*(3), 338–389.

Jap, S. (2000). Going Going Gone. *Harvard Business Review, 78*(60), 50.

Jasti, N. V. K., & Kodali, R. (2016). Development of a Model for Lean Production System: An Integrative Approach. *Proceedings of the Institution of Mechanical Engineers, Part B: Journal of Engineering Manufacture, 230*(1), 136–156.

Jeston, J., & Nelis, J. (2006). *Business Process Management*. Amsterdam, The Netherlands: Elsevier Science BV.

Jung, H., Chen, F. F., & Jeong, B. (Eds.). (2007). *Trends in Supply Chain Design and Management, Technologies and methods. Part 2*. London: Springer Verlag.

Kagermann, H. (2014). Chancen von Industrie 4.0 nutzen. In T. Bauernhansl, M. T. Hompel, & B. Vogel-Heuser (Eds.), *Industrie 4.0 in Produktion. Automatisierung und Logistik* (pp. 603–614). Wiesbaden, Germany: Springer.

Kahl, S.J., & Berquist, T.P. (2000, September–October). A Primer on the Internet Supply. *Supply Chain Management Review*, 40–48.

Kalakota, R. (2000, July–August). Next-Generation B2B Solutions. *Supply Chain Management Review, 4*(3), 74–79.

Kalakota, R., & Robinson, M. (2000). *E-Business 2.0: Roadmap for Success*. New York: Addison-Wesley Information Technology.

Kane, G. C., Palmer, D., Phillips, A. N., & Kiron, D. (2015). Is Your Business Ready for a Digital Future? *MIT Sloan Management Review, 56*(4), 37–44.

Kaplan, S., & Sawhney, M. (2000, May–June). E-Hubs: The New B2B Marketplaces. *Harvard Business Review*, 97–103.

Kerber, B., & Dreckshage, B. J. (2011). *Lean Supply Chain Management Essentials: A Model for Materials Managers*. New York: Productivity Press.

Kim, J., & Shunk, D. (2004). Matching Indirect Procurement Process with Different B2B e-Procurement Systems. *Computers in Industry, 53*(2), 153–164.

Kimball, R., & Caserta, J. (2011). *The Data Warehouse ETL Toolkit: Practical Techniques for Extracting, Cleaning, Conforming, and Delivering Data*. Hoboken, NJ: John Wiley.

Kitchin, R. (2014). *The Data Revolution: Big Data, Open Data, Data Infrastructures and Their Consequences*. Los Angeles, CA: Sage.

Kollmann, T. (2011). *E-Business: Grundlagen elektronischer Geschäftsprozesze in der Net Economy*. Wiesbaden, Germany: Gabler.

Koppelmann, U. (2007). Internet und Beschaffung. In W. Brenner & R. Wenger (Eds.), *Elektronische Beschaffung: Stand und Entwicklungstendenzen* (pp. 23–38). Berlin, Germany: Springer.

Kovatsch, M., Mayer, S., & Ostermaier, B. (2012). Moving Application Logic from the Firmware to the Cloud: Towards the Thin Server Architecture for the Internet of Things. In *Proc. Innovative Mobile and Internet Services and Ubiquitous Computing (IMIS), 2012 Sixth International Conference* (pp. 751–756). Piscataway, NJ: IEEE.

KPMG. (2012). KPMG Financial Services, MiFID Matters—Assessing The Wider Agenda.

KPMG. (2014a). 2014 Banking Industry Survey. Retrieved August 15, 2017, from http://www.kpmginfo.com/industryoutlooksurveys/2014/pdfs/KPMGBankingIndustrySurvey_072414.pdf

KPMG. (2014b). High Impact Procurement Operating Models. Retrieved August 15, 2017, from https://www.slideshare.net/KPMG_US/pom-slide-share

Kraljic, P. (1983). Purchasing Must Become Supply Management. *Harvard Business Review, 61*, 109–117.

Krogh, H., & Skogen, T.A. (2016). Supplier Evaluation and Development in a Lean Perspective, Master's thesis, NTNU, Trondheim, Norway.

Krüeger, M. W., & Dix, M. (2014). Analysis of Cloud Business Models for the Industrial B2B Market. *IT Convergence Practice (INPRA), 2*(2).

Kuglin, F. A., & Rosenbaum, B. (2001). *The Supply Chain Network @ Internet Speed* (p. 246). New York: Amacom.

Kuhn, A., & Hellingrath, B. (2002). *Supply Chain Management: Optimierte Zusammenarbeit in der Wertschöpfungskette*. Berlin, Germany: Springer.

Kuk, G., & Davies, T. (2011). The Roles of Agency and Artifacts in Assembling Open Data Complementarities. *Proceedings of the Thirty Second International Conference on Information Systems*, Shanghai, China.

Lambert, D. M., & Cooper, M. C. (2000). Issues in Supply Chain Management. *Industrial Marketing Management, 29*, 65–83.

Larsen, T., Kotzab, H., & Grieger, M. (2003). Electronic Marketplaces, Supply Chain Relationships. *Industrial Marketing Management, 32*(3), 199–210.

Lasi, H., Fettke, P., Kemper, H. G., Feld, T., & Hoffmann, M. (2014). Industry 4.0. *Business and Information Systems Engineering, 6*(4), 239–242.

Lawrenz, O., Hildebrand, K., Nenninger, M., & Hillek, T. (2013). *Supply Chain Management: Konzepte, Erfahrungsberichte und Strategien auf dem Wfor example, zu digitalen Wertschöpfungsnetzen*. Berlin: Springer.

Lee, J., Kao, H. A., & Yang, S. (2013). Service Innovation and Smart Analytics for Industry 4.0 and big data environment. *Procedia CIRP, 16*, 3–8.

Levitt, J. (2005). *Complete Guide to Predictive, Preventive Maintenance*. Norwalk, CT: Industrial Press. p. 207.

Liker, J. (2004). *The Toyota Way: 14 Management Principles from the World's Greatest Manufacturer*. New York: McGraw-Hill.

Liker, J. K., & Meier, D. (2006). *The Toyota Way Fieldbook*. New York: McGraw-Hill.

Liker, J., et al. (2008). *Toyota Culture: The Heart, Soul of the Toyota Way*. New York: McGraw-Hill.

Louis, R. S. (2006). *Custom Kanban*. New York: Productivity Press.

Lovelock, C., & Gummesson, E. (2004). Whither Services Marketing? In Search of a New Paradigm, fresh perspectives. *Journal of Service Research, 7*(1), 20–41.

Lupi. C. (2007). Una intervista a Bernardo Nicoletti: Lean Six Sigma: un percorso di successo. *Sistemi & Impresa*, N. 4, Mag.

Marchand, D. (Ed.). (2000). *Competing with Information*. Chichester, UK: John Wiley.

Marino, B., & Juels, A. (2016). Setting Standards for Altering and Undoing Smart Contracts. In *International Symposium on Rules and Rule Markup Languages for the Semantic Web* (pp. 151–166). Cham, Switzerland: Springer.

Mariotto, C., & Verdier, M. (2015). *Innovation and Competition in Internet and Mobile Banking: An Industrial Organization Perspective*. Helsinki: Bank of Finland.

Martin, C. (2005). *Supply Chain Management, Creating Value with Logistics*. Upper Saddle River, NJ: Pearson Education.

Martin, J. W. (2007). *Lean Six Sigma for Supply Chain management*. New York: McGraw-Hill.

Mason-Jones, R., Naylor, B., & Towill, D. R. (2000). Engineering the Leagile Supply Chain. *International Journal of Agile Management System, 2*(1), 54–61.

Mcafee, A. (2006). Mastering the Three Worlds of Information Technology. *Harvard Business Review, 84*(11), 141–149.

McCue, C., & Roman, A. V. (2012). E-Procurement: Myth or Reality. *Journal of Public Procurement, 12*(2), 221–248.

McKinsey and Co. (2012). *Banking on Customer Centricity: Transforming Banks into Customer-Centric Organizations*. New York: McKinsey and Co.

Mell, P., & Grance, T. (2011). *The NIST Definition of Cloud Computing*. NIST Special Publication. Gaithersburg, MD: NIST.

Menges, M., Roubanov, D., & Ernst, J. (2014). Produktionsplanung und -steuerung (PPS). In M. Eigner, D. Roubanov, & R. Zafirov (Eds.), *Modellbasierte virtuelle Produktentwicklung* (pp. 301–326). Berlin, Germany: Springer.

Messe, H. (n.d.). Industrie 4.0 muss sich erst beweisen. Retrieved September 24, 2016, from http://www.handelsblatt.com/unternehmen/industrie/hannover-messe-industrie-4-0-muss-sich-erst-beweisen/8044930.html

Minoru, T. (2006). *Il Modello Toyota*. *Il Sole 24 Ore*. Milano, Italy.

Monczka, R., et al. (2009). *Purchasing and Supply Chain Management*. Andover, UK: Cengage.

Morabito, V. (2015). *Big Data and Analytics: Strategic and Organizational Impacts*. Cham, Switzerland: Springer.

Mouritsen, J., & Hansen, A. (2006). *Contemporary Issues in Management Accounting*. Retrieved from http://books.google.com

Myerson, P. A. (2012). *Lean Supply Chain and Logistics Management*. New York: McGraw-Hill.

Myerson, P. A. (2016). *Lean and Technology: Working Hand in Hand to Enable and Energize Your Global Supply Chain*. London: FT Press.

Mynarz, J., Svátek, V., & Di Noia, T. (2015). Matchmaking Public Procurement Linked Open Data. In *OTM Confederated International Conferences: On the Move to Meaningful Internet Systems* (pp. 405–422). Cham, Switzerland: Springer.

Nakano, R. (2002). *Web Content Management: A Collaborative Approach*. Boston, MA: Addison-Wesley.

Nekolar, A. P. (2013). *E-Procurement: Euphorie und Realität*. Berlin, Germany: Springer.

Nicoletti, B. (2001). *Assistenza Tecnica* (2nd ed.). Milano, Italy: FrancoAngeli.

Nicoletti, B. (2006). Nuovo Pignone, l'arte di fondere Lean Management e Six Sigma. *Computerworld Italy, 6*, 1–2.

Nicoletti, B. (2007). Lean Hand Off. *Annual Conference of the Section Informatics ANIMP*, Stresa, Italy.

Nicoletti, B. (2008a). Information Based Service. *Manutenzione – Tecnica e Management, 9*, 11–19.

Nicoletti, B. (2008b). Il Futuro dell'Assistenza Tecnica. *Manutenzione – Tecnica e Management, 7/8*, 25–29.

Nicoletti, B. (2008c). The Lean Branch. Fintech 2008, February 29, Singapore.

Nicoletti, B. (2008d). Unified Content Management. *Sistemi e Automazione, 4*, 38–43.

Nicoletti, B. (2010a). Il Miglioramento dei Processi dell'Assistenza Tecnica con il Lean and Digitize. *Manutenzione Tecnica e Management, 10*, 22–23.

Nicoletti, B. (2010b). *La metodologia del Lean and Digitize. Per una organizzazione eccellente*. Milano, Italy: FrancoAngeli.

Nicoletti, B. (2010c). *Gli Strumenti del Lean and Digitize*. Milano, Italy: FrancoAngeli.

Nicoletti, B. (2012). *Lean Procurement*. Milano, Italy: FrancoAngeli.

Nicoletti, B. (2015). ll rinnovamento del Procurement. *The Procurement Magazine*.

Normann, R. (1984). *Service Management* (pp. 131–146). Chichester, UK: John Wiley.

Nugroho, R. P., Zuiderwijk, A., Janssen, M., & de Jong, M. (2015). A Comparison of National Open Data Policies: Lessons Learned. *Transforming Government: People, Process and Policy, 9*(3), 286–308.

O'Riain, S., Curry, E., & Harth, A. (2012). XBRL and Open Data for Global Financial Ecosystems: A Linked Data Approach. *International Journal of Accounting Information Systems, 13*(2), 141–162.

Ohno, T. (1988). *The Toyota Production System*. New York: Productivity Press.

Ølnes, S. (2015). Beyond Bitcoin-Public Sector Innovation Using the Bitcoin Blockchain Technology. *Norskkonferanse for organisasjoners bruk av IT, 23*(1), 1–11.

Osterwalder, A., & Pigneur, Y. (2010). *Business Model Generation: A Handbook for Visionaries, Game Changers, and Challengers*. Chichester, UK: John Wiley.

Patton, M. Q. (2002). *Qualitative Research and Evaluation Methods* (3rd ed.). Thousand Oaks, CA: Sage Publications.

Patty, R. M., & Denton, M. A. (2010). *The End of Project Overruns: Lean, Beyond for Engineering, Procurement*. Boca Raton, FL: Universal Publishers.

Perkin, N., & Abraham, P. (2017). *Building the Agile Business Through Digital Transformation*. London: Kogan Page Publishers.

Perugini, M. L., & Dal Checco, P. (2015). Introduzione agli Smart Contract (Introduction to Smart Contract). Available at SSRN 2729545.

Picot, A., Reichwald, R., & Wigand, R. T. (2001). *Die grenzenlose Unternehmung: Information, Organisation und Management* (4th ed.). Wiesbaden, Germany: Gabler.

Plenert, G. J. (2007). *Reinventing Lean*. Burlington, MA: Elesevier.

Poirier, C. C., & Bauer, M. J. (2000). *E-Supply Chain*. San Francisco, CA: Berrett-Koehler.

Poppendieck, M., & Poppendieck, T. (2003). *Lean Software Development: An Agile Toolkit*. Boston, MA: Addison Wesley.

Porter, M. (1979, March–April). How Competitive Forces Shape Strategy. *Harvard Business Review.*

Posada, J., Toro, C., Barandiaran, I., Oyarzun, D., Stricker, D., de Amicis, R., et al. (2015). Visual Computing as a Key Enabling Technology for Industrie 4.0 and Industrial Internet. *IEEE Computer Graphics and Applications, 35*(2), 26–40.

Puschmann, T., & Alt, R. (2005). Successful Use of E-Procurement in Supply Chains. *Supply Chain Management, 10*(2), 122–133.

Rizzo, G., Morando, F., & De Martin, J. C. (2009). Open Data: la piattaforma di dati aperti per il Linked Data. *International Journal on Semantic Web and Information Systems, 5*(3), 1–22.

Rockley, A., Kostur, P., & Manning, S. (2003). *Managing Enterprise Content: A Unified Content Strategy*. Harlow, UK: New Riders Publishing.

Roggenhofer, S. (2008). Banking on Lean. McKinsey Report. http://www.mckinsey.com/App_Media/Reports/Financial_Services/Banking_On_Lean_For_A_Competitive_Edge.pdf

Ronchi, S., Brun, A., Golini, R., & Fan, X. (2010). What is the Value of an IT E-Procurement System? *Journal of Purchasing and Supply Management, 16*(2), 131–140.

Rosca, E., & Bendul, J. (2017). Frugal and Lean Engineering: A Critical Comparison and Implications for Logistics Processes. In *Dynamics in Logistics* (pp. 335–345). Berlin, Germany: Springer.

Ross, D. F. (2011). *Introduction to Supply Chain Management Technologies*. Boca Raton, FL: CRC Press, Taylor and Francis Group.

Russell, J., & Cohn, R. (2012). E-Procurement, Ltd. Book on Demand.

Sabraz Nawaz, S., Pulasinghe, K., & Thelijjagoda, S. (2015). Mobile Office and its Implications for ERP Systems: A Review of Literature. *International*

Journal of Advanced Research in Computer Science and Software Engineering, 5(5), 12–16.

Saggau, B. (2007). *Organisation elektronischer Beschaffung. Entwurf eines transaktionskostentheoretischen Beschreibungs- und Erklärungsrahmens*. Wiesbaden, Germany: Deutscher Universitäts-Verlag.

Sarkar, D. (2007). *Lean for Service Organizations, Offices—A Holistic Approach for Operational Excellence*. Milwaukee, WI: ASQ Press.

Savarese, A. (2007, October). Una Intervista con Bernardo Nicoletti, CIO GE Oil and Gas. *Data Manager*.

Schadler, T., Yates, S., Wang, N., & Sharma, A. (2013). Mobile Workforce Adoption Trends. *Forrester Research.*

Scherr-Rathje, M., et al. (2009). *Lean, Take two! Reflections from the Second Attempt at Lean Implementation*. Bloomington, IN: Kelly School of Business.

Schlick, J., Stephan, P., Loskyll, M., & Lappe, D. (2014). Industrie 4.0 in der praktischen Anwendung. In T. Bauernhansl, M. ten Hompel, & B. Vogel-Heuser (Eds.), *Industrie 4.0 in Produktion, Automatisierung und Logistik: Anwendung—Technologien—Migration* (pp. 57–84). Wiesbaden, Germany: Springer.

Schmidt, R., Möhring, M., Härting, R. C., Reichstein, C., Neumaier, P., & Jozinovic, P. (2015). Industry 4.0: Potentials for Creating Smart Products: Empirical Research Results. In W. Abramowicz (Ed.), *Business Information Systems* (pp. 16–27). Wiesbaden, Germany: Springer.

Schniederjans, M. J., Schniederjans, D. G., & Schniederjans, A. M. (2009). *Topics in Lean Supply Chain Management*. Hackensack, NJ: World Scientific Press.

Schuh, G., Potente, T., Wesch-Potente, C., Weber, A. R., & Prote, J. P. (2014). Collaboration Mechanisms to Increase Productivity in the Context of Industrie 4.0. In *Proceedings 19th Robust Manufacturing Conference* (pp. 51–56). Bremen, Germany: CIRP.

Semprini. (2008). The Lean Production in Micro. *SME*. Retrieved March 25, 2017, from http://www.eccellere.com

Sendler, U. (2013). Industrie 4.0: Beherrschung der industriellen Komplexität mit SysLM (Systems Lifecycle Management). In U. Sendler (Ed.), *Industrie 4.0: Beherrschung der industriellen Komplexität mit Sys LM* (p. 120). Berlin: Springer-Vieweg.

Shah, R., & Ward, P. T. (2003). Lean Manufacturing: Context, Practice Bundles, Performance. *Journal of Operations Management, 21*, 129–149.

Shohua, D., et al. (2008). Implementing Best Practices. *Pipeline, Gas Technology*, 26–33.

Smalley, S. (2004). *Creating Level Pull, A Lean Production-System Improvement Guide for Production-Control, Operations, Engineering Professionals*. Cambridge, MA: The Lean Enterprise Institute.

Smith, H., & Fingar, P. (2003). *Business Process Management, The Third Wave*. Tampa, FL: Meghan-Kiffer.

Smith, V. C., Goel, S., & Gulhane, T. (2009). *Enabling Profitable Growth Through Procurement: Transforming the Sourcing and Procurement Organization*. Chicago, IL: ASUG/SAP.

Smith, S., & Wheeler, J. (2002). *Managing the Customer Experience: Turning Customers*. Harlow, UK: Pearson Education.

Soares, S. (2013). *IBM InfoSphere: A Platform for Big Data Governance and Process Data Governance*. Boise, ID: MC Press. Online, LLC

Stadtler, H., & Kilger, C. (Eds.). (2008). *Supply Chain Management*. Wiesbaden, Germany: Springer.

Sundermann, F. (2013). Einkauf 4.0: Einsparungen durch Zusammenarbeit von Einkauf und Technik. *Pool4Tool*, (11), 24–28.

Tangi, L. (2015). Open Government Data: la situazione italiana studiata attraverso un modello di classificazione dei portali di pubblicazione dei dati. Quali azioni per una Pubblica Amministrazione più trasparente e vicina ai cittadini? *Tesi Politecnico di Milano*, December, Milano, Italy.

TenHompel, M., & Henke, M. (2014). Logistik 4.0. In T. Bauernhansl, M. Ten Hompel, & B. Vogel-Heuser (Eds.), *Industrie 4.0 in Produktion. Automatisierung und Logistik* (pp. 615–624). Wiesbaden, Germany: Springer.

Tolman, A., Matinmikko, T., Möttönen, V., Tulla, K., & Vähä, P. (2009). The Benefits and Obstacles of Mobile Technology in FM Service Procurement. *Facilities, 27*(11–12), 445–456.

Tontini, G., Tontini, G., de Carvalho, L. C., de Carvalho, L. C., Schlindwein, N. F. D. C., Schlindwein, N. F. D. C., et al. (2016). Maturity Model of Procurement and Supply Management in Small and Medium-Size Enterprises: A Benchmarking of Hospitals and Metal-Mechanic Companies. *International Journal of Quality and Service Sciences, 8*(3), 315–333.

Ubaldi, B. (2013). *Open Government Data: Towards Empirical Analysis of Open Government Data Initiatives*. OECD Working Papers on Public Governance, No. 22. Paris, France: OECD Publishing.

Ubaldi, B. (2015). Open data e la nuova frontiera della fornitura di servizi innovativi. *Prisma Economia-Società-Lavoro*.

Uday, M., & Chon, G. (2004). Applying Lean Manufacturing Principles to Information Intensive Services. *International Journal of Services Technology and Management, 5*(5–6), 488–506.

Ukalkar, S. (2000). *Strategic Procurement Management for Competitive Advantage* (p. 291). Oxford, UK: Oxford University Press.

Vafopoulos, M.N., Meimaris, M., Papantoniou, A., Anagnostopoulos, I., Alexiou, G., Avraam, I., et al. (2012). Public Spending: Interconnecting and Visualizing Greek Public Expenditure Following Linked Open Data Directives. Available at SSRN 2064517.

Van Weele, A. J. (2010). *Purchasing and Supply Chain Management. Analysis, Strategy, Planning and Practice* (5th ed.). Andover, UK: Cengage.

Various Authors. (2007). *Integrated Rath and Strong's Six Sigma Pocket Guide*. Lexington, MA: Rath and Strong.

Vassiliadis, P., Simitsis, A., & Skiadopoulos, S. (2002). Conceptual Modeling for ETL Processes. In *Proceedings of the 5th ACM International Workshop on Data Warehousing and OLAP* (pp. 14–21). New York: ACM.

Vatalaro, J. C., & Taylor, R. E. (2005). *Implementing a Mixed Model Kanban System: The Lean Replenishment Pull for Production*. New York: Productivity Press.

Vincel, J. P. (2004). *Lean Supply Chain Management: A Handbook For Strategic Procurement*. New York: Productivity Press.

Volarevic, M., Strasberger, V., & Pacelat, E. (2000). A Philosophy of the Electronic Document Management. *Proceedings of the 22nd International Conference Information Technology Interfaces*, 141–146.

Voss, C., Tsikriktis, N., & Frohlich, M. (2002). Case Research in Operations Management. *International Journal of Operations and Production Management, 22*(2), 195–219.

Walker, D., & Hampson, K. (Eds.). (2003). *Procurement Strategies*. Oxford, UK: Blackwell Publishing.

Wang, S., Wan, J., Li, D., & Zhang, C. (2015). Implementing Smart Factory of Industrie 4.0: An Outlook. *International Journal of Distributed Sensor Networks*, 12(1). ePublication, Article ID 681806. doi: 10.1155/2016/3159805

Wannenwetsch, H., & Nicolai, S. (2004). *eSupply-Chain-Management: Grundlagen, Strategien, Praxisanwendungen*. Wiesbaden, Germany: Gabler.

Wannenwetsch, H., & Vernetztes. (2005). *Supply Chain Management: SCM-Integration über die gesamte Wertschöpfungskette*. Berlin, Germany: Springer.

Ward, A. C. (2007). *Lean Product, Process Development*. Cambridge, MA: Lean Enterprise Institute.

Werner, W., & Delfmann, K.-W.-T. (2008). *Strategic Supply Chain Design*. Koln, Germany: Koelner Wissenshaft Verlag.

Wilson, M. M. J., & Ram, N. R. (2009). Enabling Lean Sourcing: A Consolidation Model for Small-, Medium-Sized Enterprises. *Manufacturing Journal Management Technology, 20*(6), 817–833.

Wincel, J. P. (2003). *Lean Supply Chain Management: A Handbook for Strategic Procurement*. New York: Productivity Press.

Wisner, J. D., Keong Leong, G., & Tan, K. C. (2006). *Principles of Supply Chain Management. A Balanced Approach*. Stamford, CT: Thomson Learning.

Wisner, J. D., Tan, K. C., & Leong, G. K. (2015). *Principles of Supply Chain Management: A Balanced Approach*. Boston, MA: Cengage.

Womack, J. P., & Jones, D. T. (2009). *Seeing the Whole. Mapping the Extended Supply Chain*. Cambridge, MA: Lean Enterprise Institute.

Worley, J. M., & Doolen, T. L. (2006). The Role of Communication, Management Support for a Lean Manufacturing Implementation. *Management Decision, 44*(2), 228–245.

Yu, L. (2011). Linked Open Data. In *A Developer's Guide to the Semantic Web* (pp. 409–466). Berlin, Germany: Springer.

Websites

http://cloudmate.com/about
http://data.gov.uk/
http://www.zara.com/no/no/dame-c390001.html
http://leanforum.se/boktorget.asp
http://leanforum.se/boktorget_anmalan.asp
http://openparliament.ca
http://searchmanufacturingerp.techtarget.com/news
http://searchstorage.techtarget.com/podcast/Understanding-stripped-down-hyperscale-storage-for-big-data-use-cases
http://www.3isite.com
http://www.aberdeen.com
http://www.altimate.ca
http://www.asslogistica.it
http://www.assomoda.it
http://www.benetton.com
http://www.bernardonicoletti.com
http://www.bershka.com
http://www.cameramoda.it

http://www.canon.it
http://www.chaseperformance.com
http://www.cloudmate.com
http://www.cnipa.it
http://www.consult.it
http://www.con-way.com
http://www.cscmp.org
http://www.data.com
http://www.dcvelocity.com
http://www.dylog.it
http://www.eccellere.com
http://www.esisinc.com
http://www.freedomdefined.org/Definition
http://www.fujutsu.com
http://www.georgia-associates.com
http://www.gformula.com
http://www.hem.com
http://www.hp.it
http://www.ibm.it
http://www.idtech.it
http://www.ieee.com
http://www.iged.it
http://www.ilsole24ore.com
http://www.ilsole24ore.it
http://www.impind.de.unifi.it
http://www.impresaestesa.it
http://www.impresaprogetto.it
http://www.inditex.com
http://www.industryweek.com
http://www.isixsigma.com
http://www.istitute-of-logistics.org.uk
http://www.iungo.it
http://www.laserfiche.com
http://www.leancenter.it
http://www.leancompany.it
http://www.Leandigitize.com
http://www.leanmanufacturing.it
http://www.logility.com

http://www.ltdmgmt.com
http://www.managementstudyguide.com
http://www.massimodutti.com
http://www.mckinseyquarterly.com
http://www.microsoft.com
http://www.microsoft.it
http://www.novell.com
http://www.ohio-state.edu/index.php
http://www.opendefinition.org
http://www.openwork.it
http://www.optimialelectronics.com
http://www.organizzazioniaziendali.it/index.asp
http://www.oysho.com
http://www.panorama.it
http://www.pullandbear.com
http://www.qualityi.it
http://www.queoconsulting.it
http://www.qurius.it
http://www.reggiani.it
http://www.ryder.com
http://www.sas.com
http://www.sciencedirect.com
http://www.scmr.com
http://www.scodanibbio.com/site/access/homeaccess/65.html
http://www.sistemamodaitalia.it
http://www.skillprofiles.eu
http://www.stradivarius.com
http://www.supply-chain.org
http://www.toshiba.it
http://www.tso.it
http://www.unifi.it
http://www.unioncamere.it
http://www.unitec.it
http://www.uterque.es
http://www.xerox.it
http://www.zara.com
http://www.zarahome.com
http://www.zenshare.it

Notes

1. http://www.bbc.com/news/technology-14841018, Accessed 30 July 2016.
2. Domingos, P. (2015). *The master algorithm: How the quest for the ultimate learning machine will remake our world*. Basic Books, New York, NY.
3. Karajovic, M., Narula, H., Pandya, K., Patel, J., and Warring, I. (2017). *Blockchain: A Manager's Guide*, A Report for OMIS 3710 Schulich School of Business York University Toronto, Ontario.
4. http://www.slideshare.net/wmougayar/blockchain-2015-analyzing-the-blockchain-in-financial-services, Accessed 30 July 2016.
5. https://www.seedr.cc/, Accessed 25 April 2017.
6. Dixit, U. S., Hazarika, M., and Davim, J. P. (2017). Emergence of Production and Industrial Engineering. In *A Brief History of Mechanical Engineering*. Springer International Publishing, New York, NY: 127–146.
7. Deming, W.E. (1994). *The new economics for industry, government, education*. MIT Press, Boston, MA.

Index[1]

[1] Note: Page number followed by 'n' refers to notes.

B. Nicoletti, *Agile Procurement*,
DOI 10.1007/978-3-319-61085-6