

LIFE SCIENCES PROCESS CLASSIFICATION FRAMEWORK®

Version 7.2.2

LIFE SCIENCES PCF OVERVIEW

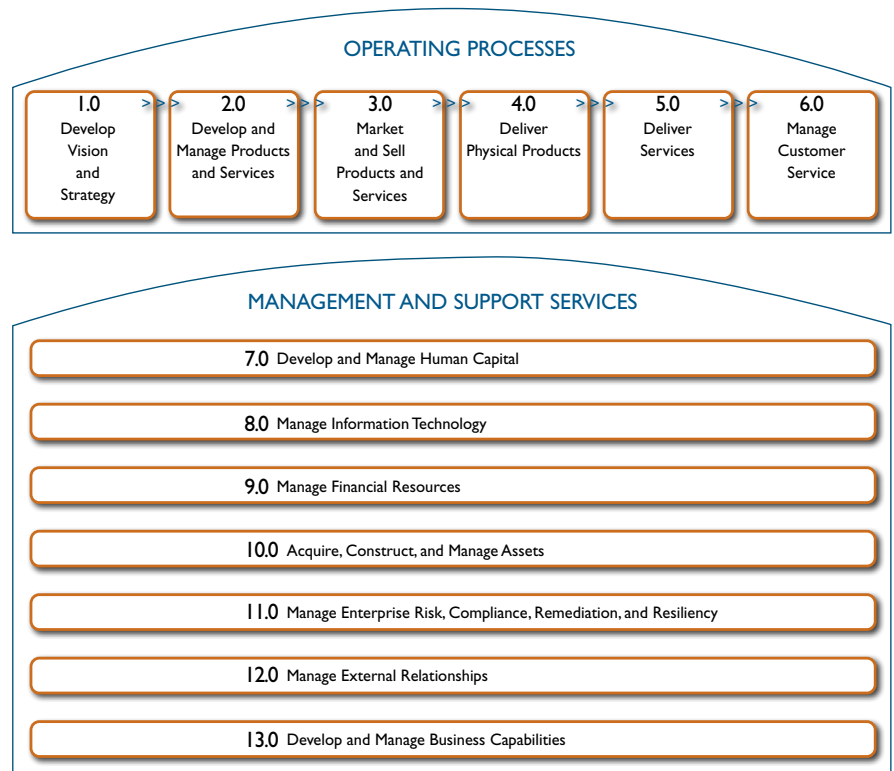
Based on the renowned Process Classification Framework® (PCF), The Life Sciences PCF® is customized to define processes used within organizations around the world. Version 7.2.2 of the The Life Sciences PCF® includes changes to make it compliant with the most recent information in The Life Sciences PCF® v7.0.5. This version of the PCF was developed in conjunction with IBM and contains feedback from a variety of individuals within the industry. APQC provided much of the subject matter expertise to create this industry specific process classification framework.

THE FRAMEWORK FOR PROCESS IMPROVEMENT

Experience shows that the potential of benchmarking to drive dramatic improvement lies squarely in making out-of-the-box comparisons and searching for insights not typically found within intra-industry paradigms. To enable this beneficial benchmarking, the APQC Process Classification Framework (PCF)® serves as a high-level, industry-neutral enterprise process model that allows organizations to see their business processes from a cross-industry viewpoint. The cross-industry framework has experienced more than 20 years of creative use by thousands of organizations worldwide. The PCF provides the foundation for APQC's Open Standards Benchmarking® (OSB) database and the work of its advisory council of global industry leaders. Each version of the PCF will continue to be enhanced as the OSB database further develops definitions, processes, and measures. The PCF and associated measures and benchmarking surveys are available for download from the Open Standards Benchmarking web site at www.apqc.org/osb.

HISTORY

The cross-industry Process Classification Framework® was originally envisioned as a taxonomy of business processes and a common language through which APQC member organizations could benchmark their processes. The initial design involved APQC and more than 80 organizations with a strong interest in advancing the use of benchmarking in the United States and worldwide. Since its inception in 1992, the PCF has seen updates to most of its content. These updates keep the framework current with the ways that organizations do business around the world. In 2014, APQC worked to enhance the cross-industry PCF and updated a number of industry-specific process classification frameworks.



The PCF is written in United States English language format.



LOOKING FORWARD

The cross-industry and industry Process Classification Frameworks are evolving models, which APQC will continue to enhance and improve regularly. Thus, APQC encourages comments, suggestions, and more importantly, the sharing of insights from having applied the PCF within your organization. Share your suggestions and experiences with the PCF by e-mailing pcf_feedback@apqc.org.

ABOUT APQC

An internationally recognized resource for process and performance improvement, APQC helps organizations adapt to rapidly changing environments, build new and better ways to work, and succeed in a competitive marketplace. With a focus on productivity, knowledge management, benchmarking, and quality improvement initiatives, APQC works with its member organizations to identify best practices; discover effective methods of improvement; broadly disseminate findings; and connect individuals with one another and the knowledge,

training, and tools they need to succeed. Founded in 1977, APQC is a member-based non profit serving organizations around the world in all sectors of business, education, and government. APQC is also a proud winner of the 2003, 2004, 2008, 2012, and 2013 North American Most Admired Knowledge Enterprises (MAKE) awards. This award is based on a study by Teleos, a European-based research firm, and the KNOW network.

ABOUT IBM

At IBM, we collaborate with our clients, bringing together business insight, advanced research and technology to give them a distinct advantage in today's rapidly changing environment. Through our integrated approach to business design and execution, we help turn strategies into action. And with expertise in 17 industries and global capabilities that span 170 countries, we can help clients anticipate change and profit from new opportunities. For more information, visit www.ibm.com/services/gbs.

PROCESS CLASSIFICATION FRAMEWORK®

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PCF LEVELS EXPLAINED

Level 1 - Category	10.0 Manage Enterprise Risk, Compliance, Remediation and Resiliency (16437)
Represents the highest level of process in the enterprise, such as Manage customer service, Supply chain, Financial organization, and Human resources.	
Level 2 - Process Group	10.1 Manage enterprise risk (17060)
Indicates the next level of processes and represents a group of processes. Perform after sales repairs, Procurement, Accounts payable, Recruit/source, and Develop sales strategy are examples of process groups.	
Level 3 - Process	10.1.4 Manage business unit and function risk (17061)
A process is the next level of decomposition after a process group. The process may include elements related to variants and rework in addition to the core elements needed to accomplish the process.	
Level 4 - Activity	10.1.4.3 Develop mitigation plans for risks (16458)
Indicates key events performed when executing a process. Examples of activities include Receive customer requests, Resolve customer complaints, and Negotiate purchasing contracts.	
Level 5 - Task	10.1.4.3.1 Assess adequacy of insurance cover (18129)
Tasks represent the next level of hierarchical decomposition after activities. Tasks are generally much more fine grained and may vary widely across industries. Examples include: Create business case and obtain funding and Design recognition and reward approaches.	

PROCESS ELEMENT NUMBERING SCHEME

The PCF identifies each process element using a unique 5-digit reference number following the name of the process element.[i.e., **(16437)**, **(17060)**, **(17061)** **(16458)**, **(18129)**, shown in the above graphic]. This number will always refer to the conceptual definition of the process element. The actual process elements and actual definition may change, but conceptually the decomposition will remain consistent considering the entire scope of the PCF. A new 5-digit number will be assigned to a process element if its definition substantially changes.

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This work is based in part on an Industry Process Classification Framework (“PCF”), an open standard developed by APQC and IBM to promote benchmarking and best practices worldwide. The PCF is intended to facilitate organizational improvement through process management and benchmarking, regardless of industry, size, or geography. To download the full PCF or other industry-specific versions of the PCF, as well as associated measures and benchmarking, please visit www.apqc.org/pcf.

1.0 Develop Vision and Strategy (10002)

1.1 Define the business concept and long-term vision (17040)

- 1.1.1 Assess the external environment (10017)
 - 1.1.1.1 Identify competitors (19945)
 - 1.1.1.2 Analyze and evaluate competition (10021)
 - 1.1.1.3 Identify economic trends (10022)
 - 1.1.1.4 Identify political and regulatory issues (10023)
 - 1.1.1.5 Identify trends in medicines and medical system regulation (17660)
 - 1.1.1.6 Assess new technology innovations (10024)
 - 1.1.1.7 Analyze demographics (10025)
 - 1.1.1.8 Identify social and cultural changes (10026)
 - 1.1.1.9 Identify ecological concerns (10027)
 - 1.1.1.10 Identify trends in healthcare legislation (17661)
 - 1.1.1.11 Identify trends in healthcare funding (17662)
 - 1.1.1.12 Identify trends in healthcare delivery (17663)
 - 1.1.1.13 Identify trends in healthcare patient engagement (17664)
 - 1.1.1.14 Identify intellectual property concerns (16790)
 - 1.1.1.15 Evaluate IP acquisition options (16791)
- 1.1.2 Survey market and determine customer needs and wants (10018)
 - 1.1.2.1 Conduct qualitative/quantitative research and assessments (10028)
 - 1.1.2.2 Capture customer needs and wants (19946)
 - 1.1.2.3 Assess customer needs and wants (19947)
- 1.1.3 Assess the internal environment (10019)
 - 1.1.3.1 Analyze organizational characteristics (10030)
 - 1.1.3.2 Analyze internal operations (19948)
 - 1.1.3.3 Create baselines for current processes (10031)
 - 1.1.3.4 Analyze systems and technology (10032)
 - 1.1.3.5 Analyze financial health (10033)
 - 1.1.3.6 Identify core competencies (10034)
- 1.1.4 Establish strategic vision (10020)
 - 1.1.4.1 Align stakeholders around strategic vision (10035)
 - 1.1.4.2 Define the strategic vision (19949)
 - 1.1.4.3 Communicate strategic vision to stakeholders (10036)
- 1.1.5 Conduct organization restructuring opportunities (16792)
 - 1.1.5.1 Identify restructuring opportunities (16793)
 - 1.1.5.2 Perform due-diligence (16794)
 - 1.1.5.3 Analyze deal options (16795)
 - 1.1.5.3.1 Evaluate acquisition options (16796)
 - 1.1.5.3.2 Evaluate merger options (16797)
 - 1.1.5.3.3 Evaluate de-merger options (16798)
 - 1.1.5.3.4 Evaluate divesture options (16799)

1.2 Develop business strategy (10015)

- 1.2.1 Develop overall mission statement (10037)

- 1.2.1.1 Define current business (10044)
- 1.2.1.2 Formulate mission (10045)
- 1.2.1.3 Communicate mission (10046)
- 1.2.2 Define and evaluate strategic options to achieve the objectives (10038)
 - 1.2.2.1 Define strategic options (10047)
 - 1.2.2.1.1 Select partnerships and relationships to support the extended enterprise (18083)
 - 1.2.2.2 Assess and analyze impact of each option (10048)
 - 1.2.2.2.1 Identify implications for key operating model business elements that require change (13289)
 - 1.2.2.2.2 Identify implications for key technology aspects (13290)
 - 1.2.2.3 Develop B2B strategy (16800)
 - 1.2.2.3.1 Develop service as a product strategy (16801)
 - 1.2.2.4 Develop B2C strategy (16802)
 - 1.2.2.5 Develop partner/alliance strategy (16803)
 - 1.2.2.6 Develop merger/demerger/acquisition/exit strategy (16805)
 - 1.2.2.7 Develop innovation strategy (16806)
 - 1.2.2.8 Develop sustainability strategy (14189)
 - 1.2.2.9 Develop global support strategy (19950)
 - 1.2.2.10 Develop shared services strategy (19951)
 - 1.2.2.11 Develop lean/continuous improvement strategy (14197)
 - 1.2.2.12 Develop innovation strategy and framework (19952)
- 1.2.3 Select long-term business strategy (10039)
- 1.2.4 Coordinate and align functional and process strategies (10040)
- 1.2.5 Create organizational design (10041)
 - 1.2.5.1 Evaluate breadth and depth of organizational structure (10049)
 - 1.2.5.2 Perform job-specific roles mapping and value-added analyses (10050)
 - 1.2.5.3 Develop role activity diagrams to assess hand-off activity (10051)
 - 1.2.5.4 Perform organization redesign workshops (10052)
 - 1.2.5.5 Design the relationships between organizational units (10053)
 - 1.2.5.6 Develop role analysis and activity diagrams for key processes (10054)
 - 1.2.5.7 Assess organizational implication of feasible alternatives (10055)
 - 1.2.5.8 Migrate to new organization (10056)
 - 1.2.5.9 Draft alternative structures (12745)

1.2.5.10	Present recommendations to senior client executives (12746)	business (17666)
1.2.5.11	Adjust migration (12747)	1.3.4 Network for new business (12749)
1.2.6	Develop and set organizational goals (10042)	1.3.5 Obtain new business financing (12750)
1.2.6.1	Identify organizational goals (19953)	1.3.6 Structure contracts /milestones /accounting/tax (12751)
1.2.6.2	Establish baseline metrics (19954)	1.3.7 Arrange licensing (in/out) (12741)
1.2.6.3	Monitor performance against goals (19955)	1.3.8 Develop capitation programs (12742)
1.2.7	Formulate business unit strategies (10043)	1.3.9 Develop joint ventures (12743)
1.2.7.1	Analyze business unit strategies (19956)	1.3.10 Perform acquisitions (12744)
1.2.7.2	Identify core competency for each business unit (19957)	1.3.11 Develop strategic initiatives (10057)
1.2.7.3	Refine business unit strategies in support of company strategy (19958)	1.3.11.1 Identify strategic priorities (19975)
1.2.8	Develop customer experience strategy (19959)	1.3.11.2 Develop strategic initiatives based on business/customer value (19976)
1.2.8.1	Assess customer experience (19960)	1.3.11.3 Review with stakeholders (19977)
1.2.8.1.1	Identify and review customer touchpoints (19961)	1.3.12 Evaluate strategic initiatives (10058)
1.2.8.1.2	Assess customer experience across touchpoints (19962)	1.3.12.1 Determine business value for each strategic priority (19978)
1.2.8.1.3	Perform root cause analysis of problematic customer experiences (19963)	1.3.12.2 Determine the customer value for each strategic priority (19979)
1.2.8.2	Design customer experience (19964)	1.3.13 Select strategic initiatives (10059)
1.2.8.2.1	Define and manage personas (16612)	1.3.13.1 Prioritize strategic initiatives (19980)
1.2.8.2.2	Create customer journey maps (19965)	1.3.13.2 Communicate strategic initiatives to business units and stakeholders (19981)
1.2.8.2.3	Define single view of the customer for the organisation (19966)	1.3.14 Establish high-level measures (10060)
1.2.8.2.4	Define a vision for the customer experience (19967)	1.3.14.1 Identify business value drivers (19982)
1.2.8.2.5	Validate with customers (19968)	1.3.14.2 Establish baselines for business value drivers (19983)
1.2.8.2.6	Align experience with brand values and business strategies (19969)	1.3.14.3 Monitor performance against baselines (19984)
1.2.8.2.7	Develop content strategy (19970)	1.3.15 Execute strategic initiatives (19507)
1.2.8.3	Design customer experience support structure (19971)	1.4 Develop and maintain business models (20944)
1.2.8.3.1	Identify required capabilities (19972)	1.4.1 Develop business models (20945)
1.2.8.3.2	Identify impact on functional processes (19973)	1.4.1.1 Assemble business model information (20946)
1.2.8.4	Develop customer experience roadmap to develop and implement defined capabilities (19974)	1.4.1.2 Secure appropriate approvals (20947)
1.2.9	Communicate strategies internally and externally (18916)	1.4.1.3 Identify integration points with existing models (20948)
1.3 Execute and measure strategic initiatives (10016)		1.4.1.4 Adopt the business model (20949)
1.3.1	Develop Over The Counter (OTC)/generic business (12748)	1.4.2 Maintain business models (20950)
1.3.2	Develop healthcare services business (17665)	1.4.2.1 Establish business model maintenance parameters (20951)
1.3.3	Develop integrated technology/medical services	1.4.2.2 Accept business model feedback parameters (20952)
		1.4.2.3 Prioritize and manage incoming feedback (20953)
		1.4.2.4 Update existing models (20954)
		1.4.3 Establish business model governance (20955)

2.0 Develop and Manage Products and Services (10003)

2.1 Govern and manage product/service development program (19696)

- 2.1.1 Manage product and service portfolio (10061)
 - 2.1.1.1 Evaluate performance of existing products/services against market opportunities (10063)
 - 2.1.1.2 Confirm alignment of product/service concepts with business strategy (10066)
 - 2.1.1.3 Prioritize and select new product/service concepts (10074)
 - 2.1.1.4 Plan and develop cost and quality targets (10073)
 - 2.1.1.5 Specify development timing targets (10075)
 - 2.1.1.6 Plan for product/service offering modifications (10076)
- 2.1.2 Manage product and service life cycle (10067)
 - 2.1.2.1 Develop plan for new product/service development and introduction/launch (16824)
 - 2.1.2.2 Introduce new products/services (10077)
 - 2.1.2.3 Retire outdated products/services (10078)
 - 2.1.2.4 Identify and refine performance indicators (10079)
 - 2.1.2.5 Conduct post launch review (11423)
 - 2.1.2.5.1 Carry out post launch analytics to test the acceptability in the market (19646)
 - 2.1.2.5.2 Review market performance (11424)
 - 2.1.2.5.3 Review effectiveness of supply chain and distribution network (11425)
 - 2.1.2.5.4 Apply data and analytics to review supply chain methodologies (19647)
 - 2.1.2.5.5 Review quality and performance of the product/service (11426)
 - 2.1.2.5.6 Conduct financial review (11427)
 - 2.1.2.5.7 Conduct new product development process assessment (11428)
- 2.1.3 Manage patents, copyrights, and regulatory requirements (19985)
 - 2.1.3.1 Conduct mandatory and elective reviews (19941)
 - 2.1.3.2 Review infringement of patents and copyrights (16826)
 - 2.1.3.3 Determine patent and copyright needs (16827)
 - 2.1.3.4 Define product technical documentation management requirements (19697)
 - 2.1.3.5 Manage regulatory requirements (12771)
 - 2.1.3.5.1 Train employees on appropriate regulatory requirements (12772)
 - 2.1.3.5.2 Maintain records for regulatory agencies (12773)
 - 2.1.3.5.3 Manage regulatory submission life cycle (12776)
 - 2.1.3.5.4 File new product process with FDA

and receive regulatory approval (12774)

- 2.1.3.5.5 Publish the new product process (12775)

- 2.1.4 Manage product and service master data (11740)
 - 2.1.4.1 Manage materials master lists (11741)
 - 2.1.4.2 Manage bills of material (11742)
 - 2.1.4.3 Manage routings (11743)
 - 2.1.4.4 Manage specifications (11744)
 - 2.1.4.5 Manage drawings (11745)
 - 2.1.4.6 Manage product/material classification (11746)
 - 2.1.4.7 Develop and maintain quality/inspection documents (11747)
 - 2.1.4.8 Maintain process specification data (11748)
 - 2.1.4.9 Manage traceability data (11749)
 - 2.1.4.10 Review and approve data access requests (11750)

2.2 Discover Products (12752)

- 2.2.1 Manage research (12753)
 - 2.2.1.1 Identify targets (12754)
 - 2.2.1.2 Validate targets (12755)
 - 2.2.1.3 Develop assay (12756)
- 2.2.2 Perform research/ licensing (12757)
 - 2.2.2.1 Acquire and license research knowledge (12758)
 - 2.2.2.2 Conduct basic research (12759)
 - 2.2.2.3 Manage research technology/information (12760)
 - 2.2.2.4 Target basic research efforts (12761)

2.3 Generate and define new product/service ideas (19698)

- 2.3.1 Perform discovery research (10065)
 - 2.3.1.1 Identify new technologies (10070)
 - 2.3.1.2 Develop new technologies (10071)
 - 2.3.1.3 Assess feasibility of integrating new leading technologies into product/service concepts (10072)
- 2.3.2 Generate new product/service concepts (19669)
 - 2.3.2.1 Gather new product/service ideas and requirements (19986)
 - 2.3.2.2 Analyze new product/service ideas and requirements (19987)
 - 2.3.2.3 Evaluate new product/service inputs and requirements (19988)
 - 2.3.2.4 Formulate new product/service concepts (19989)
 - 2.3.2.5 Identify potential improvements to existing products and services (10068)
- 2.3.3 Define product/service development requirements (19990)
 - 2.3.3.1 Define product/service requirements (11331)
 - 2.3.3.1.1 Define basic functional

- requirements (19991)
 - 2.3.3.1.2 Derive interoperability requirements for products and services (16808)
 - 2.3.3.1.3 Derive safety requirements for products and services (16809)
 - 2.3.3.1.4 Derive security requirements for products and services (16810)
 - 2.3.3.1.5 Derive regulatory compliance requirements (16811)
 - 2.3.3.1.6 Derive requirements from industry standards (16812)
 - 2.3.3.1.7 Develop user experience requirements (19992)
 - 2.3.3.1.8 Derive 'services-as-a-product' offering (16814)
 - 2.3.3.2 Define post launch support model (16815)
 - 2.3.3.3 Identify product/service bundling opportunities (17389)
- 2.4 Develop products and services (10062)**
 - 2.4.1 Design and prototype products and services (19993)
 - 2.4.1.1 Assign resources to product/service project (10083)
 - 2.4.1.1.1 Identify requirements for product/service design/development partners (19994)
 - 2.4.1.2 Prepare high-level business case and technical assessment (10084)
 - 2.4.1.3 Develop product/service design specifications (10085)
 - 2.4.1.4 Develop user experience design specifications (16813)
 - 2.4.1.5 Provide warranty-related recommendations (16817)
 - 2.4.1.6 Document design specifications (10086)
 - 2.4.1.7 Conduct mandatory and elective external reviews (10087)
 - 2.4.1.8 Design products/services (19995)
 - 2.4.1.8.1 Design for manufacturing (16819)
 - 2.4.1.8.2 Design for product servicing (16820)
 - 2.4.1.8.3 Design for re-manufacturing (16821)
 - 2.4.1.8.4 Review product troubleshooting methodology (16822)
 - 2.4.1.8.5 Design and manage product data, design, and bill of materials (16818)
 - 2.4.1.8.6 Design for product upgrades (16823)
 - 2.4.1.9 Build prototypes/proof of concepts (10088)
 - 2.4.1.10 Develop and test prototype production and/or service delivery process (10098)
 - 2.4.1.11 Eliminate quality and reliability problems (10089)
 - 2.4.1.12 Conduct in-house product/service testing and evaluate feasibility (10090)
 - 2.4.1.13 Identify design/development performance indicators (10091)
 - 2.4.1.14 Collaborate on design with suppliers and external partners (10092)
 - 2.4.2 Test market for new or revised products and services (19996)
 - 2.4.2.1 Prepare detailed market study (10093)
 - 2.4.2.2 Conduct customer tests and interviews (10094)
 - 2.4.2.3 Finalize product/service characteristics and business cases (10095)
 - 2.4.2.4 Finalize technical requirements (10096)
 - 2.4.3 Prepare for production/service delivery (19997)
 - 2.4.3.1 Design and obtain necessary capabilities/materials and equipment (10099)
 - 2.4.3.2 Identify requirements for changes to manufacturing/delivery processes (10097)
 - 2.4.3.3 Complete and report large-scale clinical trials (12762)
 - 2.4.3.4 Request engineering/process change (11418)
 - 2.4.3.5 Install and validate production process or methodology (10100)
 - 2.4.3.5.1 Monitor initial production runs (11417)
 - 2.4.3.6 Validate launch procedures (19998)
 - 2.4.4 Compile and submit dossier (12763)
 - 2.4.4.1 Define regulatory strategy and target product profile (12764)
 - 2.4.4.2 Obtain scientific advice and engage regulators (12765)
 - 2.4.4.3 Plan the submission structure and its components (17667)
 - 2.4.4.4 Create standard backbone and component templates (17668)
 - 2.4.4.5 Assemble registration dossiers (12766)
 - 2.4.4.6 Standardize documentation (12767)
 - 2.4.4.7 Optimize submission process (12768)
 - 2.4.4.8 Introduce regulatory review (17669)
 - 2.4.4.9 Monitor speed of approvals (12769)
 - 2.4.4.10 Compile and submit registration dossiers (12770)

3.0 Market and Sell Products and Services (10004)

3.1 Understand markets, customers, and capabilities (10101)

- 3.1.1 Perform customer and market intelligence analysis (10106)
 - 3.1.1.1 Determine customer focus for research (17670)
 - 3.1.1.2 Conduct customer and market research (10108)
 - 3.1.1.2.1 Understand consumer needs and predict customer purchasing behavior (10114)
 - 3.1.1.3 Identify market segments (10109)
 - 3.1.1.3.1 Determine market share gain/loss (10115)
 - 3.1.1.4 Analyze market and industry trends (10110)
 - 3.1.1.5 Analyze competing organizations, competitive/substitute products/services (10111)
 - 3.1.1.6 Evaluate existing products/services (10112)
 - 3.1.1.7 Assess internal and external business environment (10113)
- 3.1.2 Evaluate and prioritize market opportunities (10107)
 - 3.1.2.1 Quantify market opportunities (10116)
 - 3.1.2.2 Determine target segments (10117)
 - 3.1.2.2.1 Identify under-served and saturated market segments (18941)
 - 3.1.2.3 Prioritize opportunities consistent with capabilities and overall business strategy (10118)
 - 3.1.2.4 Validate opportunities (10119)
 - 3.1.2.4.1 Test with customers/consumers (10120)
 - 3.1.2.4.2 Confirm internal capabilities (10121)

3.2 Develop marketing strategy (10102)

- 3.2.1 Define offering and customer value proposition (11168)
 - 3.2.1.1 Define customer focus for value proposition (17671)
 - 3.2.1.2 Define offering and positioning (11169)
 - 3.2.1.3 Develop value proposition including brand positioning for target segments (11170)
 - 3.2.1.4 Validate value proposition with target segments (11171)
 - 3.2.1.5 Develop new branding (11172)
- 3.2.2 Define pricing strategy (10123)
 - 3.2.2.1 Conduct pricing analysis (13169)
 - 3.2.2.2 Establish guidelines for applying pricing and discounting of products/services (10124)
 - 3.2.2.3 Establish pricing targets (19999)
 - 3.2.2.4 Approve pricing strategies/policies and targets (10125)
- 3.2.3 Define and manage channel strategy (20000)
 - 3.2.3.1 Determine channels to be supported (20001)
 - 3.2.3.2 Establish channel objectives (20002)
 - 3.2.3.3 Determine channel role and fit with target

segments (10127)

- 3.2.3.4 Select channels for target segments (10128)
- 3.2.3.5 Identify required channel capabilities (20003)
- 3.2.3.6 Evaluate channel attributes and potential partners (10126)
- 3.2.3.7 Orchestrate seamless customer experience across supported channels (20004)
 - 3.2.3.7.1 Define omni-channel strategy (16590)
 - 3.2.3.7.2 Define omni-channel requirements (16591)
 - 3.2.3.7.3 Develop omni-channel policies and procedures (16592)
- 3.2.3.8 Develop and manage execution roadmap (20005)
- 3.2.4 Analyze and manage channel performance (20006)
 - 3.2.4.1 Establish channel-specific metrics and targets (16573)
 - 3.2.4.2 Monitor and report performance (16574)
 - 3.2.4.3 Monitor and report events influencing factors (16575)
 - 3.2.4.4 Analyze performance (16500)
 - 3.2.4.5 Develop plan for improvements (16501)
- 3.2.5 Develop marketing communication strategy (16848)
 - 3.2.5.1 Develop customer communication calendar (16849)
 - 3.2.5.2 Define public relations (PR) strategy (16850)
 - 3.2.5.3 Define direct marketing strategy (16851)
 - 3.2.5.4 Define internal marketing communication strategy (16852)
 - 3.2.5.5 Identify new media for marketing communication (16853)
 - 3.2.5.6 Define new media communication strategy (16854)
 - 3.2.5.7 Define point of sale (POS) communication strategy (16855)
 - 3.2.5.8 Define communication guidelines and mechanisms (18627)
- 3.2.6 Design and manage customer loyalty program (18924)
 - 3.2.6.1 Define customer loyalty program (20007)
 - 3.2.6.2 Acquire members to customer loyalty program (18925)
 - 3.2.6.3 Build engagement and relationship with members (18926)
 - 3.2.6.4 Monitor customer loyalty program benefits to the enterprise and the customer (16633)
 - 3.2.6.5 Optimize loyalty program value to both the enterprise and the customer (18927)

3.3 Develop and manage marketing plans (20008)

- 3.3.1 Establish goals, objectives, and metrics for products/

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|----------|---|---|---|
| | services by channel/segment (10148) | 3.3.6.3 | Analyze customer purchase patterns (16615) |
| 3.3.2 | Establish marketing budgets (10149) | 3.3.6.4 | Develop business rules to provide personalized offers (16616) |
| 3.3.2.1 | Confirm marketing alignment to business strategy (10155) | 3.3.6.5 | Monitor effectiveness of personalized offers and adjust offers accordingly (16617) |
| 3.3.2.2 | Determine costs of marketing (10156) | 3.3.7 | Develop and manage packaging strategy (10154) |
| 3.3.2.3 | Create marketing budget (10157) | 3.3.7.1 | Plan packaging strategy (10178) |
| 3.3.2.4 | Determine projected ROI for marketing investment (17683) | 3.3.7.2 | Test packaging options (10179) |
| 3.3.3 | Develop and manage pricing (20593) | 3.3.7.3 | Execute packaging strategy (10180) |
| 3.3.3.1 | Understand resource requirements for each product/service and delivery channel/method (20009) | 3.3.7.4 | Refine packaging (10181) |
| 3.3.3.2 | Determine corporate incentives (18948) | 3.3.8 | Manage product marketing content (16629) |
| 3.3.3.3 | Determine pricing based on volume/unit forecast (10163) | 3.3.8.1 | Manage product images (16630) |
| 3.3.3.4 | Execute pricing plan (10164) | 3.3.8.2 | Manage product copy (18130) |
| 3.3.3.5 | Evaluate pricing performance (10165) | 3.4 Develop sales strategy (10103) | |
| 3.3.3.6 | Refine pricing as needed (10166) | 3.4.1 | Develop sales forecast (10129) |
| 3.3.3.7 | Implement promotional pricing programs (11495) | 3.4.1.1 | Gather current and historic order information (10134) |
| 3.3.3.8 | Implement other retail pricing programs (11496) | 3.4.1.2 | Analyze sales trends and patterns (10135) |
| 3.3.3.9 | Communicate and implement price changes (11497) | 3.4.1.3 | Generate sales forecast (10136) |
| 3.3.3.10 | Achieve regulatory approval for pricing (17684) | 3.4.1.4 | Analyze historical and planned promotions and events (10137) |
| 3.3.3.11 | Develop pricing schemes for managed care organizations (17685) | 3.4.1.5 | Analyze impact of external factors (12779) |
| 3.3.3.12 | Develop and execute pharmacoeconomics (12782) | 3.4.2 | Develop sales partner/alliance relationships (10130) |
| 3.3.4 | Develop and manage promotional activities (20010) | 3.4.2.1 | Identify alliance opportunities (10138) |
| 3.3.4.1 | Define promotional concepts and objectives (10167) | 3.4.2.2 | Design alliance programs and methods for selecting and managing relationships (10139) |
| 3.3.4.2 | Develop marketing messages (10159) | 3.4.2.3 | Select alliances (10140) |
| 3.3.4.3 | Define target audience (10160) | 3.4.2.4 | Develop trade customer trade strategy and customer objectives/targets (11465) |
| 3.3.4.4 | Plan and test promotional activities (10168) | 3.4.2.5 | Define trade programs and funding options (11521) |
| 3.3.4.5 | Execute promotional activities (10169) | 3.4.2.6 | Conduct planning activities for major trade customers (11466) |
| 3.3.4.6 | Evaluate promotional performance metrics (10170) | 3.4.2.7 | Develop partner and alliance management strategies (10141) |
| 3.3.4.7 | Refine promotional performance metrics (10171) | 3.4.2.8 | Establish partner and alliance management goals (10142) |
| 3.3.4.8 | Incorporate learning into future/planned consumer promotions (10172) | 3.4.2.9 | Establish partner and alliance agreements (18629) |
| 3.3.5 | Track customer management measures (10153) | 3.4.2.10 | Develop promotional and category management calendars (trade marketing calendars) (11522) |
| 3.3.5.1 | Determine customer lifetime value (10173) | 3.4.2.11 | Create strategic and tactical sales plans by customer (11523) |
| 3.3.5.2 | Analyze customer revenue trend (10174) | 3.4.2.12 | Communicate planning information to customer teams (11468) |
| 3.3.5.3 | Analyze customer attrition and retention rates (10175) | 3.4.3 | Establish overall sales budgets (10131) |
| 3.3.5.4 | Analyze customer metrics (10176) | 3.4.3.1 | Calculate product unit forecast (17681) |
| 3.3.5.5 | Revise customer strategies, objectives, and plans based on metrics (10177) | 3.4.3.2 | Calculate product market share (17682) |
| 3.3.6 | Analyze and respond to customer insight (16613) | 3.4.3.3 | Calculate product revenue (10143) |
| 3.3.6.1 | Monitor and respond to social media activity (16627) | 3.4.3.4 | Determine variable costs (10144) |
| 3.3.6.2 | Analyze customer website activity (16614) | 3.4.3.5 | Determine overhead and fixed costs (10145) |
| | | 3.4.3.6 | Calculate net profit (10146) |

3.4.3.7	Create budget (10147)	3.5.4.9	Develop pricing and scheduling estimates (11788)
3.4.4	Establish sales goals and measures (10132)	3.5.4.10	Conduct profitability analysis (11789)
3.4.5	Establish customer management measures (10133)	3.5.4.11	Manage internal reviews (20016)
3.5 Develop and manage sales plans (10105)		3.5.4.12	Manage internal approvals (20017)
3.5.1	Manage leads/opportunities (20594)	3.5.4.13	Submit/present bid/proposal/quote to customer (11790)
3.5.1.1	Identify potential customers (10188)	3.5.4.14	Revise bid/proposal/quote (20018)
3.5.1.2	Identify/receive leads/opportunities (10189)	3.5.4.15	Manage notification outcome (11793)
3.5.1.3	Validate and qualify leads/opportunities (18115)	3.5.5	Manage sales orders (10185)
3.5.1.4	Match opportunities to business strategy (11773)	3.5.5.1	Accept and validate sales orders (10194)
3.5.1.5	Develop opportunity win plans (18116)	3.5.5.2	Collect and maintain account information (10195)
3.5.1.6	Manage opportunity pipeline (20011)	3.5.5.2.1	Administer key account details (10201)
3.5.1.7	Determine sales resource allocation (10209)	3.5.5.2.2	Retrieve full customer details (10202)
3.5.1.8	Manage master territory master data (17694)	3.5.5.2.3	Modify involved party details (10203)
3.5.1.9	Manage roster master data (17695)	3.5.5.2.4	Record address details (10204)
3.5.1.10	Manage alignment of product and master territory master data (17696)	3.5.5.2.5	Record contact details (10205)
3.5.1.11	Manage customer sales calls (10184)	3.5.5.2.6	Record key customer communication profile details (10206)
3.5.1.11.1	Perform sales calls (10190)	3.5.5.2.7	Review involved party information (10207)
3.5.1.11.2	Perform pre-sales activities (10191)	3.5.5.2.8	Terminate involved party information (10208)
3.5.1.11.3	Manage customer meetings/workshops (20012)	3.5.5.3	Determine availability (10196)
3.5.1.11.4	Close the sale (10192)	3.5.5.4	Determine fulfillment process (10197)
3.5.1.11.5	Record outcome of sales process (10193)	3.5.5.5	Enter orders into system (10198)
3.5.2	Bid and proposal development (17686)	3.5.5.6	Identify/perform cross-sell/up-sell activity (17404)
3.5.3	Manage customers and accounts (10183)	3.5.5.7	Process back orders and updates (10199)
3.5.3.1	Select key customers/accounts (20013)	3.5.5.8	Handle sales order inquiries including post-order fulfillment transactions (10200)
3.5.3.2	Develop sales/key account plan (11173)	3.5.6	Manage sales partners and alliances (10187)
3.5.3.3	Manage sales/key account plan (20014)	3.5.6.1	Provide sales and product/service training to sales partners/alliances (10211)
3.5.3.4	Manage customer relationships (11174)	3.5.6.1.1	Provide certification enablement training (20019)
3.5.3.5	Manage customer master data (14208)	3.5.6.1.2	Manage certifications and skills (20020)
3.5.3.5.1	Collect and merge internal and third-party customer information (16598)	3.5.6.1.3	Provide support to partners/alliances (20021)
3.5.3.5.2	De-duplicate customer data (16599)	3.5.6.2	Provide marketing materials to sales partners/alliances (18641)
3.5.4	Develop and manage sales proposals, bids, and quotes (11779)	3.5.6.3	Evaluate partner/alliance results (10214)
3.5.4.1	Receive Request For Proposal (RFP)/Request For Quote (RFQ) (11781)	3.5.6.4	Manage sales partner/alliance master data (14209)
3.5.4.2	Refine customer requirements (11780)		
3.5.4.3	Review RFP/RFQ request (11782)		
3.5.4.4	Perform competitive analysis (11783)		
3.5.4.5	Validate with strategy/business plans (11784)		
3.5.4.6	Understand customer business and requirements (11785)		
3.5.4.7	Develop solution and delivery approach (20015)		
3.5.4.8	Identify staffing requirements (11787)		

4.0 Deliver Physical Products (20022)

4.1 Plan for and align supply chain resources (10215)

- 4.1.1 Develop production and materials strategies (10221)
 - 4.1.1.1 Define manufacturing goals (10229)
 - 4.1.1.2 Define labor and materials policies (10230)
 - 4.1.1.3 Define outsourcing policies (10231)
 - 4.1.1.4 Define capital expense policies (10232)
 - 4.1.1.5 Define capacities (10233)
 - 4.1.1.6 Define production network and supply constraints (10234)
 - 4.1.1.7 Define production process (14193)
 - 4.1.1.8 Define standard operating procedures (19551)
 - 4.1.1.9 Define production workplace layout and infrastructure (14194)
- 4.1.2 Manage demand for products (10222)
 - 4.1.2.1 Develop baseline demand forecasts (10235)
 - 4.1.2.2 Collaborate demand with customers (10236)
 - 4.1.2.3 Develop demand consensus forecast (10237)
 - 4.1.2.4 Determine available to promise (10238)
 - 4.1.2.5 Monitor activity against demand forecast and revise forecast (10239)
 - 4.1.2.6 Evaluate and revise demand forecasting approach (10240)
 - 4.1.2.7 Measure demand forecast accuracy (10241)
- 4.1.3 Create materials plan (10223)
 - 4.1.3.1 Create unconstrained plan (10242)
 - 4.1.3.2 Collaborate with supplier and contract manufacturers (10243)
 - 4.1.3.3 Identify critical materials and supplier capacity (10244)
 - 4.1.3.4 Monitor material specifications (10245)
 - 4.1.3.5 Generate constrained plan (10246)
 - 4.1.3.6 Define production balance and control (14196)
- 4.1.4 Create and manage master production schedule (10224)
 - 4.1.4.1 Model production network to enable simulation and optimization (20023)
 - 4.1.4.2 Create master production schedule (20024)
 - 4.1.4.3 Maintain master production schedule (17041)
- 4.1.5 Plan distribution requirements (17042)
 - 4.1.5.1 Maintain master data (10252)
 - 4.1.5.2 Determine finished goods inventory requirements at destination (10253)
 - 4.1.5.3 Determine product storage facility requirements (19555)
 - 4.1.5.4 Calculate requirements at destination (10254)
 - 4.1.5.5 Calculate consolidation at source (10255)
 - 4.1.5.6 Manage collaborative replenishment planning (10256)
 - 4.1.5.7 Calculate and optimize destination dispatch plan (10258)

- 4.1.5.8 Manage dispatch plan attainment (10259)
- 4.1.5.9 Calculate and optimize destination load plans (10260)
- 4.1.5.10 Manage partner load plan (10261)
- 4.1.5.11 Manage cost of supply (10262)
- 4.1.5.12 Manage capacity utilization (10263)
- 4.1.6 Establish distribution planning constraints (10226)
 - 4.1.6.1 Establish distribution center layout constraints (10267)
 - 4.1.6.2 Establish inventory management constraints (10268)
 - 4.1.6.3 Establish transportation management constraints (10269)
 - 4.1.6.4 Establish storage management constraints (19558)
- 4.1.7 Review distribution planning policies (10227)
 - 4.1.7.1 Review distribution network (10264)
 - 4.1.7.2 Establish sourcing relationships (10265)
 - 4.1.7.3 Establish dynamic deployment policies (10266)
- 4.1.8 Develop quality standards and procedures (10368)
 - 4.1.8.1 Establish quality targets (10371)
 - 4.1.8.2 Develop standard testing procedures (10372)
 - 4.1.8.3 Communicate quality specifications (10373)

4.2 Procure materials and services (10216)

- 4.2.1 Provide sourcing governance and perform category management (10277)
 - 4.2.1.1 Develop procurement plan (10281)
 - 4.2.1.2 Clarify purchasing requirements (10282)
 - 4.2.1.3 Establish materials management contingency plans (10283)
 - 4.2.1.4 Match needs to supply capabilities (10284)
 - 4.2.1.5 Analyze organization's spend profile (10285)
 - 4.2.1.6 Seek opportunities to improve efficiency and value (10286)
 - 4.2.1.7 Collaborate with suppliers to identify sourcing opportunities (10287)
- 4.2.2 Develop sourcing and category management strategies (20973)
- 4.2.3 Select suppliers and develop/maintain contracts (10278)
 - 4.2.3.1 Select suppliers (10288)
 - 4.2.3.2 Certify and validate suppliers (10289)
 - 4.2.3.3 Negotiate and establish contracts (10290)
 - 4.2.3.4 Manage contracts (10291)
- 4.2.4 Order materials and services (10279)
 - 4.2.4.1 Process/Review requisitions (10292)
 - 4.2.4.2 Approve requisitions (10293)
 - 4.2.4.3 Solicit/Track vendor quotes (10294)
 - 4.2.4.4 Create/Distribute purchase orders (10295)
 - 4.2.4.5 Expedite orders and satisfy inquiries (10296)

- 4.2.4.6 Reconcile purchase orders (10297)
- 4.2.4.7 Research/Resolve order exceptions (10298)
- 4.2.5 Manage suppliers (10280)
 - 4.2.5.1 Monitor/Manage supplier information (10299)
 - 4.2.5.2 Prepare/Analyze procurement and vendor performance (10300)
 - 4.2.5.3 Support inventory and production processes (10301)
 - 4.2.5.4 Monitor quality of product delivered (10302)
- 4.3 Produce/Assemble/Test product (10217)**
 - 4.3.1 Schedule production (10303)
 - 4.3.1.1 Model and simulate plant (19563)
 - 4.3.1.2 Generate line level plan (10306)
 - 4.3.1.3 Generate detailed schedule (10307)
 - 4.3.1.4 Schedule production orders and create lots (10308)
 - 4.3.1.5 Schedule preventive (planned) maintenance (preventive maintenance orders) (10315)
 - 4.3.1.6 Schedule requested (unplanned) maintenance (work order cycle) (10316)
 - 4.3.1.7 Release production orders and create lots (10309)
 - 4.3.1.8 Develop campaign schedule (12805)
 - 4.3.1.9 Develop production schedule (12806)
 - 4.3.2 Produce/Assemble product (10304)
 - 4.3.2.1 Manage raw material inventory (10310)
 - 4.3.2.2 Execute detailed line schedule (10311)
 - 4.3.2.3 Report maintenance issues (10319)
 - 4.3.2.4 Rerun defective items (10313)
 - 4.3.2.5 Monitor and optimize production process (19566)
 - 4.3.2.5.1 Automate and control plant (19567)
 - 4.3.2.5.2 Perform advanced process control (19568)
 - 4.3.2.5.3 Perform real-time optimization (19569)
 - 4.3.2.5.4 Manage plant alarms and alerts (19570)
 - 4.3.2.6 Assess production performance (10314)
 - 4.3.2.7 Process order release (12807)
 - 4.3.2.8 Release to EBR (12808)
 - 4.3.2.9 Execute EBR reporting (12809)
 - 4.3.3 Test Product (12810)
 - 4.3.3.1 Test and release bulk (12811)
 - 4.3.3.2 Test and release intermediate product (12812)
 - 4.3.3.3 Test and release finished packaged products (12813)
- 4.4 Manage Quality Assurance/Quality Control (12826)**
 - 4.4.1 Develop and maintain quality management system (12827)
 - 4.4.2 Develop quality standards and sampling procedures (12828)
 - 4.4.2.1 Receive sample batch quantity (12829)
 - 4.4.2.2 Develop standard testing procedures for all materials (12830)
 - 4.4.2.3 Communicate quality assurance specifications (12831)
 - 4.4.3 Conduct stability and validating tests and maintain test results (12832)
 - 4.4.3.1 Perform testing using the standard testing procedure (12833)
 - 4.4.3.2 Record test results (12834)
 - 4.4.4 Maintain batch records and manage lot traceability (12835)
 - 4.4.4.1 Determine batch numbering system (12836)
 - 4.4.4.2 Perform goods issue (12837)
 - 4.4.4.3 Determine batch usage (12838)
 - 4.4.5 Maintain production records and manage lot traceability (10370)
 - 4.4.5.1 Determine lot numbering system (10376)
 - 4.4.5.2 Determine lot use (10377)
- 4.5 Develop Sample Program and Requirements (17698)**
 - 4.5.1 Develop Sample Delivery Tracking Program (17699)
 - 4.5.1.1 Define requirements and business procedures for sample tracking, distribution, feedback, and reporting (17700)
 - 4.5.1.2 Define systems requirements for sample tracking (17701)
 - 4.5.1.3 Define systems requirements for sample distribution (17702)
 - 4.5.1.4 Define systems requirements for feedback and reporting on sample distribution (17703)
 - 4.5.1.5 Monitor sample stock levels (17704)
- 4.6 Manage logistics and warehousing (10219)**
 - 4.6.1 Provide logistics governance (10338)
 - 4.6.1.1 Translate customer service requirements into logistics requirements (10343)
 - 4.6.1.2 Design logistics network (10344)
 - 4.6.1.3 Communicate outsourcing needs (10345)
 - 4.6.1.4 Develop and maintain delivery service policy (10346)
 - 4.6.1.5 Optimize transportation schedules and costs (10347)
 - 4.6.1.6 Define key performance measures (10348)
 - 4.6.1.7 Define reverse logistics strategy (16905)
 - 4.6.2 Plan and manage inbound material flow (20936)
 - 4.6.2.1 Plan inbound material receipts (10349)
 - 4.6.2.2 Manage inbound material flow (10350)
 - 4.6.2.3 Monitor inbound delivery performance (10351)
 - 4.6.2.4 Manage flow of returned products (10352)
 - 4.6.2.5 Control quality of returned parts (12708)
 - 4.6.2.6 Salvage or repair returned products (20109)
 - 4.6.2.6.1 Perform salvage activities (10366)
 - 4.6.2.6.2 Manage repair/refurbishment and return to customer/stock (14195)
 - 4.6.3 Operate warehousing (10340)

4.6.3.1	Track inventory deployment (10353)	(10359)	
4.6.3.2	Receive, inspect, and store inbound deliveries (10354)	4.6.3.8	Manage warehouse transfers (20957)
4.6.3.3	Track product availability (10355)	4.6.4	Operate outbound transportation (10341)
4.6.3.4	Pick, pack, and ship product for delivery (10356)	4.6.4.1	Plan, transport, and deliver outbound product (10360)
4.6.3.5	Track inventory accuracy (10357)	4.6.4.2	Track carrier delivery performance (10361)
4.6.3.6	Track third-party logistics storage and shipping performance (10358)	4.6.4.3	Manage transportation fleet (10362)
4.6.3.7	Manage physical finished goods inventory	4.6.4.4	Process and audit carrier invoices and documents (10363)

5.0 Deliver Service (20025)

5.1 Establish service delivery governance and strategies (20026)

- 5.1.1 Establish service delivery governance (20027)
 - 5.1.1.1 Set up and maintain service delivery governance and management system (20028)
 - 5.1.1.2 Manage service delivery performance (20029)
 - 5.1.1.3 Manage service delivery development and direction (20030)
 - 5.1.1.4 Solicit feedback from customer on service delivery satisfaction (20031)
- 5.1.2 Develop service delivery strategies (20032)
 - 5.1.2.1 Define service delivery goals (20033)
 - 5.1.2.2 Define labor policies (20034)
 - 5.1.2.3 Evaluate resource availability (20035)
 - 5.1.2.4 Define service delivery network and supply constraints (20036)
 - 5.1.2.5 Define service delivery process (20037)
 - 5.1.2.6 Review and validate service delivery procedures (20038)
 - 5.1.2.7 Define service delivery workplace layout and infrastructure (20039)

5.2 Manage service delivery resources (20040)

- 5.2.1 Manage service delivery resource demand (20041)
 - 5.2.1.1 Monitor pipeline (20042)
 - 5.2.1.2 Develop baseline forecasts (20043)
 - 5.2.1.3 Collaborate with customers (20044)
 - 5.2.1.4 Develop consensus forecast (20045)
 - 5.2.1.5 Determine availability of skills to deliver on current and forecast customer orders (20046)
 - 5.2.1.6 Monitor activity against forecast and revise forecast (20047)
 - 5.2.1.7 Evaluate and revise forecasting approach (20048)
 - 5.2.1.8 Measure forecast accuracy (20049)
- 5.2.2 Create and manage resource plan (20050)
 - 5.2.2.1 Define and manage skills taxonomy (20051)
 - 5.2.2.2 Create resource plan (20052)
 - 5.2.2.3 Match resource demand with capacity, skills, and capabilities (20053)
 - 5.2.2.4 Collaborate with suppliers and partners to supplement skills and capabilities (20054)
 - 5.2.2.5 Identify critical resources and supplier capacity (20055)

- 5.2.2.6 Monitor and manage resource capacity and availability (20056)

5.2.3 Enable service delivery resources (12127)

- 5.2.3.1 Develop service delivery training plan (12128)
- 5.2.3.2 Develop training materials (12129)
- 5.2.3.3 Manage training schedule (12131)
- 5.2.3.4 Deliver operations training (12132)
- 5.2.3.5 Deliver technical training (12133)
- 5.2.3.6 Perform skill and capability testing (20057)
- 5.2.3.7 Evaluate training effectiveness (12135)

5.3 Deliver service to customer (20058)

- 5.3.1 Initiate service delivery (20059)
 - 5.3.1.1 Review contract and agreed terms (20060)
 - 5.3.1.2 Understand customer requirements and define refine approach (20061)
 - 5.3.1.3 Modify/revise and approve project plan (20062)
 - 5.3.1.4 Review customer business objectives (20063)
 - 5.3.1.5 Confirm environmental readiness (20064)
 - 5.3.1.6 Identify, select, and assign resources (20065)
 - 5.3.1.6.1 Establish people objectives (20066)
 - 5.3.1.6.2 Establish engagement rules (20067)
 - 5.3.1.7 Plan for service delivery (20068)
- 5.3.2 Execute service delivery (20069)
 - 5.3.2.1 Analyze environment and customer needs (20070)
 - 5.3.2.2 Define solution (20071)
 - 5.3.2.3 Validate solution (20072)
 - 5.3.2.4 Identify changes (20073)
 - 5.3.2.5 Obtain approval to proceed (20074)
 - 5.3.2.6 Make build/buy solution (20075)
 - 5.3.2.7 Deploy solution (20076)
- 5.3.3 Complete service delivery (20077)
 - 5.3.3.1 Conduct service delivery/project review and evaluate success (20078)
 - 5.3.3.2 Complete/finalize financial management activities (20079)
 - 5.3.3.3 Confirm delivery according to contract terms (20080)
 - 5.3.3.4 Release resources (20081)
 - 5.3.3.5 Manage service delivery completion (20082)
 - 5.3.3.6 Harvest knowledge (20083)
 - 5.3.3.7 Archive records and update systems (20084)

6.0 Manage Customer Service (20592)

6.1 Develop customer care/customer service strategy (10378)

- 6.1.1 Define customer service requirements across the enterprise (20086)
- 6.1.2 Define customer service experience (20087)
- 6.1.3 Define and manage customer service channel strategy (20088)
- 6.1.4 Define customer service policies and procedures (10382)
- 6.1.5 Establish target service level for each customer segment (10383)
- 6.1.6 Establish and manage plans to comply with HIPAA and other customer regulations (12839)
- 6.1.7 Define warranty offering (20089)
 - 6.1.7.1 Determine and document warranty policies (16893)
 - 6.1.7.2 Create and manage warranty rules/claim codes for products (16890)
 - 6.1.7.3 Agree on warranty responsibilities with suppliers (20090)
 - 6.1.7.4 Define warranty related offerings for customers (20091)
 - 6.1.7.5 Communicate warranty policies and offerings (12673)
- 6.1.8 Develop recall strategy (20092)

6.2 Plan and manage customer service contacts (10379)

- 6.2.1 Plan and manage customer service work force (10387)
 - 6.2.1.1 Forecast volume of customer service contacts (10390)
 - 6.2.1.2 Schedule customer service work force (10391)
 - 6.2.1.3 Track work force utilization (10392)
 - 6.2.1.4 Monitor and evaluate quality of customer interactions with customer service representatives (10393)
- 6.2.2 Manage customer service problems, requests, and inquiries (10388)
 - 6.2.2.1 Receive customer problems, requests, and inquiries (10394)
 - 6.2.2.2 Analyze problems, requests, and inquiries (13482)
 - 6.2.2.3 Resolve customer problems, requests, and inquiries (10395)
 - 6.2.2.4 Respond to customer problems, requests, and inquiries (10396)
 - 6.2.2.5 Identify and capture upsell/cross-sell opportunities (16928)
 - 6.2.2.6 Deliver opportunity to sales team (16937)
- 6.2.3 Manage customer complaints (10389)
 - 6.2.3.1 Receive customer complaints (10397)
 - 6.2.3.2 Route customer customer complaints (10398)
 - 6.2.3.3 Resolve customer complaints (10399)
 - 6.2.3.4 Respond to customer customer

complaints (10400)

- 6.2.3.5 Analyze customer complaints and response/redressal (19072)
- 6.2.4 Report incidents, adverse events, and Corrective Action Preventive Action (CAPA) (12840)
 - 6.2.4.1 Identify incidents and adverse events (12841)
 - 6.2.4.2 Investigate incidents and adverse events (12842)
 - 6.2.4.3 Resolve incidents and adverse events (12843)
 - 6.2.4.4 Report Corrective Action Preventive Action (CAPA) (12844)
 - 6.2.4.5 Capture and report adverse events (17705)
 - 6.2.4.6 Perform and report trending analytics (12845)
- 6.2.5 Manage medical inquiries (12846)
 - 6.2.5.1 Receive medical inquiry (12847)
 - 6.2.5.2 Assign medical inquiry (12848)
 - 6.2.5.3 Track medical inquiry (12849)
 - 6.2.5.4 Respond to medical inquiry (12850)
- 6.2.6 Authorize and manage product returns (12851)
 - 6.2.6.1 Receive return request (12852)
 - 6.2.6.2 Authorize return (12853)
 - 6.2.6.3 Submit return authorization to customer (12854)
 - 6.2.6.4 Verify receipt of return goods (12855)

6.3 Service products after sales (12658)

- 6.3.1 Register products (20605)
- 6.3.2 Process warranty claims (12669)
 - 6.3.2.1 Receive warranty claim (20096)
 - 6.3.2.2 Validate warranty claim (12671)
 - 6.3.2.2.3 Investigate warranty issues (20097)
 - 6.3.2.2.3.1 Define issue (20098)
 - 6.3.2.2.3.2 Schedule field service (12677)
 - 6.3.2.2.3.3 Request and receive defective part (12678)
 - 6.3.2.2.3.4 Investigate issue/perform root cause analysis (20099)
 - 6.3.2.2.3.5 Receive investigation result/recommendation for corrective action (20100)
 - 6.3.2.4 Determine responsible party (20101)
 - 6.3.2.5 Manage pre-authorizations (20102)
 - 6.3.2.6 Approve or reject warranty claim (12668)
 - 6.3.2.7 Notify originator of approve/reject decision (20103)
 - 6.3.2.8 Authorize payment (20104)
 - 6.3.2.9 Close claim (20105)
 - 6.3.2.10 Reconcile warranty transaction disposition (12667)
- 6.3.3 Manage supplier recovery (20106)
 - 6.3.3.1 Create supplier recovery claims (20107)

6.3.3.2	Negotiate recoveries with suppliers (20108)	requests, and inquiries handling (10401)
6.3.4	Service products (10218)	6.5.1.1 Solicit customer feedback on customer service experience (11687)
6.3.4.1	Confirm specific service requirements for individual customer (10320)	6.5.1.2 Analyze customer service data and identify improvement opportunities (11688)
6.3.4.1.1	Process customer request (10324)	6.5.1.3 Provide customer feedback to product management on customer service experience (18126)
6.3.4.1.2	Create customer profile (10325)	6.5.2 Measure customer satisfaction with customer- complaint handling and resolution (10402)
6.3.4.1.3	Generate service order (10326)	6.5.2.1 Solicit customer feedback on complaint handling and resolution (11236)
6.3.4.2	Identify and schedule resources to meet service requirements (10321)	6.5.2.2 Analyze customer complaint data and identify improvement opportunities (11237)
6.3.4.2.1	Create resourcing plan and schedule (10327)	6.5.2.3 Identify common customer complaints (11689)
6.3.4.2.2	Create service order fulfillment schedule (10328)	6.5.3 Measure customer satisfaction with products and services (10403)
6.3.4.3	Provide service to specific customers (10322)	6.5.3.1 Gather and solicit post-sale customer feedback on products and services (11238)
6.3.4.3.1	Organize daily service order fulfillment schedule (10330)	6.5.3.2 Solicit post-sale customer feedback on ad effectiveness (11239)
6.3.4.3.2	Execute product repair (10331)	6.5.3.3 Solicit customer feedback on cross-channel experience (20117)
6.3.4.3.3	Manage service order fulfillment (10332)	6.5.3.4 Analyze product and service satisfaction data and identify improvement opportunities (11240)
6.3.4.4	Ensure quality of service (10323)	6.5.3.5 Provide feedback and insights to appropriate teams (product design/development, marketing, manufacturing) (11241)
6.3.4.4.1	Identify completed service orders for feedback (10334)	6.5.3.6 Manage post marketing clinical trials (12856)
6.3.4.4.2	Identify incomplete service orders and service failures (10335)	6.5.4 Evaluate and manage warranty performance (12672)
6.3.4.4.3	Solicit customer feedback on services delivered (10336)	6.5.4.1 Measure customer satisfaction with warranty handling and resolution (20118)
6.3.4.4.4	Process customer feedback on services delivered (10337)	6.5.4.2 Monitor and report on warranty management metrics (12676)
6.4	Manage product recalls and regulatory audits (20110)	6.5.4.3 Identify improvement opportunities (20119)
6.4.1	Initiate recall (20111)	6.5.4.4 Identify opportunities to eliminate warranty waste (12674)
6.4.2	Assess the likelihood and consequences of occurrence of any hazards (20112)	6.5.4.5 Investigate fraudulent claims (20120)
6.4.3	Manage recall related communications (20113)	6.5.5 Evaluate recall performance (20121)
6.4.4	Submit regulatory reports (20114)	
6.4.5	Monitor and audit recall effectiveness (20115)	
6.4.6	Manage recall termination (20116)	
6.5	Evaluate customer service operations and customer satisfacion (20595)	
6.5.1	Measure customer satisfaction with customer problems,	

7.0 Develop and Manage Human Capital (10007)

7.1 Develop and manage human resources planning, policies, and strategies (17043)

- 7.1.1 Develop human resources strategy (20958)
 - 7.1.1.1 Identify strategic HR needs (10418)
 - 7.1.1.2 Define HR and business function roles and accountability (10419)
 - 7.1.1.3 Determine HR costs (10420)
 - 7.1.1.4 Establish HR measures (10421)
 - 7.1.1.5 Communicate HR strategies (10422)
 - 7.1.1.6 Develop strategy for HR systems/technologies/tools (10432)
 - 7.1.1.7 Manage employer branding (20606)
- 7.1.2 Develop and implement workforce strategy and policies (17045)
 - 7.1.2.1 Gather skill requirements according to corporate strategy and market environment (10423)
 - 7.1.2.2 Plan employee resourcing requirements per business unit/organization (10424)
 - 7.1.2.3 Develop compensation plan (10425)
 - 7.1.2.3.1 Establish incentive plan (10210)
 - 7.1.2.4 Develop succession plan (10426)
 - 7.1.2.5 Develop high performers/leadership programs (16938)
 - 7.1.2.6 Develop employee diversity plan (10427)
 - 7.1.2.7 Develop training program (11622)
 - 7.1.2.8 Develop recruitment program (11623)
 - 7.1.2.9 Develop other HR programs (10428)
 - 7.1.2.10 Develop HR policies (10429)
 - 7.1.2.11 Administer HR policies (10430)
 - 7.1.2.12 Plan employee benefits (10431)
 - 7.1.2.13 Develop workforce strategy models (10433)
 - 7.1.2.14 Implement workforce strategy models (20122)
- 7.1.3 Monitor and update strategy, plans, and policies (10417)
 - 7.1.3.1 Measure realization of objectives (10434)
 - 7.1.3.2 Measure contribution to business strategy (10435)
 - 7.1.3.3 Communicate plans and provide updates to stakeholders (10436)
 - 7.1.3.4 Review and revise HR plans (10438)
- 7.1.4 Develop competency management models (17046)

7.2 Recruit, source, and select employees (10410)

- 7.2.1 Manage employee requisitions (10439)
 - 7.2.1.1 Align staffing plan to work force plan and business unit strategies/resource needs (10445)
 - 7.2.1.2 Develop and maintain job descriptions (10447)
 - 7.2.1.3 Open job requisitions (10446)
 - 7.2.1.4 Post job requisitions (10448)
 - 7.2.1.5 Modify job requisitions (10450)
 - 7.2.1.6 Notify hiring manager (10451)

- 7.2.1.7 Manage requisition dates (10452)
- 7.2.2 Recruit/Source candidates (10440)
 - 7.2.2.1 Determine recruitment methods and channels (10453)
 - 7.2.2.2 Perform recruiting activities/events (10454)
 - 7.2.2.3 Manage recruitment vendors (10455)
 - 7.2.2.4 Manage employee referral programs (17047)
 - 7.2.2.5 Manage recruitment channels (17048)
- 7.2.3 Screen and select candidates (20123)
 - 7.2.3.1 Identify and deploy candidate selection tools (10456)
 - 7.2.3.2 Interview candidates (10457)
 - 7.2.3.3 Test candidates (10458)
 - 7.2.3.4 Select and reject candidates (10459)
- 7.2.4 Manage new hire/re-hire (10443)
 - 7.2.4.1 Draw up and make offer (10463)
 - 7.2.4.2 Negotiate offer (10464)
 - 7.2.4.3 Hire candidate (10465)
- 7.2.5 Manage applicant information (10444)
 - 7.2.5.1 Obtain candidate background information (10460)
 - 7.2.5.2 Create applicant record (10466)
 - 7.2.5.3 Manage/track applicant data (10467)
 - 7.2.5.3.1 Complete position classification and level of experience (20124)
 - 7.2.5.4 Archive and retain records of non-hires (10468)

7.3 Manage employee on-boarding, development, and training (20599)

- 7.3.1 Manage employee orientation and deployment (10469)
 - 7.3.1.1 Create/maintain employee on-boarding program (10474)
 - 7.3.1.1.1 Develop employee induction program (10477)
 - 7.3.1.1.2 Maintain/Update employee induction program (10478)
 - 7.3.1.2 Evaluate the effectiveness of the employee on-boarding program (11243)
 - 7.3.1.3 Execute on-boarding program (17050)
- 7.3.2 Manage employee performance (10470)
 - 7.3.2.1 Define employee performance objectives (10479)
 - 7.3.2.2 Review, appraise, and manage employee performance (10480)
 - 7.3.2.3 Evaluate and review performance program (10481)
- 7.3.3 Manage employee development (10472)
 - 7.3.3.1 Define employee development guidelines (10487)
 - 7.3.3.2 Develop employee career plans and career paths (10488)
 - 7.3.3.3 Manage employee skill and competency development (17051)

- 7.3.4 Develop and train employees (10473)
 - 7.3.4.1 Align employee with organization development needs (10490)
 - 7.3.4.2 Define employee competencies (16940)
 - 7.3.4.3 Align learning programs with competencies (10491)
 - 7.3.4.4 Establish training needs by analysis of required and available skills (10492)
 - 7.3.4.5 Develop, conduct, and manage employee and/or management training programs (10493)
 - 7.3.4.6 Manage examinations and certifications (20125)
 - 7.3.4.6.1 Liaise with external certification authorities (20126)
 - 7.3.4.6.2 Administer certification tests (20127)
 - 7.3.4.6.3 Appraise experience qualifications (20128)
 - 7.3.4.6.4 Administer certificate issue and maintenance (20129)

7.4 Manage employee relations (17052)

- 7.4.1 Manage labor relations (10483)
- 7.4.2 Manage collective bargaining process (10484)
- 7.4.3 Manage labor management partnerships (10485)
- 7.4.4 Manage employee grievances (10531)

7.5 Reward and retain employees (10412)

- 7.5.1 Develop and manage reward, recognition, and motivation programs (10494)
 - 7.5.1.1 Develop salary/compensation structure and plan (10498)
 - 7.5.1.2 Develop benefits and rewards plan (10499)
 - 7.5.1.3 Perform competitive analysis of benefits and rewards (10500)
 - 7.5.1.4 Identify compensation requirements based on financial, benefits, and HR policies (10501)
 - 7.5.1.5 Administer compensation and rewards to employees (10502)
 - 7.5.1.6 Reward and motivate employees (10503)
- 7.5.2 Manage and administer benefits (10495)
 - 7.5.2.1 Deliver employee benefits program (10504)
 - 7.5.2.2 Administer benefit enrollment (10505)
 - 7.5.2.3 Process claims (10506)
 - 7.5.2.4 Perform benefit reconciliation (10507)

- 7.5.3 Manage employee assistance and retention (10496)
 - 7.5.3.1 Deliver programs to support work/life balance for employees (10508)
 - 7.5.3.2 Develop family support systems (10509)
 - 7.5.3.3 Review retention and motivation indicators (10510)
 - 7.5.3.4 Review compensation plan (10511)
- 7.5.4 Administer payroll (10497)

7.6 Redeploy and retire employees (10413)

- 7.6.1 Manage promotion and demotion process (10512)
- 7.6.2 Manage separation (10513)
- 7.6.3 Manage retirement (10514)
- 7.6.4 Manage leave of absence (10515)
- 7.6.5 Develop and implement employee outplacement (10516)
- 7.6.6 Manage workforce scheduling (20132)
 - 7.6.6.1 Receive required resources/skills and capabilities (20133)
 - 7.6.6.2 Manage resource deployment (10517)
- 7.6.7 Relocate employees and manage assignments (17055)
 - 7.6.7.1 Manage expatriates (10520)

7.7 Manage employee information and analytics (17056)

- 7.7.1 Manage reporting processes (10522)
- 7.7.2 Manage employee inquiry process (10523)
- 7.7.3 Manage and maintain employee data (10524)
- 7.7.4 Manage human resource information systems HRIS (10525)
- 7.7.5 Develop and manage employee metrics (10526)
- 7.7.6 Develop and manage time and attendance systems (10527)
- 7.7.7 Manage/Collect employee suggestions and perform employee research (10530)

7.8 Manage employee communication (17057)

- 7.8.1 Develop employee communication plan (10529)
- 7.8.2 Conduct employee engagement surveys (16944)

7.9 Deliver employee communications (10532)

7.10 Manage union relations (12859)

- 7.10.1 Evaluate union relations internally (12860)
- 7.10.2 Evaluate union relations externally (12861)
- 7.10.3 Optimize relations (12862)
- 7.10.4 Monitor relations (12863)

8.0 Manage Information Technology (IT) (20607)

8.1 Develop and manage IT customer relationships (20608)

- 8.1.1 Understand IT customer needs (20609)
 - 8.1.1.1 Understand IT customer communities (20610)
 - 8.1.1.2 Assess IT customer operational capabilities (20611)
- 8.1.2 Identify IT customer transformation needs (20612)
 - 8.1.2.1 Understand business requirements for IT capabilities (20613)
 - 8.1.2.2 Understand IT landscape (20614)
 - 8.1.2.3 Develop IT visioning (20615)
 - 8.1.2.4 Outline IT service expectations (20616)
- 8.1.3 Plan and communicate IT services (20617)
 - 8.1.3.1 Manage IT customer expectations (20618)
 - 8.1.3.2 Define future IT services (20619)
 - 8.1.3.3 Determine IT performance indicators (20620)
 - 8.1.3.4 Create IT marketing messages (20621)
 - 8.1.3.5 Create IT service marketing plan (20622)
- 8.1.4 Provide IT transformation guidance (20623)
 - 8.1.4.1 Develop IT transformation plans (20624)
 - 8.1.4.2 Collect IT customer requirements (20625)
 - 8.1.4.3 Analyze IT customer requirements (20937)
 - 8.1.4.4 Identify and prioritize IT opportunities (20626)
 - 8.1.4.5 Facilitate solution design activities (20627)
 - 8.1.4.6 Prioritize IT outcomes (20628)
 - 8.1.4.7 Develop business cases (20629)
 - 8.1.4.8 Support business case (20630)
 - 8.1.4.9 Develop transformation roadmap (20631)
- 8.1.5 Develop and manage IT service levels (20632)
 - 8.1.5.1 Understand IT service requirements (20633)
 - 8.1.5.2 Forecast IT service demand (20634)
 - 8.1.5.3 Maintain IT services catalog (20635)
 - 8.1.5.4 Define service level agreement (20636)
 - 8.1.5.5 Maintain IT customer contracts (20637)
 - 8.1.5.6 Negotiate and establish service level agreements (20638)
 - 8.1.5.7 Develop and maintain improvement processes (20640)
- 8.1.6 Manage IT customer relationships (20641)
 - 8.1.6.1 Establish relationship management mechanisms (20642)
 - 8.1.6.2 Understand IT customer strategy (20643)
 - 8.1.6.3 Understand IT customer environment (20644)
 - 8.1.6.4 Communicate IT capabilities (20645)
 - 8.1.6.5 Manage IT requirements (20646)
- 8.1.7 Analyze service performance (20648)
 - 8.1.7.1 Assess SLA compliance (20649)
 - 8.1.7.2 Triage SLA compliance issues (20650)
 - 8.1.7.3 Collect feedback about IT products and

services (20647)

- 8.1.7.4 Synthesize and distribute IT performance information (20938)

8.2 Develop and manage IT business strategy (20652)

- 8.2.1 Define business technology and governance strategy (20653)
 - 8.2.1.1 Build and maintain IT strategic intelligence (20654)
 - 8.2.1.2 Monitor and map current and emerging technologies (20655)
 - 8.2.1.3 Define and communicate digital transformation strategy (20656)
 - 8.2.1.4 Develop IT strategic alignment (20657)
 - 8.2.1.5 Articulate IT alignment principles (20658)
 - 8.2.1.6 Maintain IT strategic alignment (20659)
- 8.2.2 Manage IT portfolio strategy (20660)
 - 8.2.2.1 Establish and validate IT value criteria (20661)
 - 8.2.2.2 Determine IT portfolio investment balance (20662)
 - 8.2.2.3 Evaluate proposed IT investment projects (20663)
 - 8.2.2.4 Prioritize IT projects (20664)
 - 8.2.2.5 Align IT resources to strategic priorities (20665)
 - 8.2.2.6 Align IT portfolio to business objectives (20667)
- 8.2.3 Define and maintain enterprise architecture (20668)
 - 8.2.3.1 Create and publish enterprise architecture principles (20670)
 - 8.2.3.2 Establish and operate enterprise architecture governance (20671)
 - 8.2.3.3 Research technologies to innovate IT services and solutions (20672)
 - 8.2.3.4 Provide input to definition and prioritization of IT projects (20673)
- 8.2.4 Define IT service management strategy (20674)
 - 8.2.4.1 Establish IT service management strategy and goals (20675)
 - 8.2.4.2 Identify IT service operating and process requirements (20676)
 - 8.2.4.3 Define IT service catalog (20677)
 - 8.2.4.4 Establish IT service management framework (20678)
 - 8.2.4.5 Define and implement IT service management (20679)
 - 8.2.4.6 Define and deploy support service management process tools and methods (20680)
 - 8.2.4.7 Monitor and report IT performance (20681)
- 8.2.5 Control IT management system (20682)
 - 8.2.5.1 Determine IT performance measures (20683)
 - 8.2.5.2 Define IT control points and assurance procedures governance model (20684)

8.2.5.3	Monitor and analyze overall IT performance (20685)	8.3.2.4	Establish mitigation approaches for IT risks (20720)
8.2.5.4	Monitor and analyze IT financial performance (20686)	8.3.3	Control IT risk, compliance, and security (20721)
8.2.5.5	Monitor and analyze IT value and benefits (20687)	8.3.3.1	Evaluate enterprise regulatory and compliance obligations (20722)
8.2.5.6	Optimize IT resource allocation (20688)	8.3.3.2	Analyze IT security threat impact (20723)
8.2.5.7	Manage IT projects and services interdependencies (20689)	8.3.3.3	Create and maintain IT compliance requirements (20724)
8.2.5.8	Report IT service and project performance (20690)	8.3.3.4	Create and maintain IT security policies, standards, and procedures (20942)
8.2.5.9	Select, deploy, and operate IT performance analytics tools (20692)	8.3.3.5	Develop and deploy risk management training (20725)
8.2.6	Manage IT value portfolio (20693)	8.3.3.6	Establish risk reporting capabilities and responsibilities (20726)
8.2.6.1	Assess performance against IT service and project value criteria (20694)	8.3.3.7	Establish communication standards (20727)
8.2.6.2	Quantify value of IT service and project portfolio investments (20695)	8.3.3.8	Conduct IT risk and threat assessments (20728)
8.2.6.3	Communicate business technology value contribution (20696)	8.3.3.9	Monitor and manage IT activity risk (20729)
8.2.6.4	Determine and implement IT portfolio adjustments (20697)	8.3.3.10	Identify, supervise and monitor IT risk mitigation measures (20730)
8.2.7	Define and manage technology innovation (20699)	8.3.4	Plan and manage IT continuity (20731)
8.2.7.1	Establish selection criteria for research initiatives (20700)	8.3.4.1	Evaluate IT continuity (20732)
8.2.7.2	Analyze emerging technology concepts (20701)	8.3.4.2	Identify IT continuity gaps (20733)
8.2.7.3	Identify technology concepts and capabilities (20702)	8.3.4.3	Manage IT business continuity (20734)
8.2.7.4	Execute IT research projects (20703)	8.3.5	Develop and manage IT security, privacy, and data protection (20735)
8.2.7.5	Evaluate IT research project outcomes (20939)	8.3.5.1	Assess IT regulatory and confidentiality requirements and policies (20736)
8.2.7.6	Identify and promote viable concepts (20704)	8.3.5.2	Create IT security, privacy, and data protection risk governance (20737)
8.2.7.7	Develop and plan IT investment projects (20705)	8.3.5.3	Define IT data security and privacy policies, standards, and procedures (20738)
8.3 Develop and manage IT resilience and risk (20706)		8.3.5.4	Review and monitor physical and logical IT data security measures (20739)
8.3.1	Develop IT compliance, risk, and security strategy (20707)	8.3.5.5	Review and monitor application security controls (20740)
8.3.1.1	Determine and evaluate IT regulatory and audit requirements (20708)	8.3.5.6	Review and monitor IT physical environment security controls (20741)
8.3.1.2	Understand business unit risk tolerance (20940)	8.3.5.7	Monitor/analyze network intrusion detection data and resolve threats (20742)
8.3.1.3	Establish IT risk tolerance (20709)	8.3.6	Conduct and analyze IT compliance assessments (20743)
8.3.1.4	Establish risk ownership (20710)	8.3.6.1	Conduct projects to enhance IT compliance and remediate risk (20744)
8.3.1.5	Establish and maintain risk management roles (20711)	8.3.6.2	Conduct IT compliance control auditing of internal and external services (20745)
8.3.1.6	Establish compliance objectives (20712)	8.3.6.3	Perform IT compliance reporting (20746)
8.3.1.7	Identify systems to support compliance (20941)	8.3.6.4	Identify and escalate IT compliance issues and remediation requirements (20747)
8.3.1.8	Identify and evaluate IT risk (20713)	8.3.6.5	Support external audits and reports (20748)
8.3.1.9	Evaluate IT-related risks resiliency (20714)	8.3.7	Develop and execute IT resilience and continuity operations (20749)
8.3.1.10	Create IT risk mitigation strategies and approaches (20715)	8.3.7.1	Conduct IT resilience improvement projects (20750)
8.3.2	Develop IT resilience strategy (20716)	8.3.7.2	Develop, document, and maintain IT business
8.3.2.1	Determine IT delivery resiliency (20717)		
8.3.2.2	Determine critical IT risks (20718)		
8.3.2.3	Prioritize IT risks (20719)		

- continuity planning (20751)
- 8.3.7.3 Implement and enforce change control procedures (20752)
- 8.3.7.4 Execute recurring IT service provider business continuity (20753)
- 8.3.7.5 Provide IT resilience training (20754)
- 8.3.7.6 Execute recurring IT business operations continuity (20755)
- 8.3.8 Manage IT user identity and authorization (20756)
 - 8.3.8.1 Support integration of identity and authorization policies (20757)
 - 8.3.8.2 Manage IT user directory (20758)
 - 8.3.8.3 Manage IT user authorization (20759)
 - 8.3.8.4 Manage IT user authentication mechanisms (20760)
 - 8.3.8.5 Audit IT user identity and authorization systems (20761)
 - 8.3.8.6 Respond to IT information security and network breaches (20762)
 - 8.3.8.7 Conduct penetration testing (20763)
 - 8.3.8.8 Audit integration of user identity and authorization systems (20764)

8.4 Manage information (20765)

- 8.4.1 Define business information and analytics strategy (20766)
 - 8.4.1.1 Establish data, information, and analytic objectives (20767)
 - 8.4.1.2 Establish data, information, and analytic governance (20768)
 - 8.4.1.3 Access IT data/analytic capabilities (20769)
- 8.4.2 Define and maintain business information architecture (20770)
 - 8.4.2.1 Determine enterprise business information requirements (20771)
 - 8.4.2.2 Define enterprise data models (20772)
 - 8.4.2.3 Identify and understand external data sources (20773)
 - 8.4.2.4 Establish data ownership and stewardship responsibilities (20774)
 - 8.4.2.5 Maintain and evolve enterprise data and information architecture (20775)
- 8.4.3 Define and execute business information lifecycle planning and control (20776)
 - 8.4.3.1 Define and maintain enterprise information policies, standards, and procedures (20777)
 - 8.4.3.2 Implement and execute data administration responsibilities (20778)
- 8.4.4 Manage business information content (20779)
 - 8.4.4.1 Monitor and control business information (20780)
 - 8.4.4.2 Maintain business information feeds and repositories (20781)
 - 8.4.4.3 Perform internal usage audits (20782)

- 8.4.4.4 Implement and administer business information access (20783)

8.5 Develop and manage services/solutions (20784)

- 8.5.1 Develop service/solution and integration strategy (20785)
 - 8.5.1.1 Determine IT service/solution development (20786)
 - 8.5.1.2 Define IT service/solution development processes/standards (20787)
 - 8.5.1.3 Identify, deploy, and support development methodologies and tools (20788)
 - 8.5.1.4 Establish service component criteria (20789)
 - 8.5.1.5 Understand and select reusable service components (20790)
 - 8.5.1.6 Maintain service component portfolio (20791)
 - 8.5.1.7 Establish development standards exception governance (20792)
- 8.5.2 Manage service/solution lifecycle planning (20793)
 - 8.5.2.1 Monitor and track emerging technology capabilities (20794)
 - 8.5.2.2 Identify IT services/solutions (20795)
 - 8.5.2.3 Determine IT service/solution approach (20796)
 - 8.5.2.4 Define IT solution lifecycle (20797)
 - 8.5.2.5 Develop IT service/solution “sunset” plans (20798)
- 8.5.3 Develop and manage service/solution architecture (20799)
 - 8.5.3.1 Assess IT application and infrastructure architecture constraints (20800)
 - 8.5.3.2 Assess business constraints on IT service/solution (20801)
 - 8.5.3.3 Determine IT component integration requirements (20802)
 - 8.5.3.4 Identify opportunities for IT component reuse (20803)
 - 8.5.3.5 Promote adoption of existing service/solution architecture (20804)
 - 8.5.3.6 Develop and maintain service/solution architectures (20805)
 - 8.5.3.7 Assess IT service/solution architecture conformance (20806)
 - 8.5.3.8 Manage architectural exceptions (20807)
- 8.5.4 Execute IT service/solution creation and testing (20808)
 - 8.5.4.1 Execute IT service/solution development lifecycle (20809)
 - 8.5.4.1.1 Assess and validate IT service/solution requirements (20810)
 - 8.5.4.1.2 Create service/solution design (20811)
 - 8.5.4.1.3 Build and test IT service/solution components (20812)
 - 8.5.4.1.4 Integrate IT components and services (20813)
 - 8.5.4.1.5 Execute IT service/solution validation (20814)

- 8.5.4.1.6 Bundle service/solution deployment packaging (20815)
- 8.5.4.1.7 Manage service/solution process exceptions (20816)
- 8.5.5 Perform service/solution maintenance and testing (20817)
 - 8.5.5.1 Execute IT service/solution maintenance lifecycle (20818)
 - 8.5.5.1.1 Assess IT remediation (20819)
 - 8.5.5.1.2 Modify service/solution design (20820)
 - 8.5.5.1.3 Perform IT service/solution remediation (20821)
 - 8.5.5.1.4 Manage service/solution operations (20822)
 - 8.5.5.1.5 Prepare fixed/enhanced service/solution packaging (20823)

8.6 Deploy services/solutions (20824)

- 8.6.1 Develop and manage service/solution deployment strategy (20825)
 - 8.6.1.1 Assess IT deployment business impact (20826)
 - 8.6.1.2 Establish IT deployment policies (20827)
 - 8.6.1.3 Define and create deployment procedure workflow (20828)
 - 8.6.1.4 Define IT change/release standards (20829)
 - 8.6.1.5 Assign deployment approval responsibilities (20830)
 - 8.6.1.6 Analyze deployments outcomes (20831)
- 8.6.2 Plan service and solution implementation (20832)
 - 8.6.2.1 Assess IT deployment risk (20833)
 - 8.6.2.2 Define implementation schedule and roll-out sequence (20834)
 - 8.6.2.3 Determine implementation requirements (20835)
 - 8.6.2.4 Plan and align user testing and resources (20836)
 - 8.6.2.5 Develop IT training (20837)
 - 8.6.2.6 Create implementation communications (20838)
 - 8.6.2.7 Manage IT roll-back procedures (20839)
- 8.6.3 Manage change deployment control (20840)
 - 8.6.3.1 Assess IT change/release impact (20841)
 - 8.6.3.2 Confirm change/release compliance (20842)
 - 8.6.3.3 Assess IT change/release risk (20843)
 - 8.6.3.4 Consolidate IT change (20844)
 - 8.6.3.5 Create and communicate deployment schedule (20845)
 - 8.6.3.6 Approve change/release deployment (20846)
 - 8.6.3.7 Document IT change/release outcome (20847)
- 8.6.4 Implement technology solutions (20848)
 - 8.6.4.1 Confirm hardware/software operational status (20849)
 - 8.6.4.2 Confirm operational availability (20850)
 - 8.6.4.3 Execute internal IT implementation plan (20851)

- 8.6.4.4 Confirm implementation completion (20852)
- 8.6.4.5 Implement software change/release (20853)
- 8.6.4.6 Perform post-installation testing (20854)
- 8.6.4.7 Distribute software components network-wide (20855)
- 8.6.4.8 Verify change/release implementation success (20856)
- 8.6.4.9 Execute roll-back plan (20857)
- 8.6.5 Perform service and solution rollout (20858)
 - 8.6.5.1 Conduct IT training (20859)
 - 8.6.5.2 Prepare and distribute service/solution communications (20860)
 - 8.6.5.3 Support organizational changes (20861)
 - 8.6.5.4 Execute rollout plans (20862)
 - 8.6.5.5 Provide rollout support (20863)
 - 8.6.5.6 Manage rollout support capabilities (20864)
 - 8.6.5.7 Monitor and record rollout issues (20865)

8.7 Create and manage support services/solutions (20866)

- 8.7.1 Define and establish service delivery strategy (20867)
 - 8.7.1.1 Assess business objectives and IT service delivery (20868)
 - 8.7.1.2 Define IT service delivery portfolio (20869)
 - 8.7.1.3 Create and maintain IT service delivery model (20870)
 - 8.7.1.4 Determine IT service delivery locations and activities (20871)
 - 8.7.1.5 Define IT service delivery sourcing strategy (20872)
- 8.7.2 Define and develop service support strategy (20873)
 - 8.7.2.1 Assess business objectives and IT service support delivery (20874)
 - 8.7.2.2 Define IT service support portfolio (20875)
 - 8.7.2.3 Create and maintain IT support model (20876)
 - 8.7.2.4 Develop IT support service sourcing strategy (20877)
 - 8.7.2.5 Establish support service framework (20878)
 - 8.7.2.6 Provide service support tools and technology (20879)
- 8.7.3 Plan and manage service delivery control (20880)
 - 8.7.3.1 Plan operational activities for IT service delivery (20881)
 - 8.7.3.1.1 Schedule service delivery resources (20882)
 - 8.7.3.1.2 Maintain/optimize batch job schedule (20883)
 - 8.7.3.1.3 Schedule change/release windows (20884)
 - 8.7.3.1.4 Schedule/optimize backup and archive activities (20885)
 - 8.7.3.1.5 Balance operational workloads across available infrastructure components (20886)

	8.7.3.1.6 Determine specific problem support procedures (20887)	8.7.6.2 Run and monitor batch job schedule (20907)
8.7.4	Develop and manage infrastructure resource planning (20888)	8.7.6.3 Manage service delivery workloads (20908)
8.7.4.1	Develop IT service delivery strategy (20889)	8.7.6.4 Manage infrastructure performance and capacity (20909)
8.7.4.2	Assess IT infrastructure business objectives (20890)	8.7.6.5 Respond to unplanned operational issues (20910)
8.7.4.3	Determine ongoing IT infrastructure capabilities (20891)	8.7.6.6 Produce and distribute output media (20911)
8.7.4.4	Plan IT infrastructure change (20892)	8.7.6.7 Monitor IT infrastructure security (20912)
8.7.4.5	Plan and budget IT license usage volumes (20893)	8.7.6.8 Manage IT infrastructure/data recovery (20913)
8.7.5	Define service support planning (20895)	8.7.7 Manage infrastructure resource administration (20914)
8.7.5.1	Understand IT support demand patterns (20896)	8.7.7.1 Manage infrastructure configuration (20915)
8.7.5.2	Determine required support resource levels, responsibilities, and capabilities (20897)	8.7.7.2 Perform infrastructure component maintenance (20916)
8.7.5.3	Maintain service support knowledge repository (20898)	8.7.7.3 Install/configure/upgrade infrastructure components (20917)
8.7.5.4	Maintain service support learning (20943)	8.7.7.4 Maintain IT asset records (20918)
8.7.5.5	Communicate service support needs (20899)	8.7.7.5 Administer IT licenses/user agreements (20919)
8.7.5.6	Define IT escalation mechanisms (20900)	8.7.7.6 Provide IT infrastructure service and capabilities (20920)
8.7.5.7	Manage IT service support resources (20901)	8.7.8 Operate IT user support (20921)
8.7.5.8	Coordinate with external support providers (20902)	8.7.8.1 Triage IT issues/requests (20922)
8.7.5.9	Triage IT service delivery incidents (20903)	8.7.8.2 Provide IT resolution capabilities (20923)
8.7.5.10	Monitor IT service support performance (20904)	8.7.8.3 Manage IT user requests (20925)
8.7.6	Develop and manage service delivery operations (20905)	8.7.8.4 Escalate IT requests (20926)
8.7.6.1	Operate and monitor online systems (20906)	8.7.8.5 Resolve IT issues/requests (20927)
		8.7.8.6 Execute IT continuity and recovery action (20928)

9.0 Manage Financial Resources (17058)

9.1 Perform planning and management accounting (10728)

- 9.1.1 Perform planning/budgeting/forecasting (10738)
 - 9.1.1.1 Develop and maintain budget policies and procedures (10771)
 - 9.1.1.2 Prepare periodic budgets and plans (10772)
 - 9.1.1.3 Operationalize and implement plans to achieve budget (20135)
 - 9.1.1.4 Prepare periodic financial forecasts (10773)
 - 9.1.1.5 Perform variance analysis against forecasts and budgets (20136)
 - 9.1.1.6 Develop project budgets (12865)
- 9.1.2 Perform cost accounting and control (10739)
 - 9.1.2.1 Perform inventory accounting (10774)
 - 9.1.2.2 Perform profit center accounting (14057)
 - 9.1.2.3 Perform cost of sales analysis (10775)
 - 9.1.2.4 Perform product costing (10776)
 - 9.1.2.5 Perform variance analysis (10777)
 - 9.1.2.6 Report on profitability (11175)
- 9.1.3 Perform cost management (10740)
 - 9.1.3.1 Determine key cost drivers (10778)
 - 9.1.3.2 Measure cost drivers (10779)
 - 9.1.3.3 Determine critical activities (10780)
 - 9.1.3.4 Manage asset resource deployment and utilization (10781)
- 9.1.4 Evaluate and manage financial performance (10741)
 - 9.1.4.1 Assess customer and product profitability (10782)
 - 9.1.4.2 Evaluate new products (10783)
 - 9.1.4.3 Perform life cycle costing (10784)
 - 9.1.4.4 Optimize customer and product mix (10785)
 - 9.1.4.5 Track performance of new-customer and product strategies (10786)
 - 9.1.4.6 Prepare activity-based performance measures (10787)
 - 9.1.4.7 Manage continuous cost improvement (10788)

9.2 Perform revenue accounting (10729)

- 9.2.1 Process customer credit (10742)
 - 9.2.1.1 Establish credit policies (10789)
 - 9.2.1.2 Analyze/Approve new account applications (10790)
 - 9.2.1.3 Analyze credit scoring history (14187)
 - 9.2.1.4 Forecast credit scoring requirement (14188)
 - 9.2.1.5 Review existing accounts (10791)
 - 9.2.1.6 Produce credit/collection reports (10792)
 - 9.2.1.7 Reinstate or suspend accounts based on credit policies (10793)
- 9.2.2 Invoice customer (10743)
 - 9.2.2.1 Maintain customer/product master files (10794)
 - 9.2.2.2 Generate customer billing data (10795)

- 9.2.2.3 Transmit billing data to customers (10796)
- 9.2.2.4 Post receivable entries (10797)
- 9.2.2.5 Resolve customer billing inquiries (10798)
- 9.2.3 Process accounts receivable (AR) (10744)
 - 9.2.3.1 Establish AR policies (10799)
 - 9.2.3.2 Receive/Deposit customer payments (10800)
 - 9.2.3.3 Apply cash remittances (10801)
 - 9.2.3.4 Prepare AR reports (10802)
 - 9.2.3.5 Post AR activity to the general ledger (10803)
- 9.2.4 Manage and process collections (10745)
 - 9.2.4.1 Establish policies for delinquent accounts (10804)
 - 9.2.4.2 Analyze delinquent account balances (10805)
 - 9.2.4.3 Correspond/Negotiate with delinquent accounts (10806)
 - 9.2.4.4 Discuss account resolution with internal parties (10807)
 - 9.2.4.5 Process adjustments/write off balances (10808)
 - 9.2.4.6 Perform recovery workout (14007)
 - 9.2.4.7 Manage default accounts (14008)
- 9.2.5 Manage and process adjustments/deductions (10746)
 - 9.2.5.1 Establish policies/procedures for adjustments (10809)
 - 9.2.5.2 Analyze adjustments (10810)
 - 9.2.5.3 Correspond/Negotiate with customer (10811)
 - 9.2.5.4 Discuss resolution with internal parties (10812)
 - 9.2.5.5 Prepare chargeback invoices (10813)
 - 9.2.5.6 Process related entries (10814)

9.3 Perform general accounting and reporting (10730)

- 9.3.1 Manage policies and procedures (10747)
 - 9.3.1.1 Negotiate service-level agreements (10815)
 - 9.3.1.2 Establish accounting policies (10816)
 - 9.3.1.3 Publish accounting policies (20604)
 - 9.3.1.4 Set and enforce approval limits (10817)
 - 9.3.1.5 Establish common financial systems (10818)
- 9.3.2 Perform general accounting (10748)
 - 9.3.2.1 Maintain chart of accounts (10819)
 - 9.3.2.2 Process journal entries (10820)
 - 9.3.2.3 Process allocations (10821)
 - 9.3.2.4 Process period end adjustments (10822)
 - 9.3.2.5 Post and reconcile intercompany transactions (10823)
 - 9.3.2.6 Reconcile general ledger accounts (10824)
 - 9.3.2.7 Perform consolidations and process eliminations (10825)
 - 9.3.2.8 Prepare trial balance (10826)
 - 9.3.2.9 Prepare and post management adjustments (10827)
- 9.3.3 Perform fixed-asset accounting (10749)

9.3.3.1	Establish fixed-asset policies and procedures (10828)	9.5.1.2	Collect and record employee time worked (10854)
9.3.3.2	Maintain fixed-asset master data files (10829)	9.5.1.3	Analyze and report paid and unpaid leave (10855)
9.3.3.3	Process and record fixed-asset additions and retires (10830)	9.5.1.4	Monitor regular, overtime, and other hours (10856)
9.3.3.4	Process and record fixed-asset adjustments, enhancements, revaluations, and transfers (10831)	9.5.1.5	Analyze and report employee utilization (10857)
9.3.3.5	Process and record fixed-asset maintenance and repair expenses (10832)	9.5.2	Manage pay (10754)
9.3.3.6	Calculate and record depreciation expense (10833)	9.5.2.1	Enter employee time worked into payroll system (10858)
9.3.3.7	Reconcile fixed-asset ledger (10834)	9.5.2.2	Maintain and administer employee earnings information (10859)
9.3.3.8	Track fixed-assets including physical inventory (10835)	9.5.2.3	Maintain and administer applicable deductions (10860)
9.3.3.9	Provide fixed-asset data to support tax, statutory, and regulatory reporting (10836)	9.5.2.4	Monitor changes in tax status of employees (10861)
9.3.4	Perform financial reporting (10750)	9.5.2.5	Process and distribute payments (10862)
9.3.4.1	Prepare business unit financial statements (10837)	9.5.2.6	Process and distribute manual checks (10863)
9.3.4.2	Prepare consolidated financial statements (10838)	9.5.2.7	Process period-end adjustments (10864)
9.3.4.3	Perform business unit reporting/review management reports (10839)	9.5.2.8	Respond to employee payroll inquiries (10865)
9.3.4.4	Perform consolidated reporting/review of cost management reports (10840)	9.5.3	Manage and process payroll taxes (10755)
9.3.4.5	Prepare statements for board review (10841)	9.5.3.1	Develop tax plan (14075)
9.3.4.6	Produce quarterly/annual filings and shareholder reports (10842)	9.5.3.2	Manage tax plan (14076)
9.3.4.7	Produce regulatory reports (10843)	9.5.3.3	Calculate and pay applicable payroll taxes (10866)
9.3.4.8	Perform legal and management consolidation (14074)	9.5.3.4	Produce and distribute employee annual tax statements (10867)
		9.5.3.5	File regulatory payroll tax forms (10868)
9.4	Manage fixed-asset project accounting (10731)	9.6	Process accounts payable and expense reimbursements (10733)
9.4.1	Perform capital planning and project approval (10751)	9.6.1	Process accounts payable (AP) (10756)
9.4.1.1	Develop capital investment policies and procedures (10844)	9.6.1.1	Verify AP pay file with purchase order vendor master file (10869)
9.4.1.2	Develop and approve capital expenditure plans and budgets (10845)	9.6.1.2	Maintain/Manage electronic commerce (10870)
9.4.1.3	Review and approve capital projects and fixed-asset acquisitions (10846)	9.6.1.3	Audit invoices and key data in AP system (10871)
9.4.1.4	Conduct financial justification for project approval (10847)	9.6.1.4	Approve payments (10872)
9.4.2	Perform capital project accounting (10752)	9.6.1.5	Process financial accruals and reversals (10873)
9.4.2.1	Create project account codes (10848)	9.6.1.6	Process payables taxes (10874)
9.4.2.2	Record project-related transactions (10849)	9.6.1.7	Research/Resolve payable exceptions (10875)
9.4.2.3	Monitor and track capital projects and budget spending (10850)	9.6.1.8	Process payments (10876)
9.4.2.4	Close/capitalize projects (10851)	9.6.1.9	Respond to AP inquiries (10877)
9.4.2.5	Measure financial returns on completed capital projects (10852)	9.6.1.10	Retain records (10878)
		9.6.1.11	Adjust accounting records (10879)
9.5	Process payroll (10732)	9.6.2	Process expense reimbursements (10757)
9.5.1	Report time (10753)	9.6.2.1	Establish and communicate expense reimbursement policies and approval limits (10880)
9.5.1.1	Establish policies and procedures (10853)	9.6.2.2	Capture and report relevant tax data (10881)
		9.6.2.3	Approve reimbursements and advances (10882)
		9.6.2.4	Process reimbursements and advances (10883)
		9.6.2.5	Manage personnel accounts (10884)

- 9.6.3 Manage corporate credit cards (20929)
 - 9.6.3.1 Establish corporate credit card policies and approval limits (20930)
 - 9.6.3.2 Process corporate credit card requests (20931)
 - 9.6.3.3 Order corporate credit cards (20932)
 - 9.6.3.4 Manage corporate credit card accounts (20933)
 - 9.6.3.5 Approve/Change credit limits (20934)
 - 9.6.3.6 Cancel/Deactivate credit card (20935)
- 9.7 Manage treasury operations (10734)**
 - 9.7.1 Manage treasury policies and procedures (10758)
 - 9.7.1.1 Establish scope and governance of treasury operations (10885)
 - 9.7.1.2 Establish and publish treasury policies (10886)
 - 9.7.1.3 Develop treasury procedures (10887)
 - 9.7.1.4 Monitor treasury procedures (10888)
 - 9.7.1.5 Audit treasury procedures (10889)
 - 9.7.1.6 Revise treasury procedures (10890)
 - 9.7.1.7 Develop and confirm internal controls for treasury (10891)
 - 9.7.1.8 Define system security requirements (10892)
 - 9.7.2 Manage cash (10759)
 - 9.7.2.1 Manage and reconcile cash positions (10893)
 - 9.7.2.2 Manage cash equivalents (10894)
 - 9.7.2.3 Process and oversee electronic fund transfers (EFTs) (10895)
 - 9.7.2.4 Develop cash flow forecasts (10896)
 - 9.7.2.5 Manage cash flows (10897)
 - 9.7.2.6 Produce cash management accounting transactions and reports (10898)
 - 9.7.2.7 Manage and oversee banking relationships (10899)
 - 9.7.2.8 Analyze, negotiate, resolve, and confirm bank fees (10900)
 - 9.7.3 Manage in-house bank accounts (10760)
 - 9.7.3.1 Manage in-house bank accounts for subsidiaries (10901)
 - 9.7.3.2 Manage and facilitate inter-company borrowing transactions (10902)
 - 9.7.3.3 Manage centralized outgoing payments on behalf of subsidiaries (10903)
 - 9.7.3.4 Manage central incoming payments on behalf of subsidiaries (10904)
 - 9.7.3.5 Manage internal payments and netting transactions (10905)
 - 9.7.3.6 Calculate interest and fees for in-house bank accounts (10906)
 - 9.7.3.7 Provide account statements for in-house bank accounts (10907)
 - 9.7.4 Manage debt and investment (10761)
 - 9.7.4.1 Establish investment policy (14079)
 - 9.7.4.2 Manage financial intermediary relationships (10908)
 - 9.7.4.3 Manage liquidity (10909)
 - 9.7.4.4 Manage issuer exposure (10910)
 - 9.7.4.5 Process and oversee debt and investment transactions (10911)
 - 9.7.4.6 Process and oversee foreign currency transactions (10912)
 - 9.7.4.7 Produce debt and investment accounting transaction reports (10913)
 - 9.7.4.8 Process and oversee interest rate transactions (14210)
 - 9.7.5 Monitor and execute risk and hedging transactions (11208)
 - 9.7.5.1 Develop risk management/hedging strategy (12974)
 - 9.7.5.2 Manage interest rate risk (11209)
 - 9.7.5.2.1 Manage interest rate market data (19575)
 - 9.7.5.2.2 Determine interest rate exposure for all markets (19576)
 - 9.7.5.2.3 Determine interest rate hedge requirements in accordance with risk policy (19577)
 - 9.7.5.2.4 Execute interest rate trades (19578)
 - 9.7.5.3 Manage foreign exchange risk (11210)
 - 9.7.5.3.1 Manage foreign exchange market data (19579)
 - 9.7.5.3.2 Determine foreign exchange exposure for all currencies (19580)
 - 9.7.5.3.3 Determine foreign exchange hedge requirements in accordance with risk policy (19581)
 - 9.7.5.3.4 Execute foreign exchange trades (19582)
 - 9.7.5.3.5 Manage foreign exchange balance sheet risk (19583)
 - 9.7.5.4 Manage exposure risk (11211)
 - 9.7.5.4.1 Determine current customer exposures and limit exceptions (19584)
 - 9.7.5.4.2 Resolve customer exposure limit violations (19585)
 - 9.7.5.4.3 Manage customer collateral (19586)
 - 9.7.5.4.4 Perform annual customer credit reviews (19587)
 - 9.7.5.5 Execute hedging transactions (20137)
 - 9.7.5.5.1 Measure physical positions (19588)
 - 9.7.5.5.2 Establish hedges (19589)
 - 9.7.5.5.3 Unwind hedges (19590)
 - 9.7.5.5.4 Evaluate and refine hedging positions (11213)
 - 9.7.5.5.5 Monitor credit (11215)
 - 9.7.5.6 Produce hedge accounting transactions and reports (11214)
 - 9.7.6 Manage financial fraud/dispute cases (16958)

9.8 Manage internal controls (10735)

- 9.8.1 Establish internal controls, policies, and procedures (10762)
 - 9.8.1.1 Establish board of directors and audit committee (10914)
 - 9.8.1.2 Define and communicate code of ethics (10915)
 - 9.8.1.3 Assign roles and responsibility for internal controls (10916)
 - 9.8.1.4 Define business process objectives and risks (11250)
 - 9.8.1.5 Define entity/unit risk tolerances (11251)
- 9.8.2 Operate controls and monitor compliance with internal controls policies and procedures (10763)
 - 9.8.2.1 Design and implement control activities (10917)
 - 9.8.2.2 Monitor control effectiveness (10918)
 - 9.8.2.3 Remediate control deficiencies (10919)
 - 9.8.2.4 Create compliance function (10920)
 - 9.8.2.5 Operate compliance function (10921)
 - 9.8.2.6 Implement and maintain controls-related enabling technologies and tools (10922)
- 9.8.3 Report on internal controls compliance (10764)
 - 9.8.3.1 Report to external auditors (10923)
 - 9.8.3.2 Report to regulators, share-/debt-holders, securities exchanges, etc. (10924)
 - 9.8.3.3 Report to third parties (10925)
 - 9.8.3.4 Report to internal management (10926)

9.9 Manage taxes (10736)

- 9.9.1 Develop tax strategy and plan (10765)
 - 9.9.1.1 Develop foreign, national, state, and local tax

strategy (10927)

- 9.9.1.2 Consolidate and optimize total tax plan (10928)
- 9.9.1.3 Maintain tax master data (10929)
- 9.9.2 Process taxes (10766)
 - 9.9.2.1 Perform tax planning/strategy (10930)
 - 9.9.2.2 Prepare tax returns (10931)
 - 9.9.2.3 Prepare foreign taxes (10932)
 - 9.9.2.4 Calculate deferred taxes (10933)
 - 9.9.2.5 Account for taxes (10934)
 - 9.9.2.6 Monitor tax compliance (10935)
 - 9.9.2.7 Address tax inquiries (10936)

9.10 Manage international funds/consolidation (10737)

- 9.10.1 Monitor international rates (10767)
- 9.10.2 Manage transactions (10768)
- 9.10.3 Monitor currency exposure/hedge currency (10769)
- 9.10.4 Report results (10770)

9.11 Perform global trade services (17059)

- 9.11.1 Screen sanctioned party list (14090)
- 9.11.2 Control exports and imports (14091)
- 9.11.3 Classify products (14092)
- 9.11.4 Perform currency conversion (19593)
- 9.11.5 Calculate duty (14093)
- 9.11.6 Communicate with customs (14094)
- 9.11.7 Document trade (14095)
- 9.11.8 Process trade preferences (14096)
- 9.11.9 Handle restitution (14097)
- 9.11.10 Prepare letter of credit (14098)

10.0 Acquire, Construct, and Manage Assets (19207)

10.1 Plan and acquire assets (10937)

- 10.1.1 Develop property strategy and long term vision (10941)
 - 10.1.1.1 Confirm alignment of property requirements with business strategy (10955)
 - 10.1.1.2 Appraise the external environment (10956)
 - 10.1.1.3 Determine build or buy decision (10957)
- 10.1.2 Plan facility (10943)
 - 10.1.2.1 Design facility (10958)
 - 10.1.2.2 Analyze budget (10959)
 - 10.1.2.3 Select property (10960)
 - 10.1.2.4 Negotiate terms for facility (10961)
 - 10.1.2.5 Manage construction or modification to building (10962)
- 10.1.3 Provide workspace and facilities (10944)
 - 10.1.3.1 Acquire workspace and facilities (10963)
 - 10.1.3.2 Change fit/form/function of workspace and facilities (10964)

- 10.1.4 Manage facilities operations (10949)

- 10.1.4.1 Relocate people (10965)
- 10.1.4.2 Relocate material and tools (10966)

10.2 Design and construct productive assets (19208)

- 10.2.1 Manage capital program for productive assets (19209)
 - 10.2.1.1 Define capital investment plan (19210)
 - 10.2.1.2 Monitor capital program (19211)
 - 10.2.1.3 Secure construction financing (19212)
- 10.2.2 Design and plan asset construction (20139)
 - 10.2.2.1 Develop construction strategy (19220)
 - 10.2.2.2 Perform construction performance management (11276)
 - 10.2.2.3 Obtain construction permissions (19221)
 - 10.2.2.4 Design assets (19222)
 - 10.2.2.5 Plan construction resources (19223)
- 10.2.3 Schedule and perform construction work (19229)

- 10.2.3.1 Schedule construction work (19230)
- 10.2.3.2 Obtain resources (19231)
- 10.2.3.3 Construct new assets (19232)
- 10.2.3.4 Augment existing assets (19233)
- 10.2.3.5 Renew/Replace assets (19234)
- 10.2.4 Manage asset construction (19224)
 - 10.2.4.1 Monitor work performance (19225)
 - 10.2.4.2 Undertake construction quality control (19226)
 - 10.2.4.3 Create work and asset records (19227)
 - 10.2.4.4 Manage safety, security, and access to sites (19228)
- 10.3 Maintain productive assets (19238)**
 - 10.3.1 Plan asset maintenance (19239)
 - 10.3.1.1 Develop maintenance strategies (19240)
 - 10.3.1.2 Analyze assets and predict maintenance requirements (10967)
 - 10.3.1.3 Specify maintenance policies (19241)
 - 10.3.1.4 Integrate preventive maintenance into operations schedule (10968)
 - 10.3.1.5 Identify work management tasks & priorities (19242)
 - 10.3.1.6 Conduct resource planning (19243)
 - 10.3.1.7 Create work plans (19244)
 - 10.3.2 Manage asset maintenance (19245)
 - 10.3.2.1 Schedule maintenance work (19246)
 - 10.3.2.2 Obtain required resources (19247)
 - 10.3.2.3 Undertake quality control (19248)
 - 10.3.2.4 Update work and asset records (19249)
 - 10.3.2.5 Manage maintenance work safety (19250)
 - 10.3.2.6 Define maintenance performance targets (19251)
 - 10.3.2.7 Monitor maintenance performance against targets/contracts (19252)
 - 10.3.3 Perform asset maintenance (19253)
 - 10.3.3.1 Perform preventative asset maintenance (10947)
 - 10.3.3.2 Perform routine asset maintenance (19254)
 - 10.3.3.3 Perform corrective asset maintenance and repairs (19255)
 - 10.3.3.4 Identify unplanned maintenance requirements (19256)
 - 10.3.3.5 Perform unplanned maintenance and repairs (19257)
- 10.4 Dispose of assets (10940)**
 - 10.4.1 Develop exit strategy (10952)
 - 10.4.2 Decommission productive assets (19258)
 - 10.4.3 Perform sale or trade (10953)
 - 10.4.4 Perform abandonment (10954)
 - 10.4.5 Perform waste and hazardous goods management (16970)

11.0 Manage Enterprise Risk, Compliance, Remediation, and Resiliency (16437)

11.1 Manage enterprise risk (17060)

- 11.1.1 Establish the enterprise risk framework and policies (16439)
 - 11.1.1.1 Determine risk tolerance for organization (16440)
 - 11.1.1.2 Develop and maintain enterprise risk policies and procedures (16441)
 - 11.1.1.3 Identify and implement enterprise risk management tools (16442)
 - 11.1.1.4 Coordinate the sharing of risk knowledge across the organization (16443)
 - 11.1.1.5 Prepare and report enterprise risk to executive management and board (16444)
- 11.1.2 Oversee and coordinate enterprise risk management activities (16445)
 - 11.1.2.1 Identify enterprise level risks (16446)
 - 11.1.2.2 Assess risks to determine which to mitigate (16447)
 - 11.1.2.3 Develop risk mitigation and management strategy and integrate with existing performance management processes (16448)
 - 11.1.2.4 Verify business unit and functional risk mitigation plans are implemented (16449)
 - 11.1.2.5 Ensure risks and risk mitigation actions are monitored (16450)
 - 11.1.2.6 Report on enterprise risk activities (16451)
 - 11.1.2.7 Coordinate business unit and functional risk management activities (16452)
 - 11.1.2.8 Ensure that each business unit/function follows the enterprise risk management process (16453)
 - 11.1.2.9 Ensure that each business unit/function follows the enterprise risk reporting process (16454)
- 11.1.3 Manage business unit and function risk (17462)
 - 11.1.3.1 Identify risks (16456)
 - 11.1.3.2 Assess risks using enterprise risk framework policies and procedures (16457)
 - 11.1.3.3.1 Assess adequacy of insurance coverage (18129)
 - 11.1.3.3 Develop mitigation plans for risks (16458)
 - 11.1.3.4 Implement mitigation plans for risks (16459)
 - 11.1.3.5 Monitor risks (16460)
 - 11.1.3.6 Analyze risk activities and update plans (16461)

11.1.3.7 Report on risk activities (16462)

11.2 Manage compliance (17467)

11.2.1 Establish compliance framework and policies (17468)

11.2.1.1 Develop enterprise compliance policies and procedures (17469)

11.2.1.2 Implement enterprise compliance activities (17470)

11.2.1.3 Manage internal audits (14133)

11.2.1.4 Maintain controls-related technologies and tools (14137)

11.2.2 Manage regulatory compliance (16463)

11.2.2.1 Develop regulatory compliance procedures (16464)

11.2.2.2 Identify applicable regulatory requirements (16465)

11.2.2.3 Monitor the regulatory environment for changing or emerging regulations (16466)

11.2.2.4 Assess current compliance position and identify weaknesses or shortfalls therein (16467)

11.2.2.5 Implement missing or stronger regulatory compliance controls and policies (16468)

11.2.2.6 Monitor and test regulatory compliance position

and existing controls (16469)

11.2.2.7 Compile and communicate compliance scorecard(s) (19595)

11.2.2.8 Compile and communicate internal and regulatory compliance reports (19596)

11.2.2.9 Maintain relationships with regulators as appropriate (16470)

11.3 Manage remediation efforts (11185)

11.3.1 Create remediation plans (11201)

11.3.2 Contact and confer with experts (11202)

11.3.3 Identify/dedicate resources (11203)

11.3.4 Investigate legal aspects (11204)

11.3.5 Investigate damage cause (11205)

11.3.6 Amend or create policy (11206)

11.4 Manage business resiliency (11216)

11.4.1 Develop the business resilience strategy (11221)

11.4.2 Perform continuous business operations planning (11222)

11.4.3 Test continuous business operations (11223)

11.4.4 Maintain continuous business operations (11224)

11.4.5 Share knowledge of specific risks across other parts of the organization (16471)

12.0 Manage External Relationships (10012)

12.1 Build investor relationships (11010)

12.1.1 Plan, build, and manage lender relations (11035)

12.1.2 Plan, build, and manage analyst relations (11036)

12.1.3 Communicate with shareholders (11037)

12.2 Manage government and industry relationships (11011)

12.2.1 Manage government relations (11038)

12.2.1.1 Assess relationships (12869)

12.2.1.2 Appoint responsible executives (12870)

12.2.1.3 Monitor relationships (12871)

12.2.1.4 Receive input from internal advisors (12872)

12.2.1.5 Receive input from external advisors (12873)

12.2.1.6 Liaise with authorities (12874)

12.2.2 Manage relations with quasi-government bodies (11039)

12.2.2.1 Establish relationships with agencies (12875)

12.2.2.2 Respond to audit inquiries (12876)

12.2.2.3 Maintain documentation of contacts (12877)

12.2.2.4 Plan and manage meetings (12878)

12.2.3 Manage relations with trade or industry groups (11040)

12.2.3.1 Evaluate the requirements for strategic relationships (12879)

12.2.3.2 Monitor the success of the partnerships (12880)

12.2.3.3 Extend or change the relationships (12881)

12.2.4 Manage lobby activities (11041)

12.3 Manage relations with board of directors (11012)

12.3.1 Report financial results (11042)

12.3.2 Report audit findings (11043)

12.4 Manage legal and ethical issues (11013)

12.4.1 Create ethics policies (11044)

12.4.2 Manage corporate governance policies (11045)

12.4.3 Develop and perform preventive law programs (11046)

12.4.4 Ensure compliance (11047)

12.4.4.1 Plan and initiate compliance program (11053)

12.4.4.2 Execute compliance program (11054)

12.4.5 Manage outside counsel (11048)

12.4.5.1 Assess problem and determine work requirements (11056)

12.4.5.2 Engage/Retain outside counsel if necessary (11057)

12.4.5.3 Receive strategy/budget (11058)

12.4.5.4 Receive work product and manage/monitor case and work performed (11059)

12.4.5.5 Process payment for legal services (11060)

12.4.5.6 Track legal activity/performance (11061)

12.4.6 Protect intellectual property (11049)

12.4.6.1 Manage copyrights, patents, and trademarks (11062)

12.4.6.2 Maintain intellectual property rights and restrictions (11063)

12.4.6.3 Administer licensing terms (11064)

- 12.4.6.4 Administer options (11065)
- 12.4.7 Resolve disputes and litigations (11050)
- 12.4.8 Provide legal advice/counseling (11051)
- 12.4.9 Negotiate and document agreements/contracts (11052)

12.5 Manage public relations program (11014)

- 12.5.1 Manage community relations (11066)
- 12.5.2 Manage media relations (11067)
- 12.5.3 Promote political stability (11068)
- 12.5.4 Create press releases (11069)
- 12.5.5 Issue press releases (11070)

13.0 Develop and Manage Business Capabilities (10013)

13.1 Manage business processes (16378)

- 13.1.1 Establish and maintain process management governance (16379)
 - 13.1.1.1 Define and manage governance approach (16380)
 - 13.1.1.2 Establish and maintain process tools and templates (16381)
 - 13.1.1.3 Assign and support process ownership (16382)
 - 13.1.1.4 Perform process governance activities (16383)
- 13.1.2 Define and manage process frameworks (16384)
 - 13.1.2.1 Establish and maintain process framework (163850)
 - 13.1.2.2 Identify cross-functional processes (16386)
- 13.1.3 Define processes (16387)
 - 13.1.3.1 Scope processes (16388)
 - 13.1.3.2 Analyze processes (16389)
 - 13.1.3.2.1 Identify published best practices (20140)
 - 13.1.3.3 Model and document processes (16390)
 - 13.1.3.4 Publish processes (16391)
- 13.1.4 Manage process performance (16392)
 - 13.1.4.1 Provide process training (16393)
 - 13.1.4.2 Support process execution (16394)
 - 13.1.4.3 Measure and report process performance (16395)
 - 13.1.4.3.1 Identify additional metrics as required (20141)
- 13.1.5 Improve processes (16396)
 - 13.1.5.1 Identify and select improvement opportunities (16397)
 - 13.1.5.2 Manage improvement projects (16398)
 - 13.1.5.3 Perform continuous improvement activities (16399)

13.2 Manage portfolio, program, and project (16400)

- 13.2.1 Manage portfolio (16401)
 - 13.2.1.1 Establish portfolio strategy (16402)
 - 13.2.1.2 Define portfolio governance (16403)

- 13.2.1.3 Monitor and control portfolio (16404)

13.2.2 Manage programs (16405)

- 13.2.2.1 Establish program structure and approach (16406)
- 13.2.2.2 Manage program stakeholders and partners (16407)
- 13.2.2.3 Manage program execution (16408)
- 13.2.2.4 Review and report program performance (16409)

13.2.3 Manage projects (16410)

- 13.2.3.1 Establish project scope (16411)
 - 13.2.3.1.1 Identify project requirements and objectives (11117)
 - 13.2.3.1.2 Identify project resource requirements (16412)
 - 13.2.3.1.3 Assess culture and readiness for project management approach (11118)
 - 13.2.3.1.4 Create business case and obtain funding (11120)
 - 13.2.3.1.5 Develop project measures and indicators (11121)
- 13.2.3.2 Identify appropriate project management methodologies (11119)
- 13.2.3.3 Develop project plans (16413)
 - 13.2.3.3.1 Define roles and resources (11123)
 - 13.2.3.3.2 Acquire/secure project resources (20142)
 - 13.2.3.3.3 Identify specific IT requirements (11124)
 - 13.2.3.3.4 Create training and communication plans (11125)
 - 13.2.3.3.5 Design recognition and reward approaches (11127)
 - 13.2.3.3.6 Design and plan launch of project (11128)
 - 13.2.3.3.7 Deploy the project (11129)
- 13.2.3.4 Execute projects (16414)
 - 13.2.3.4.1 Evaluate impact of project

- management (strategy and projects) on measures and outcomes (11131)
- 13.2.3.4.2 Report the status of project (16415)
- 13.2.3.4.3 Manage project scope (16416)
- 13.2.3.4.4 Promote and sustain activity and involvement (11132)
- 13.2.3.4.5 Realign and refresh project management strategy and approaches (11133)
- 13.2.3.5 Review and report project performance (16417)
- 13.2.3.6 Close projects (16418)

13.3 Manage enterprise quality (17471)

- 13.3.1 Establish quality requirements (17472)
 - 13.3.1.1 Define critical-to-quality characteristics (17473)
 - 13.3.1.2 Define preventive quality activities (17474)
 - 13.3.1.3 Develop quality controls (17475)
 - 13.3.1.3.1 Define process steps for controls (or integration points) (17476)
 - 13.3.1.3.2 Define sampling plan (17477)
 - 13.3.1.3.3 Identify measurement methods (17478)
 - 13.3.1.3.4 Define required competencies (17479)
 - 13.3.1.4 Prove capability to assess compliance with requirements (17480)
 - 13.3.1.5 Finalize quality plan (17481)
- 13.3.2 Evaluate performance to requirements (17482)
 - 13.3.2.1 Test against quality plan (17483)
 - 13.3.2.1.1 Conduct test and collect data (17484)
 - 13.3.2.1.2 Record result(s) (17485)
 - 13.3.2.1.3 Determine disposition of result(s) (17486)
 - 13.3.2.2 Assess results of tests (17487)
 - 13.3.2.2.1 Assess sample significance (17488)
 - 13.3.2.2.2 Summarize result(s) (17489)
 - 13.3.2.2.3 Recommend actions (17490)
 - 13.3.2.2.4 Decide next steps (17491)
- 13.3.3 Manage non-conformance (17492)
 - 13.3.3.1 Assess potential impact (17493)
 - 13.3.3.2 Determine immediate action(s) (17494)
 - 13.3.3.3 Identify root cause(s) (17495)
 - 13.3.3.4 Take corrective or preventative action (17496)
 - 13.3.3.5 Close non-conformance (17497)
- 13.3.4 Implement and maintain the enterprise quality management system (EQMS) (17498)
 - 13.3.4.1 Define the quality strategy (17499)
 - 13.3.4.2 Plan and deploy the EQMS scope, targets, and goals (17500)
 - 13.3.4.3 Identify core EQMS processes, controls, and metrics (17501)
 - 13.3.4.4 Develop and document EQMS policies,

- procedures, standards, and measures (17502)
- 13.3.4.5 Assess the EQMS performance (17503)
- 13.3.4.6 Create environment and capability for EQMS improvement(s) (17504)
 - 13.3.4.6.1 Reward quality excellence (17505)
 - 13.3.4.6.2 Create and maintain quality partnerships (17506)
 - 13.3.4.6.3 Maintain talent capabilities and competencies (17507)
 - 13.3.4.6.4 Incorporate EQMS messaging into communication channels (17508)
 - 13.3.4.6.5 Assure independent EQMS management access to appropriate authority in the organization (17509)
 - 13.3.4.6.6 Transfer proven EQMS methods (17510)

13.4 Manage change (11074)

- 13.4.1 Plan for change (11134)
 - 13.4.1.1 Select process improvement methodology (11138)
 - 13.4.1.2 Determine stakeholders (11140)
 - 13.4.1.3 Assess readiness for change (11139)
 - 13.4.1.4 Identify change champion(s) (11141)
 - 13.4.1.5 Form design team (11142)
 - 13.4.1.6 Define scope (11143)
 - 13.4.1.7 Understand current state (11144)
 - 13.4.1.8 Define future state (11145)
 - 13.4.1.9 Conduct organizational risk analysis (11146)
 - 13.4.1.10 Assess cultural issues (11147)
 - 13.4.1.11 Identify impacted groups (20143)
 - 13.4.1.12 Determine degree/extent of impact (20144)
 - 13.4.1.13 Establish accountability for change management (11148)
 - 13.4.1.14 Identify barriers to change (11149)
 - 13.4.1.15 Determine change enablers (11150)
 - 13.4.1.16 Identify resources and develop measures (11151)
- 13.4.2 Design the change (11135)
 - 13.4.2.1 Assess connection to other initiatives (11152)
 - 13.4.2.2 Develop change management plans (11153)
 - 13.4.2.3 Develop training plan (11154)
 - 13.4.2.4 Develop communication plan (11155)
 - 13.4.2.5 Assign change champion(s) (20145)
 - 13.4.2.6 Develop rewards/incentives plan (11156)
 - 13.4.2.7 Establish change adoption metrics (11157)
 - 13.4.2.8 Establish/Clarify new roles (11158)
 - 13.4.2.9 Identify budget/roles (11159)
- 13.4.3 Implement change (11136)
 - 13.4.3.1 Create commitment for improvement/change (11160)
 - 13.4.3.2 Reengineer business processes and systems (11161)

- 13.4.3.3 Support transition to new roles or exit strategies for incumbents (11162)
- 13.4.3.4 Monitor change (11163)
- 13.4.3.5 Report on change (20146)
- 13.4.4 Sustain improvement (11137)
 - 13.4.4.1 Monitor improved process performance (11164)
 - 13.4.4.2 Capture and reuse lessons learned from change process (11165)
 - 13.4.4.3 Take corrective action as necessary (11166)

13.5 Develop and manage enterprise-wide knowledge management (KM) capability (11073)

- 13.5.1 Develop KM strategy (11095)
 - 13.5.1.1 Develop governance model with roles and accountability (11100)
 - 13.5.1.2 Define roles and accountability of core group versus operating units (11102)
 - 13.5.1.3 Develop funding models (11103)
 - 13.5.1.4 Identify links to key initiatives (11104)
 - 13.5.1.5 Develop core KM methodologies (11105)
 - 13.5.1.6 Assess IT needs and engage IT function (11106)
 - 13.5.1.7 Develop training and communication plans (11107)
 - 13.5.1.8 Develop change management approaches (11108)
 - 13.5.1.9 Develop strategic measures and indicators (11109)
- 13.5.2 Assess KM capabilities (11096)
 - 13.5.2.1 Assess maturity of existing KM initiatives (11110)
 - 13.5.2.2 Evaluate existing KM approaches (11111)
 - 13.5.2.3 Identify gaps and needs (11112)
- 13.5.3 Design and implement KM capabilities (20965)
 - 13.5.3.1 Develop new KM approaches (11114)
 - 13.5.3.2 Design resource model for KM approaches (20966)
 - 13.5.3.3 Implement new KM approaches (11115)
 - 13.5.3.4 Leverage and enhance IT for KM approaches (20967)
 - 13.5.3.5 Develop measures (20968)
- 13.5.4 Evolve and sustain KM capabilities (20969)
 - 13.5.4.1 Enhance/Modify existing KM approaches (11113)
 - 13.5.4.2 Sustain awareness and engagement (20970)
 - 13.5.4.3 Expand KM infrastructure to meet demand (20971)

13.6 Measure and benchmark (16436)

- 13.6.1 Create and manage organizational performance strategy (11071)
 - 13.6.1.1 Create enterprise measurement systems model (11075)
 - 13.6.1.2 Measure process efficiency (11076)
 - 13.6.1.3 Measure cost effectiveness (11077)
 - 13.6.1.4 Measure staff productivity (11078)
 - 13.6.1.5 Measure cycle time (11079)
- 13.6.2 Benchmark performance (11072)
 - 13.6.2.1 Conduct performance assessments (11083)
 - 13.6.2.2 Develop benchmarking capabilities (11084)
 - 13.6.2.3 Conduct internal process and external competitive benchmarking (11085)
 - 13.6.2.4 Conduct gap analysis (11087)
 - 13.6.2.5 Establish need for change (11088)
- 13.6.3 Evaluate process performance (20147)
 - 13.6.3.1 Establish appropriate performance indicators (metrics) (10270)
 - 13.6.3.2 Establish monitoring frequency (10271)
 - 13.6.3.3 Collect data (20148)
 - 13.6.3.4 Calculate performance measures (10272)
 - 13.6.3.5 Identify performance trends (10273)
 - 13.6.3.6 Analyze performance against benchmark data (10274)
 - 13.6.3.7 Prepare reports (10275)
 - 13.6.3.8 Develop performance improvement plan (10276)

13.7 Manage environmental health and safety (EHS) (11179)

- 13.7.1 Determine environmental health and safety impacts (11180)
 - 13.7.1.1 Evaluate environmental impact of products, services, and operations (11186)
 - 13.7.1.2 Conduct health and safety and environmental audits (11187)
- 13.7.2 Develop and execute functional EHS program (11181)
 - 13.7.2.1 Identify regulatory and stakeholder requirements (11188)
 - 13.7.2.2 Assess future risks and opportunities (11189)
 - 13.7.2.3 Create EHS policy (11190)
 - 13.7.2.4 Record and manage EHS events (11191)
- 13.7.3 Train and educate functional employees (11182)
 - 13.7.3.1 Communicate EHS issues to stakeholders and provide support (11192)
- 13.7.4 Monitor and manage functional EHS management program (11183)
 - 13.7.4.1 Manage EHS costs and benefits (11193)
 - 13.7.4.2 Measure and report EHS performance (11194)
 - 13.7.4.3 Implement emergency response program (11196)
 - 13.7.4.4 Implement pollution prevention program (11197)
 - 13.7.4.5 Provide employees with EHS support (11195)

13.8 Develop, Manage, and Deliver Analytics (20959)

- 13.8.1 Develop and manage hypotheses (20960)
- 13.8.2 Collect data (20961)
- 13.8.3 Analyze data (20962)
- 13.8.4 Report on data (20963)
- 13.8.5 Identify remedial actions (20964)



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