Basic Supply Chain Practice Cheat Sheet

Defini tions

Supply Chain Manage ment:

design, planning, execution, control, and monitoring of supply chain activities - five key supply chain activi ties:Plan,Source,Make, Deliver, Return - with the objective of creating net value, building a compet itiveinfras tru -cture, leveraging worldwide logistics, synchr onizingsupplywith demand, and measuring perfor manceglobally.

Suppliermanage ment:

Selecting,monito ring,and evaluating suppliers to ensure they meet the organi zat ion's requir ements.

Inventorymanage ment:

Overseeing the flow of goods and ensuring that the organi - zation has the right amount of inventory at the right time.

Demand planning: Foreca sting customer demand for products and services.

Logisticsmanage ment:

Managing the flow of goods from the point of origin to the point of consum ption.

Transp ort ation manage ment:

Managing the movement of goods from one location to another, including shipping and receiving.

Warehousemanage ment:

Overseeing the storage and movement of goods within a warehouse.

Defini tions (cont)

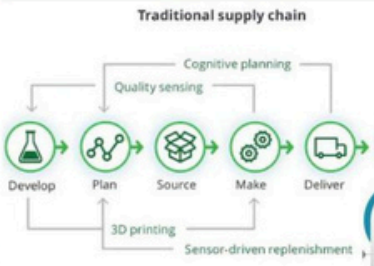
Orderfulfil lment:Processingand delivering customer orders.

Reverse logistics: Managing the return of goods from customers.

Perfor mance measur ement:

Tracking and measuring key perfor manceindicators (KPIs) to evaluate the effect ivenessofsupplychain operat ions.

Riskmanage ment:Identi fying and mitigating risks that could impact supply chain operat ions.



Plan-s our ce-mak e - d eli ver -returnframework

Plan: Developing a strategy for the supply chain, determ iningthedemandfor products and services, and planning production and inventory levels accord ingly.

Source:Identi fyingand selecting suppliers, negoti atingcontracts,and managing the procur ement of raw materials, goods, and services.

Plan-s our ce-mak e - d eli ver -return framework (cont)

Make:Transf ormingraw materials into finished products or services, managing production schedules, and ensuring quality control.

Deliver: Managing the logistics of getting products or services to customers, including transp ort -ation, wareho using,anddistri - bution.

Return: Managing the reverse logistics process for returning goods from customers, including handling returns, repairs, and recycling.

Source, Make, Deliver, Return

1. Demand planning and foreca -sting

a. Collect data: Collect historical sales data, customer orders, and any other relevant data on demand for the product or service.

b. Cleanse data: to remove any anomalies, outliers, or errors that could skew the forecast.

c. Analyze data: using statis tical techniques such as regression analysis or time series analysis to identify trends, season ality, and other patterns in the data.

1. Demand planning and foreca -sting(cont)

d. Determine key demand drivers: for the product or service, such as changes in customer prefer ences,economic condit ions,orcompetitoractivity.

e. Develop foreca sting models: based on the data analysis and demand drivers. Use a combin - ation of quanti tative and qualit -ativeforeca sting techniques to produce the most accurate forecast possible.

f. Validate foreca sting models: by comparing the forecasted demand to actual demand over a period of time. Adjust the models as necessary to improve accuracy.

g.Incorp orateexternalfactors: that could impact demand, such as weather patterns, political events, or natural disasters.

h. Review and update foreca - sting models regularly: to ensure they remain accurate over time. Factors such as changes in the market, customer prefer ences, or economic conditions could impact demand and require adjust ments to the models.

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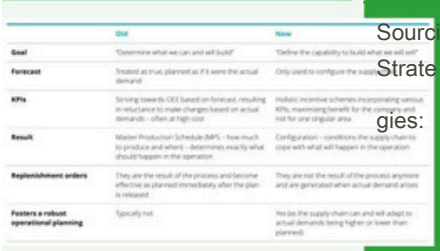

	Old	New
Goal	"Determine what we can and will build"	"Define the capability to build what we will sell"
Forecast	Treated as true, planned as if it were the actual demand	Only used to configure the supply
KPIs	Striving towards OEE based on forecast, resulting in reluctance to make changes based on actual demands - often at high cost	Holistic incentive schemes incorporating various KPIs, maximizing benefit for the company and not for one singular area
Result	Master Production Schedule (MPS - how much to produce and when) - determines exactly what should happen in the operation	Configuration - conditions the supply chain to cope with what will happen in the operation
Replenishment orders	They are the result of the process and become effective as planned immediately after the plan is released	They are not the result of the process anymore and are generated when actual demand arises
Fosters a robust operational planning	Typically not	Yes (as the supply chain can and will adapt to actual demands being higher or lower than planned)

2. Source Management

Supplier Source Evaluation management and begins with Selection: evaluating potential

suppliers and selecting those that align with the organi zat ion's requir ements.This involves assessing factors such as suppliercapabi - lities, financial stability, quality standards, capacity, track record, and adherence to social andenviro nmental respon sib ility. Supplier evaluation may also include site visits, audits, and perfor mance assess ments.

2. Source Management (cont)

Sourcing Strategies:

Sourcemanagement Strate - encomp asses determ iningthe optimal sourcing strategies for different categories of goods or services. This involves decisions regarding whether to source locally or globally, single or multiple suppliers,make-o r-buy choices, and strategicpartne - rships. Sourcing strategies aim to balance factors such as cost, quality, lead time, risk mitiga tion, and respon siv eness to customer demand.

2. Source Management (cont)

Supplier Relati - onship M ana ge ment:

Building strong relati - onshipswith suppliersiscrucial for effective source manage ment.It involves establ ishing clearexpect ations, commun ication channels, and perfor - mance metrics. Supplier relati onship management includes activities such as contract negoti ation, supplier develo pment programs,collab - orationinitia tives, and joint improv - ement projects. Effective relati onship management helps foster trust, collab - ora tion,and continuousimprov - ement throughout the supply chain.

2. Source Management (cont)

Supplier Perfor - mance ement:

Sourcemanagement involvesmeasuring andmonitoring supplier Measur perfor mance toensurecompliance withcontra ctual agreements and quality standards.

Keyperfor mance indicators (KPIs) may include metrics such as on-time delivery, product quality, lead time,respon siv - eness, cost, and customersatisf - action. Supplier perfor mance measur ementhelps identify areas for improv ement, manage risks, and drive supplier accoun tab ility.

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2. Source Management (cont)

Supplier Collaboration and Innovation:

Sourcemanagement encouragescollaboration and innovationwith supplierstodrive mutualbenefitsand value creation. Organizationscan work closely with suppliers to identify cost-saving opportunities, process improvements,new product development, and joint innovation projects.Collaborativerelationships foster knowledge sharing, technology transfer, and agility in responding to market changes.

2. Source Management (cont)

Supply Chain Risk Management:

Sourcemanagement alsoinvolves assessingand managing risks associatedwith suppliers and the supply chain. This includesidentifying potential disruptions, developingcontingency plans, diversifying the supplier base, and establishing risk mitigation strategies.Risk management aims to ensure continuity of supply, minimize disruptions,and enhance supply chainresilience.

2.SourceManagement(cont)

Ethical and Sustainable Sourcing:

Source management increasingly focuses onethicaland sustainable sourcingpractices. Organizations strive toensurethat suppliersadhereto socialandenvironmentalstandards, includinglabor rights,fairtrade practices,environmental regulations, andresponsible sourcingofraw materials.Ethical sourcingpractices helpprotectbrand reputation,meet consumerexpectations, and contribute to sustainable development goals.

2.SourceManagement(cont)

Supplier Performance Improvement:

Sourcemanagement involvescollaborating withunderperformingsuppliers toimprovetheir capabilitiesand performance.This mayinclude providingtraining, sharingbest practices,implementingcorrective actions,andincentivizingcontinuous improvement initiatives. Supplier performance improvement aimstoenhance overallsupplychain performanceand maintainacompetitiveadvantage.

Basic Supply Chain Practice Cheat Sheet

3.Manufa cturingorproduction management
Production Manufa cturing Planning management and Schedu - ling: involves developing productionplans and schedules that optimize resource utiliz ation, minimizebottle - necks, and meet customer demand. It includes determ - ining production quanti ties, sequencing orders, allocating resources (including manpower and machines), and consid ering factors such as lead times, capacity constr aints,and inventory levels.

3.Manufa cturingorproduction management (cont)
Inventory Manage - ment: Effectivemanufa - cturingmanagement requiresefficient inventory management practices. This involves optimizing inventory levels, implem enting inventory control measures (e.g., just-i n-timeprinciples or leanmanufa ctu - ring), managing reorder points, and ensuring adequate availa bility of raw materials,work-i n- p - rogress (WIP), and finished goods. Inventory management aims to minimize carrying costs, reduce stockouts, and balance production with demand.

3.Manufa cturingorproduction management (cont)
Production Manufa cturing Process Optimi - zation: management focuses on contin - uouslyimproving production processes to enhanceeffici - ency, quality, and produc tivity.This includes analyzing and reengi neering workflows, reducing cycle times,implem - enting automation or technology solutions, and employing lean manufa cturing princi ples. Process optimi zation aims to eliminate waste, improvethroug - hput, and achieve cost savings.

3.Manufa cturingorproduction management (cont)
Quality Manage - ment: Ensuringproduct quality is a crucial aspectofmanufa- cturing manage ment. It involves establ - ishing and mainta - ining quality standards,implem - enting quality control measures, conductinginspec - tions, and performing tests throughout the production process. Quality management aims to identify and resolve quality issues promptly, minimize defects, and deliver products that meet or exceed customer expect ations.

Basic Supply Chain Practice Cheat Sheet

3.Manufa cturingorproduction management (cont)

Mainte - Manufa cturing
nanceand management
Equipment includesthe
Manage - effective
ment: managementof
production
equipment and
mainte nance
activi ties.This
involves regular
equipment
mainte -
nance,implem -
enting preventive
mainte nance
schedules,
managing repairs,
and ensuring
optimal equipment
perfor mance.
Propermainte -
nance helps
minimize
downtime,
enhance
reliab ility,
and extend the
lifespan of
machinery.

3.Manufa cturingorproduction management (cont)

Workforce Managingthe
Manage
- manufa cturing
ment: workforceis
essential for
efficient
operat ions.

Manufa cturing
management
involves workforce
planning, training,
anddevelo pment

to ensure that the
right skills are
available when
needed. It also
includes tracking
laborproduc tivity,
managing staffing
levels, fostering a
safe working
enviro nment,and
promoting
employee
engage -
ment. Workforce
management aims
to optimize labor
utiliz ationand
enhance overall
produc tivity.

3.Manufa cturingorproduction management (cont)

Continuous Manufa cturing
Improv - management
ement embracesa
Initia tives: cultureof
continuous
improv ement.It
involvesimplem -
entingmethod -
ologies such as
Six Sigma,

Kaizen, or Total
Productive
Mainte nance
(TPM) to drive
ongoing process
improv ement.
Theseinitia tives
focus on identi -
fying and elimin -
ating waste,
reducingvariab -

ility, and
enhancing overall
operat ional
perfor mance.

3.Manufa cturingorproduction management (cont)

Integr
- Manufa cturing
ation
with managementworksin
closecollaboration
Supply withotherfunctions

Chain: withinthesupply
chain, such as
procur -
ement, logistics, and
demand planning. It
ensures seamless
coordi nationand

inform ationflow
across these functions
to optimize
produc tion,
inventory, and distri -
butionactivi ties.
Effectiveintegr ation
supports efficient
material flow, demand
fulfil lment,and
overall
supply chain optimi -
zation.

Basic Supply Chain Practice Cheat Sheet

4. Inventory management

a. Determine inventory requir - ements: for the project, including the desired inventory levels and the minimum order quanti ties.

b. Identify inventory costs: identify the costs associated with holding inventory, such as storage costs, handling costs, and the cost of capital tied up in the inventory.

c. Classify inventory: into categories based on their importance or value, such as high-value items, slow-m oving items, or critical items.

d. Set inventory policies: including reorder points, safety stock levels, and lead times, based on the inventory requir -ements,costs,and classi fic -ation.

e. Monitor inventory levels: regularly to ensure they are within the desired range. Use inventory tracking tools such as barcodes, RFID, or inventory management software to track inventory levels accura tely.

f. Implement inventory control measures: such as just-i n-time (JIT) inventory, vendor - ma nagedinventory(VMI),or consig nmentinventory,to optimize inventory levels and minimize costs.

4. Inventory management (cont)

g. Analyze inventory perfor - mance: regularly to identify areas forimprov ement.Usekey perfor manceindicators(KPIs) such as inventory turnover, days inventoryoutsta nding(DIO),or inventory accuracy to evaluate inventoryperfor mance.

h. Optimize inventory manage - ment: by contin uously improving inventory policies, control measures, and processes based on the analysis of inventory perfor mance.

Inventory Management

5. Logistics management

a. Plan logistics requir ements: for the project, including transp -ort ation, wareho using,anddistri - bution.

b.Developtransp ort ation plans: based on the project requir -ements,including selecting carriers, modes of transp ort -ation,and routes.

c.Managetransp ort ation: shipping and receiving, tracking shipments, and ensuring on-time delivery.

5. Logistics management (cont)

d.Planwareho using requir - ements: selecting the approp - riate warehouse locations, layouts, and storage methods.

e. Manage warehouse operat - ions: receiving and storing goods, order picking, and shipping.

f. Implement distri bution strate - gies: to ensure timely and cost-e ffe ctivedeliveryof goods to customers, including cross-doc -king,direct shipment, or multi-stop delivery.

g.Monitorlogisticsperfor mance: using key perfor mance indicators (KPIs), such as on-time delivery, order accuracy, and transp ort ationcosts.

h. Continuous improv ement: for all logistics processes, includingtransp ort ation, wareho using,and distri bution,basedonthe analysis of logistics perfor - mance.

Logistics

6.Transp ort ation management (cont)

b. Identify and evaluate transp - ort ationproviders:carriers, brokers, or freight forwar ders, based on their service offerings, pricing, and reliab ility.

c.Negotiatetransp ort ation contracts: rates, delivery schedules, and perfor mancemetrics.

d.Plantransp ort ation activi ties:shipment schedu ling, routing, and tracking.

e.Monitortransp ort ation perfor - mance: using key perfor mance indicators (KPIs), such as on-time delivery, transit time, and transp ort ationcosts.

f.Addresstransp ort ation issues: such as delayed delive ries,damagedgoods, or capacity constr aints, through effective commun icationand proble m-s -olving.

g.Optimizetransp ort ation manage ment:bycontin uously improvingtransp ort ation policies, processes, and techno - logies based on the analysis of transp ort ationperfor mance.

a.Definetransp ort ation requir - ements: mode of transp ort ation,route,and delivery schedule.