Resiliency Badge Assessment Diagnostic Reference

2026

331 assessment diagnostics
Organized by resilience domain and subdomain to show the evidence base used to evaluate resilience maturity at the product-category level. The library spans key performance indicators, policies and procedures, survey questions, and structured interview questions.

Client review copy

This reference presents the assessment diagnostics used to evaluate resilience maturity by product category. Scoring mechanics, response fields, maturity grading, weights, and assessor notes are not included.

Assessment Framework

The HIRC Resiliency Badge evaluates a supplier's resilience maturity for a specific product category. The assessment examines the capabilities, practices, and evidence that support continuity of supply for that product category across seven supply chain resilience domains. Each domain is divided into focused subdomains, creating a structured view of resilience maturity rather than a single enterprise-level questionnaire.

Diagnostic Type	Count	Share
Key Performance Indicators	61	18%
Policies & Procedures	128	39%
Survey Questions	78	24%
Interview Questions	64	19%

Domain Summary

Domain	Subdomains	Diagnostics
Demand Planning	4	42
Inventory Management	5	97
Logistics	3	26
Supply Chain Visibility	4	38
Supplier Management	3	25
Risk Management and Contingency Planning	6	91
Operational Health	2	12

How to Read This Reference

The diagnostic library includes key performance indicators, policy and procedure assessments, survey questions, and structured interview questions. These diagnostics are evidence inputs within the broader product-category maturity assessment; they should not be interpreted as 331 standalone questions that every participant answers in the same manner. Each domain section lists its subdomains and groups the diagnostics by assessment method. Key performance indicators are shown with the KPI name and measurement approach; other items are presented as assessment prompts, with spreadsheet-only formatting normalized for readability.

1. Demand Planning

42 diagnostics across 4 subdomains

Subdomain	Diagnostics
Demand Variability Management	13
Demand Agility	15
Channel Strength	8
Collaborative Planning across Business Units	6

1.1 Demand Variability Management

13 diagnostics

Key Performance Indicators (2)

1. Forecast Error

   Measurement approach: *Calculate the absolute difference between forecasted and actual demand for a specific time period.*

2. Mean Absolute Percentage Error

   Measurement approach: *Calculate the absolute percentage difference between forecasted and actual demand for each time period, then average those percentages.*

Policies & Procedures (8)

1. Provide details of an SOP outlining the frequency and specific metrics and methodologies used to measure forecast accuracy, such as Mean Absolute Percentage Error (MAPE) or Mean Squared Error (MSE).
2. How frequently are forecast accuracy assessments conducted, and what is the process for evaluating forecast errors to identify trends, patterns, and root causes of inaccuracies?
3. Provide details of guidelines in the SOP for resolving significant forecast discrepancies.
4. How does the SOP outline the forecasting methodologies used to manage demand variability, such as statistical modeling, collaborative forecasting, or demand sensing techniques?
5. How are different forecasting methods selected and applied based on the characteristics of product categories or demand patterns?
6. How does the SOP detail the process of demand segmentation, categorizing products based on demand patterns, product families, or customer segments?
7. Provide details of an SOP that defines the procedures for making forecast adjustments and updates in response to changing market conditions or unforeseen events.
8. Provide details of an SOP that outlines how forecast accuracy results, insights and updates are communicated within the organization and to external partners, and what is the frequency of such updates?

Survey Questions (1)

1. How much of scheduling is based on demand provided by provider, and how much is based on demand forecasting?

Interview Questions (2)

1. How does the organization account for the lag and potential inaccuracy of customer demand forecasts received via distributors? Describe the process in place for ordered quantities which are much higher than usual.
2. What are the major challenges faced by the company in demand variability management for healthcare products? How are these challenges being addressed and how does the organization foster a culture of continuous improvement within this function?

1.2 Demand Agility

15 diagnostics

Key Performance Indicators (3)

1. Supply Chain Redundancy

   Measurement approach: *Assess the percentage of critical components sourced from backup suppliers in comparison to primary suppliers.*

2. Order Fulfillment Time

   Measurement approach: *Calculate the average time interval between order receipt and successful delivery to customers.*

3. Backorder Rate

   Measurement approach: *Calculate the percentage of orders placed on backorder over a specific time period.*

Policies & Procedures (8)

1. How are real-time data sources and market insights utilized to update forecasts promptly?
2. How does the SOP outline procedures for rapid response planning, enabling swift reactions to unexpected changes in demand or supply?
3. Provide details of an SOP for collaborative scenario planning that involves assessing multiple demand scenarios and preparing appropriate responses for each.
4. How are inventory replenishment strategies adapted to accommodate changing demand patterns & sudden demand influx?
5. Provide details of an SOP for agile scheduling that enables rapid adjustments to plans in response to demand changes.
6. How are lead times and capacity constraints factored into agile scheduling?
7. Provide details of an SOP for rapid order processing and fulfillment to meet urgent customer demands and reduce lead times, while ensuring accuracy and quality.
8. How does the SOP outline agile logistics and distribution practices that enable quick adjustments to delivery routes and channels based on changing demand patterns?

Survey Questions (2)

1. What are the mechanisms for reallocating inventory across different locations or channels to optimize availability?

2. What strategies are in place to manage demand agility during peak demand seasons or periods of high market uncertainty?

Interview Questions (2)

1. How does the organization ensure real-time visibility of demand data and market dynamics to facilitate agile decision-making?
2. What are the major challenges faced by the company in demand agility and real-time demand management, and how are these challenges being addressed by improvement initiatives?

1.3 Channel Strength

8 diagnostics

Key Performance Indicators (1)

1. Channel Inventory Management

   Measurement approach: *Compare inventory turnover ratios across different sales channels.*

Policies & Procedures (3)

1. How does the SOP outline procedures for monitoring and evaluating the performance of channel partners? How are Key Performance Indicators (KPIs) used to assess the effectiveness and efficiency of channel partners?
2. Provide details of an SOP for sharing near real-time demand and supply information with channel partners to enhance visibility and facilitate proactive planning.
3. How are channel partners integrated into the demand sensing process to enhance accuracy and responsiveness?

Survey Questions (1)

1. How is provider and distributor inventory also considered to accurately gauge channel strength?

Interview Questions (3)

1. Please walk through the channel strength process in place, including how the organization differentiates their approach for direct and indirect distribution channels and ensures product availability for end customers.
2. How is inventory flow managed in distribution channels to optimize turnover rates and ensure product availability? Is buffer inventory maintained strategically to bolster channel strength for critical products?
3. How does the organization proactively identify potential risks to channel strength, such as disruptions in distribution or high market uncertainty? What contingency plans / redundancies are in place to address such risks?

1.4 Collaborative Planning across Business Units

6 diagnostics

Policies & Procedures (3)

1. How does the SOP outline the S&OP process that involves collaborative planning and decision-making between sales, operations, finance, and other relevant BUs?
2. Provide details of an SOP for balancing demand and supply across different BUs to ensure optimal inventory levels and minimize stockouts.

3. Provide details of an SOP to align performance metrics and Key Performance Indicators (KPIs) across BUs to monitor supply chain performance collectively.

Survey Questions (2)

1. How far out does the organization look into for capacity growth and automation to align with their demand projections?
2. What mechanisms are in place to track improvements in forecast accuracy and customer satisfaction through collaborative planning efforts?

Interview Questions (1)

1. Please walk through the collaborative planning process (CPFR) in place, including how different business units are involved in developing integrated business plans for all providers (not just limited to hospitals). Show how demand planning and allocation closely linked.

2. Inventory Management

97 diagnostics across 5 subdomains

Subdomain	Diagnostics
Target Inventory Levels and Safety Stock Management	31
Lead Time Management	8
Capacity Management	22
Stockout and Backorder Management	20
Redundancy, Optionality and SKU Rationalization	16

2.1 Target Inventory Levels and Safety Stock Management

31 diagnostics

Key Performance Indicators (7)

1. Service levels

   Measurement approach: *Calculate the ratio of fulfilled orders to total orders in the past 12 months, then multiply by 100 to get the percentage.*

2. Percentage of items above/below safety levels

   Measurement approach: *Divide the number of products below safety stock by the total number of products in inventory, then multiply by 100.*

3. Inventory Days-on-Hand

   Measurement approach: *Divide the inventory by projected daily demand across various inventory categories (e.g. allocated, cycle, safety stock)*

4. Order Fulfillment Cycle Time

   Measurement approach: *Calculate the average time from order placement to product delivery.*

5. Inventory Turnover

   Measurement approach: *Divide the cost of goods sold (COGS) by the average inventory value.*

6. Target Inventory Levels Accuracy

   Measurement approach: *Calculate the absolute difference between projected and actual inventory levels.*

7. Stockout Rate

   Measurement approach: *Calculate the ratio of stockouts to total order requests, then multiply by 100.*

Policies & Procedures (14)

1. Provide details of a formal inventory policy or SOP that outlines the company's objectives, principles, and approach to inventory management.
2. Provide details of a policy regarding the use of 3rd party logistics providers to manage inventory.

3. Provide details of specific policies pertaining to National Stockpile Products, Integrated Delivery Network (IDN) or GPO requirements with regards to inventory management.
4. How does the SOP provide clear guidance on how to set and adjust target inventory levels for different products or materials? Are critical products given special consideration?
5. Provide details of a process in place to regularly review and update the inventory management policies and SOPs based on changing business conditions and performance feedback.
6. Provide details of a dedicated safety stock policy that defines the purpose and methodology for determining safety stock levels.
7. How does the SOP outline the specific formulas or statistical methods used to calculate safety stock based on demand forecasts, demand variability and lead time?
8. How are supplier lead times and reliability factored into the replenishment strategy and target inventory levels?
9. How does the SOP facilitate collaboration with suppliers and providers to identify critical items, optimize inventory levels and reduce lead times?
10. Provide details of provisions to coordinate safety stock strategies and demand forecasting with key suppliers.
11. Provide details of an SOP for conducting periodic audits to ensure compliance with inventory management policies and procedures.
12. Provide details of defined KPIs for evaluating inventory performance, and how are the results utilized for decision-making and process improvement.
13. How does the SOP outline measures to handle unexpected events or disruptions that could impact inventory levels and safety stock?
14. How are contingency plans developed and communicated to mitigate risks and ensure business continuity?

Survey Questions (6)

1. How often does the organization review and update target inventory levels? What triggers the need for adjustments (e.g., changes in demand patterns, lead times, or business strategy)?
2. Are there different tiering of safety stock and when are they kicked into effect?
3. How frequently are safety stock levels reviewed and adjusted? What factors influence these adjustments?
4. What are the specific strategies to manage and mitigate risks associated with demand fluctuations? Does the organization use multi-echelon inventory planning?
5. What is the replenishment strategy employed by the organization (e.g., make-to-order, make-to-stock, etc.)? Does the organization use vendor managed inventory (VMI)?
6. How does the organization use inventory management software or systems to optimize target inventory levels and safety stock?

Interview Questions (4)

1. How does the organization differentiate between day-to-day safety stock levels and risk management inventory buffers?
2. What are the guidelines to handle seasonality and promotional demand spikes when managing safety stock?
3. How are external factors such as market trends, customer demands, or regulatory changes considered when managing target inventory levels and safety stock?

4. How are the results of inventory performance evaluations used to drive decision-making and process improvement initiatives? Describe the ongoing improvement projects or initiatives aimed at enhancing inventory management capabilities.

2.2 Lead Time Management

8 diagnostics

Key Performance Indicators (2)

1. Lead Time Variability

   Measurement approach: *Calculate the coefficient of variance (standard deviation/mean) of lead times over the past 24 months.*

2. Lead Time Trend

   Measurement approach: *Calculate the linear regression slope of lead times over time.*

Policies & Procedures (3)

1. Provide details of a dedicated SOP for lead time data collection, specifying the required data sources and fields for procuring raw materials, components, or finished goods.
2. Provide details of a detailed SOP that explains the methodologies used to measure and calculate lead times for different products or materials.
3. How does the SOP define specific KPIs for measuring lead time performance, such as lead time variance, on-time delivery, or lead time accuracy? How are these KPIs used to drive decision making?

Survey Questions (2)

1. How frequently are lead time forecasts updated, and what triggers the need for updates (e.g., changes in supplier performance, production schedules, transportation lead times)?
2. What methods or models does the organization use to handle lead time volatility and uncertainty in the supply chain and are they at the SKU level?

Interview Questions (1)

1. What are the specific guidelines for adjusting lead times in response to changes in supplier performance, production schedules, or transportation conditions?

2.3 Capacity Management

22 diagnostics

Key Performance Indicators (5)

1. Capacity Utilization Rate

   Measurement approach: *Divide actual production output by maximum production capacity, then multiply by 100.*

2. Production Downtime

   Measurement approach: *Sum the durations of all unplanned production downtimes.*

3. Capacity Planning Accuracy

   Measurement approach: *Calculate the percentage deviation between planned and actual production capacities.*

4. Disruption Capped Production Instances

Measurement approach: *Divide the duration where production is running at capacity by the total duration, across supply chain disruption events*

5. Disruption Production Capacity Flexibility

Measurement approach: *Divide the incremental ad-hoc increase in production capacity by the baseline production capacity*

Policies & Procedures (8)

1. Provide details of a dedicated SOP for capacity planning that outlines the processes and methodologies used to determine the required production capacity for labor, processes and systems.
2. How is historical production data and demand patterns utilized to forecast capacity requirements?
3. Provide details of specific guidelines for short-term and long-term capacity planning to meet changing customer demands.
4. Provide details of a documented approach for assessing the organization's capacity scalability and flexibility to accommodate changes in demand or market dynamics.
5. Provide details of SOPs related to inventory management that align with capacity planning, ensuring optimal stock levels to support production schedules.
6. Provide details of specific SOPs for equipment maintenance and downtime management to minimize production disruptions.
7. Provide details of a documented approach for identifying potential capacity-related risks and disruptions.
8. Provide details of contingency plans in place to mitigate the impact of capacity constraints or unexpected events.

Survey Questions (3)

1. How does the organization collect and analyze data related to capacity, including production output, machine capabilities, and workforce availability?
2. What strategies or tools are employed to optimize capacity utilization while ensuring the flexibility to adapt to demand fluctuations?
3. What are the key performance indicators (KPIs) used to measure capacity management effectiveness? How are these metrics tracked and reported?

Interview Questions (6)

1. How does the organization ensure that it has visibility into the current operating capacity and potential capacity at each manufacturing site?
2. Please share examples of situations where effective capacity management positively impacted supply chain resilience and responsiveness.
3. How does the organization allocate resources efficiently to meet potential surges in demand? How are sales orders prioritized for allocation?
4. What are the major challenges faced by the organization in capacity management and how are these challenges being addressed or mitigated? Does it have a strategy to modernize manufacturing or distribution to increase its capacity?
5. How does capacity management integrate with other functions within the supply chain, such as demand planning, inventory management, and production scheduling?

6. Explain the strategy around machine switchover, facility switchover, etc., i.e. how quickly can the operations be pivoted?

2.4 Stockout and Backorder Management

20 diagnostics

Key Performance Indicators (8)

1. Stockout Rate

   Measurement approach: *Calculate the ratio of stockouts to total order requests, then multiply by 100.*

2. Backorder Rate

   Measurement approach: *Calculate the ratio of backordered orders to total orders, then multiply by 100.*

3. Backorder Fill Rate

   Measurement approach: *Calculate the ratio of fulfilled backorders within a certain amount of time to total backorders, then multiply by 100.*

4. Stockout Recovery Time

   Measurement approach: *Measure the time from stockout occurrence to full replenishment.*

5. Stockout Impact on Revenue

   Measurement approach: *Calculate the difference between potential revenue and actual revenue during stockout periods.*

6. % Stockout Downstream Process Impact Time

   Measurement approach: *Divide the incremental completion time for the immediate downstream process due to stockouts by the average process time*

7. % Backorder Fulfillment Increment Time

   Measurement approach: *Divide the incremental fulfillment time for backorders by the average fulfillment time*

8. % Buffer Capacity

   Measurement approach: *Divide the total buffer capacity by the average daily demand*

Policies & Procedures (9)

1. How does the SOP define clear procedures for preemptively identifying and managing stockouts and backorders?
2. How does the SOP ensure timely and effective communication with customers when stockouts or backorders occur? Provide details of guidelines for notifying customers, providing estimated delivery times, and managing customer expectations.
3. How are these findings used to implement corrective actions and prevent future occurrences?
4. How does the SOP determine the priority of fulfilling backorders when inventory becomes available?
5. Provide details of a documented stockout recovery plan that outlines the steps to be taken to replenish inventory and resume normal operations after a stockout.
6. Provide details of specific KPIs or metrics defined in the SOP to measure the efficiency and effectiveness of backorder fulfillment.
7. How does the SOP address collaboration and communication with suppliers and other supply chain partners to manage stockouts and backorders effectively?

8. Provide details of a defined escalation process in the SOP to handle exceptional or critical stockout and backorder situations that require immediate attention and decision-making from higher management.
9. Provide details of mechanisms in place to gather feedback from stakeholders and implement process enhancements.

Survey Questions (3)

1. How does the organization ensure timely and accurate data collection regarding stockout and backorder situations?
2. What steps are involved in determining the root causes of stockouts and backorders?
3. Please elaborate on the cross-functional collaboration involving sales, marketing, and production teams to address stockout and backorder challenges.

2.5 Redundancy, Optionality and SKU Rationalization

16 diagnostics

Key Performance Indicators (6)

1. Supplier Diversification Rate

   Measurement approach: *Divide the number of unique top-level suppliers by the total number of suppliers, then multiply by 100*

2. Multi-Sourcing Index

   Measurement approach: *% of Critical items with multiple sources/suppliers qualified, available within 0.5x, 1x, 2x and above of median lead time*

3. Optionality Index

   Measurement approach: *% Production Capacity covered by alternative suppliers, contingency plans, and product/production flexibility*

4. Redundancy Preparedness Score

   Measurement approach: *% Fulfillment Capacity covered by redundancy of suppliers, facilities, transportation routes, and critical resources*

5. Redundancy/ Optionality Utilization Rate

   Measurement approach: *Divide the utilized capacity for redundancy/optionality by the overall capacity for redundancy/optionality during supply chain disruptions*

6. Redundancy/ Optionality Requirement Rate

   Measurement approach: *Divide the utilized capacity for redundancy/optionality by the required/desired capacity for redundancy/optionality during supply chain disruptions*

Policies & Procedures (6)

1. How does the SOP ensure that the right level of redundancy is maintained to mitigate risks without incurring unnecessary costs?
2. Provide details of guidelines for periodically reviewing the need for redundancy and adjusting it based on changing market conditions or business requirements.
3. Provide details of a well-defined SOP for evaluating and implementing optionality and flexibility in product offerings, sourcing strategies, or supply chain configurations.

4. How does the SOP ensure that supplier optionality is effectively managed to maintain a balance between risk reduction and supplier relationship development?
5. Provide details of guidelines for conducting supplier risk assessments and contingency planning.
6. How does the SOP specify how optionality and redundancy strategies are communicated within the organization and to external partners?

Survey Questions (3)

1. What criteria or factors are considered when evaluating the appropriate level of redundancy to mitigate risks effectively?
2. Please elaborate on the process for conducting scenario planning to assess how different redundancy and optionality scenarios may impact the supply chain and business performance.
3. How are contingency plans developed and implemented based on these scenarios to ensure operational continuity and responsiveness?

Interview Questions (1)

1. What are the specific long-term strategic options and short-term tactical adjustments considered to maintain supply chain agility?

3. Logistics

26 diagnostics across 3 subdomains

Subdomain	Diagnostics
Warehouse Management	6
End-to-End Network Design	14
Carrier and Vendor Management	6

3.1 Warehouse Management

6 diagnostics

Key Performance Indicators (2)

1. Inventory Accuracy

   Measurement approach: *(Actual Inventory / Recorded Inventory) x 100*

2. Order Picking Accuracy

   Measurement approach: *(Correctly Picked Items / Total Items Picked) x 100*

Policies & Procedures (2)

1. Provide details of a standard operating procedure (SOP) for receiving incoming goods, including checks for quantity, quality, and compliance with specifications.
2. Provide details of provisions in the SOP to expedite high-priority orders and manage rush shipments efficiently.

Interview Questions (2)

1. Describe the Warehouse Risk Management Strategy. How are key risks addressed and mitigated?
2. What are the specific guidelines in place to ensure warehouse management supports supply chain resiliency requirements?

3.2 End-to-End Network Design

14 diagnostics

Key Performance Indicators (2)

1. Order Fulfillment Cycle Time

   Measurement approach: *Time from order placement to delivery relative to lead time*

2. On-Time Transportation Rate

   Measurement approach: *(On-Time Deliveries / Total Shipments) x 100*

Policies & Procedures (4)

1. How often is the network design reviewed and adjusted to accommodate changing market conditions or business strategies?

2. Provide details of an SOP for determining the optimal placement and sizing of distribution centers to minimize transportation costs and improve order fulfillment speed.
3. How does the SOP cover the management and optimization of transportation routes, carriers, and modes of transportation? How are last mile delivery challenges addressed?
4. Provide details of an SOP for strategically deploying inventory across the network to ensure optimal stock levels and timely order fulfillment.

Survey Questions (5)

1. Does the organization supply directly to the provider or does it supply via a distributor / 3PL or a combination of the two? How is their transportation strategy suitable for their supply approach and how is node optionality built into their strategy?
2. What are the specific transportation guidelines in place to optimize freight movement as per lane capacity and reduce transportation costs? Explain the strategy for transportation through land, air and sea and how resilience is built into the process to deal with sudden issues (e.g., driver shortages).
3. How does the organization use network design software or tools to analyze and optimize the supply chain network (e.g., use of AI for dynamic routing)?
4. What Key Performance Indicators (KPIs) are used to measure the performance of the supply chain network design, and how frequently are these metrics reviewed?
5. How are the results of performance evaluations used to drive improvements and optimize the supply chain network?

Interview Questions (3)

1. Please provide an overview of the current end-to-end supply chain network design, including the number of distribution centers, warehouses, and transportation lanes, and how 3PLs are used.
2. What factors are considered when designing the supply chain network, and how are trade-offs between cost, service levels, and flexibility managed?
3. How does the supply chain network design account for potential disruptions, such as natural disasters or supplier issues? How does the supply chain network design align with overall supply chain resiliency goals and objectives?

3.3 Carrier and Vendor Management

6 diagnostics

Key Performance Indicators (1)

1. On-Time Delivery

   Measurement approach: *Percentage of orders delivered on time*

Policies & Procedures (1)

1. Provide details of an SOP for selecting carriers and vendors based on predefined criteria, including performance history and capabilities.

Survey Questions (2)

1. What measures are in place to ensure that vendors meet quality standards and deliver products/services on time?

2. How is the performance of carriers and vendors monitored, and what Key Performance Indicators (KPIs) are used for evaluation?

Interview Questions (2)

1. How does the organization mitigate risks associated with carrier and vendor management, such as disruptions in transportation or supply chain delays?
2. What are the contingency plans / redundancy plans in place to address unforeseen challenges with carriers or vendors such as bankruptcy or strikes / union activities?

4. Supply Chain Visibility

38 diagnostics across 4 subdomains

Subdomain	Diagnostics
Extended Supply Chain Mapping	11
Extended Supplier Collaboration and Communication	9
Tracking and Tracing Management	6
Organizational Fulfillment Performance	12

4.1 Extended Supply Chain Mapping

11 diagnostics

Key Performance Indicators (1)

1. Supplier Diversity Ratio

   Measurement approach: *Number of unique top-level suppliers divided by total number of suppliers*

Policies & Procedures (3)

1. How does the SOP detail the procedures for managing supplier information, such as contact details, capacity, and risk profiles, within the supply chain mapping system?
2. How are contingency plans and mitigation strategies developed, tested, implemented, and monitored to address identified supply chain risks?
3. Provide details of an SOP that defines the procedures for emergency response and crisis management based on insights gained from supply chain mapping.

Survey Questions (4)

1. How does the organization ensure the collection of accurate and reliable data for supply chain mapping purposes?
2. What are the specific challenges in data collection and integration that need to be addressed to improve supply chain visibility?
3. What tools or technologies are utilized to track the movement of goods and monitor supply chain activities in near real-time? Does the organization have EDI with Confirmation of Availed to Promised quantities?
4. How are incidents communicated to relevant stakeholders, and what is the timeframe for resolution?

Interview Questions (3)

1. Please walk through the supply chain mapping process, from data collection to creating a comprehensive view of the end-to-end supply chain for all tiers of Suppliers, Distributors, Government, GPO, and Providers.
2. How is supply chain mapping used to identify and address critical dependencies, risks, and vulnerabilities in the supply chain?
3. What are the major challenges faced by the company in supply chain mapping and visibility? How are these challenges being addressed by ongoing improvement initiatives or projects?

4.2 Extended Supplier Collaboration and Communication

9 diagnostics

Key Performance Indicators (2)

1. Supplier On-Time Delivery

   Measurement approach: *(Number of orders delivered by suppliers on time/ total orders) X 100*

2. Supplier Lead Time Variability

   Measurement approach: *Percentage deviation between lead time and expected lead time*

Policies & Procedures (3)

1. Provide details of a dedicated SOP for supplier collaboration, outlining the communication channels and frequency of interactions.
2. How are critical updates and changes in demand communicated to suppliers promptly?
3. Provide details of a documented SOP for data exchange with suppliers to ensure updated visibility into inventory levels, demand fluctuations and operational schedules.

Survey Questions (1)

1. Describe the formal process for identifying and assessing supplier risks, including geopolitical, financial, and operational risks.

Interview Questions (3)

1. What guidelines does the organization have in place to handle supply chain disruptions and uncertainties through collaborative planning with suppliers?
2. Please provide examples of instances where collaborative planning with suppliers helped mitigate supply chain disruptions or recover from disasters.
3. Describe the provisions in the strategy to address supply chain uncertainties and challenges through collaborative inventory planning.

4.3 Tracking and Tracing Management

6 diagnostics

Key Performance Indicators (1)

1. Traceability Coverage

   Measurement approach: *Total number items tracked/ Total items in the supply chain*

Policies & Procedures (1)

1. How does the SOP outline the process of sharing traceability data with key stakeholders, such as suppliers, logistics partners, and customers, to ensure end-to-end visibility?

Survey Questions (2)

1. How does the organization measure the accuracy and reliability of tracking information throughout the supply chain? Which metrics are used for this evaluation?

2. What methodologies and technologies does the organization use to enhance supply chain visibility and improve tracking accuracy in the healthcare supply chain? Are there mechanisms to track inventory levels with distributors and providers / customers?

Interview Questions (2)

1. Please walk through the tracking & tracing management process, from data collection to monitoring and incident response.
2. Describe the specific protocols for addressing incidents that could potentially lead to supply chain disruptions.

4.4 Organizational Fulfillment Performance

12 diagnostics

Key Performance Indicators (3)

1. Order Fulfillment Accuracy (OTIF)

   Measurement approach: *(Number of orders fulfilled accurately without any errors/ Total orders) X 100*

2. On-Time Delivery

   Measurement approach: *(Number of orders delivered to customers on time/ total orders) X 100*

3. Fulfillment Impact Insulation Capacity

   Measurement approach: *# of days the Supplier is able to insulate customer from supply chain disruptions*

Policies & Procedures (3)

1. How are risk assessments conducted collaboratively across relevant business units to develop risk mitigation strategies?
2. How does the SOP outline procedures for developing contingency plans to address potential supplier disruptions and ensure continuity of order fulfillment?
3. How are cross-functional teams involved in developing and executing fulfillment contingency plans?

Survey Questions (2)

1. What are the specific KPIs used to monitor and report fulfillment performance for different product categories or shipments?
2. What are the guidelines for generating fulfillment management reports, dashboards, or visualizations to facilitate decision-making and identify potential improvements?

Interview Questions (4)

1. Please walk through the fulfillment process in place, from order placement with suppliers, production scheduling to delivery of finished goods. Does the organization consider the drawbacks of selling too much to its stability?
2. What mechanisms are in place to quickly identify and address issues impacting fulfillment?
3. Please provide some recent examples of fulfillment challenges, the reasons behind them (e.g., having to pick up the slack of failing competitors) and strategy adopted to combat it.
4. Please describe ongoing improvement initiatives or projects aimed at enhancing fulfillment capabilities and supply chain visibility.

5. Supplier Management

25 diagnostics across 3 subdomains

Subdomain	Diagnostics
Supplier Performance Management	17
Supplier Geographic Diversity	4
Supplier Selection and Qualification Processes	4

5.1 Supplier Performance Management

17 diagnostics

Key Performance Indicators (1)

1. Lead Time Variability

   Measurement approach: *Average coefficient of variation of lead time*

Policies & Procedures (5)

1. Provide details of a formal process to escalate performance issues and collaborate with suppliers on improvement plans.
2. Provide details of defined quality standards and requirements that suppliers must meet.
3. Provide details of contingency plans in place to manage risks related to supplier performance.
4. How is the impact of supplier risks evaluated on overall supply chain resilience?
5. Provide details of guidelines for fostering collaborative relationships with key suppliers.

Survey Questions (6)

1. How frequently are supplier performance evaluations conducted, and what key metrics are measured?
2. How does the organization ensure that suppliers meet the required quality standards for products or services?
3. Please share examples of instances where supplier quality management guidelines positively impacted supply chain resilience.
4. Describe the formal risk assessment process to identify potential risks associated with suppliers. How does the organization foster collaborative relationships with global suppliers that operate outside the US?
5. Walk through the strategy in place to deal with monopolistic suppliers with examples.
6. Does the organization use a sub tier supplier risk score that informs tier-1 suppliers' composite risk score? How is this risk score structured and calculated?

Interview Questions (5)

1. Please explain the process of supplier performance evaluation within the organization.
2. How are supplier performance issues identified, and what actions are taken to address underperforming suppliers?

3. Please provide examples of instances where awareness of supplier risk management strategy positively impacted supply chain resilience.
4. What are the major challenges faced by the company in supplier performance management? How are these challenges being addressed?
5. Describe any ongoing improvement initiatives or projects aimed at enhancing supplier performance management capabilities.

5.2 Supplier Geographic Diversity

4 diagnostics

Policies & Procedures (2)

1. Provide details of specific strategies or initiatives outlined in the SOP to promote supplier diversity and reduce dependence on suppliers concentrated in certain geographic areas.
2. How does the organization's SOP include a comprehensive risk assessment process to identify and assess geographic risks in the supplier base?

Interview Questions (2)

1. Describe the contingency plans and risk mitigation strategies in place to address potential disruptions caused by supplier geographic concentration.
2. Describe ongoing improvement initiatives aimed at enhancing supplier diversification and risk mitigation efforts.

5.3 Supplier Selection and Qualification Processes

4 diagnostics

Policies & Procedures (1)

1. Provide details of a risk-based approach outlined in the SOP for supplier qualification, which considers factors like geographic location, industry concentration, and criticality of supplied materials or services.

Survey Questions (1)

1. How does the organization assess supplier capabilities, capacity, and financial stability during the selection process?

Interview Questions (2)

1. Please walk through the supplier selection process in place, including the criteria used for evaluating potential suppliers and alternate / backup suppliers.
2. Describe any ongoing improvement initiatives aimed at enhancing the supplier qualification and management process.

6. Risk Management and Contingency Planning

91 diagnostics across 6 subdomains

Subdomain	Diagnostics
Business Continuity and Mitigation Planning	25
Supply Chain Event Monitoring	21
Enterprise Risk Management Strategy & Practices	17
Risk Identification and Awareness	15
Third-party Risk Management Practices And Standards	8
Product Recalls	5

6.1 Business Continuity and Mitigation Planning

25 diagnostics

Key Performance Indicators (3)

1. Business Continuity Coverage Rate

   Measurement approach: *% Relevant Incidents covered by SOPs/Protocol/Training*

2. Business Continuity Adherence Rate

   Measurement approach: *% Successful & Timely Response to Relevant Incidents to maintain Business Continuity*

3. % Disruption Impact

   Measurement approach: *% Impact to Production, Fulfillment and Quality during Supply Chain Disruptions*

Policies & Procedures (8)

1. How does the SOP outline the process of developing and maintaining a robust business continuity plan?
2. How are recovery strategies and contingencies designed to address potential disruptions?
3. Provide details of an SOP for managing crises and responding to incidents, including protocols for emergency response and escalation.
4. How are response teams and communication channels established to ensure timely and effective incident management?
5. Provide details of an SOP for regularly testing and exercising business continuity plans to validate their effectiveness.
6. Provide details of an SOP for recovering critical operations and resuming normal functions after a disruption.
7. How are recovery teams and resources allocated to expedite the resumption process?
8. How are employees educated on their roles and responsibilities during disruptions?

Survey Questions (8)

1. How is the Business Impact Analysis conducted to assess the potential consequences of disruptions on the organization for all manufacturing sites and warehouses/distribution centers?
2. What are the specific metrics used to quantify the impact on business processes, financials, and customer service?
3. What processes are in place to continuously improve the Business Continuity & Mitigation Planning based on lessons learned from past incidents?
4. How are post-incident reviews conducted to identify areas for improvement and implement corrective actions?
5. How are critical business functions identified, and what measures are in place to ensure their uninterrupted operation during disruptions at each region / site?
6. How are crisis management teams organized, and what roles and responsibilities do they have during emergencies?
7. Describe predefined recovery strategies for different types of disruptions, such as natural disasters, cyber-attacks, or supply chain disruptions.
8. Describe mechanisms in place to keep stakeholders informed about recovery efforts and the status of critical operations. Are these self-service reports or can they be produced only on demand?

Interview Questions (6)

1. Please provide an overview of the organization's Business Continuity & Mitigation Planning process. Does it have a strategy of developing after-incident reports to formalize learnings?
2. Describe the organization's capacity (length of time) to absorb disruption and disaster recovery strategy in place?
3. Please provide examples of when their BCP was successful.
4. In what ways does the organization believe it is following standard, best, or innovative practices in this domain? Elaborate with evidence
5. What is the organization's incident response and crisis management plan? Does the organization have standardized agile response plans for known and potential events?
6. How are resources allocated during business disruptions to support critical functions and recovery efforts?

6.2 Supply Chain Event Monitoring

21 diagnostics

Key Performance Indicators (6)

1. % Event Detection

   Measurement approach: *% of Supply Chain Events detected before Event Impact*

2. Event Detection Time

   Measurement approach: *Time to detect Supply Chain Events relative to Time of Event Impact*

3. Event Response Time

   Measurement approach: *Time to Response for Supply Chain Events*

4. Event Recovery Time

Measurement approach: *Time to Recovery for Supply Chain Events*

5. Event Communication Time

   Measurement approach: *Time to Internal & External Communication for Supply Chain Events*

6. Event Recovery Communication Time

   Measurement approach: *Time to Accurate Internal & External Communication for Supply Chain Event Recovery*

Policies & Procedures (8)

1. Provide details of an SOP for real-time monitoring and tracking of supply chain events and disruptions.
2. How are different supply chain events categorized, and what are the criteria for defining their severity?
3. Provide details of an SOP for regularly monitoring market stability and analyzing potential risks and uncertainties.
4. How does the SOP outline procedures for timely and efficient detection of supply chain events?
5. How are alerts and notifications sent to relevant stakeholders to initiate a swift response?
6. Provide details of an SOP for analyzing the impact of supply chain events and formulating an appropriate response strategy.
7. How are response plans developed and executed to mitigate the impact of supply chain incidents?
8. How does the SOP include scenario planning exercises to prepare for various market stability scenarios?

Survey Questions (7)

1. What external factors are considered when evaluating market stability, such as economic conditions, geopolitical events, or regulatory changes?
2. What tools and technologies are used for supply chain event monitoring? How do these tools help in real-time tracking and analysis of events?
3. How are data sources integrated into the event monitoring system to capture relevant supply chain data?
4. How is data from supply chain events analyzed to identify trends and patterns? What performance metrics are monitored to assess the effectiveness of event monitoring?
5. How are dashboards or reports used to communicate supply chain performance and event monitoring results to relevant stakeholders?
6. What processes are in place to continuously improve supply chain event monitoring capabilities based on lessons learned from past incidents? Provide an example where the organization implemented it's mitigation, response and recovery practices to tackle a crisis.
7. Provide a detailed overview of the changes in supply chain event monitoring pre and post COVID-19.

6.3 Enterprise Risk Management Strategy & Practices

17 diagnostics

Policies & Procedures (7)

1. How does the organization avoid single points of failure throughout their operations and minimize risk?
2. How are patient safety incidents or near-misses reported and analyzed to prevent future occurrences?
3. Provide details of an SOP for monitoring key risk indicators (KRIs) that provide early warnings of potential risks.

4. How are KRIs analyzed and reported to relevant stakeholders for timely action?
5. How are employees periodically updated on risk-related policies and procedures?
6. Provide details of an SOP for the governance and oversight of ERM activities, including risk committees and reporting structures.
7. How are risk management successes and failures analyzed to drive organizational learning?

Survey Questions (7)

1. What mechanisms are in place for regular communication and updates on risk exposure and mitigation efforts to senior management?
2. How are periodic assessments used to ensure the relevance and adequacy of risk management practices?
3. How does the organization use technology or software tools to support Enterprise Risk Management activities?
4. How is risk data integrated into the overall risk management system for analysis and reporting?
5. How does the organization ensure compliance with relevant regulatory requirements and industry standards related to risk management?
6. Describe the organization's defined risk appetite and tolerance statement? How is it communicated across the organization?
7. How are risk thresholds determined, and what actions are taken when risks exceed these thresholds?

Interview Questions (3)

1. Please provide an overview of the organization's Enterprise Risk Management (ERM) framework and strategy. Please provide evidence of accreditations or certifications related to data security.
2. How is Enterprise Risk Management integrated into the organization's strategic planning and decision-making processes?
3. How are risk considerations factored into capital allocation and resource allocation decisions?

6.4 Risk Identification and Awareness

15 diagnostics

Policies & Procedures (4)

1. Provide details of an SOP (or risk registry/taxonomy) for systematically identifying potential risks within the healthcare supply chain.
2. How does the SOP address protocols for communicating identified risks and their potential consequences to relevant stakeholders?
3. How are employees and stakeholders made aware of potential risks and their roles in risk mitigation?
4. How does the SOP outline cross-functional collaboration and coordination to ensure resilience through comprehensive risk identification and mitigation?

Survey Questions (8)

1. How is the organization's risk monitoring process structured? How frequently are risks reevaluated to assess changes in their likelihood or impact?
2. How are specific training programs or initiatives used to educate employees about various risks and their role in risk management? Is there a dedicated resiliency resource, team or tool in place?

3. What processes are in place to continuously improve risk identification and awareness based on lessons learned from past incidents?
4. How are post-incident reviews conducted to identify areas for improvement and implement corrective actions?
5. Describe specific tools or methodologies used to capture and document identified risks.
6. How does the organization assess and prioritize identified risks based on their potential impact and likelihood of occurrence?
7. How does the organization identify and address compliance and regulatory risks specific to its industry and operations?
8. Describe processes to monitor changes in regulations and ensure compliance with relevant laws.

Interview Questions (3)

1. What process is used to segment risks based on what is being protected? Does the logic consider criticality to patient outcomes and ability to absorb disruptions?
2. To what extent is risk management integrated into the decision-making processes across different business functions?
3. Describe specific risk-related considerations during strategic planning and resource allocation.

6.5 Third-party Risk Management Practices And Standards

8 diagnostics

Policies & Procedures (7)

1. How does the SOP address due diligence practices for evaluating and selecting third-party partners based on risk considerations?
2. How are potential risks and vulnerabilities factored into the vendor selection process?
3. Provide details of an SOP for including risk management clauses and requirements in contracts with third-party partners.
4. How does the SOP outline procedures for continuously monitoring and assessing risks associated with third-party partners?
5. How is real-time data and feedback utilized to identify emerging risks and potential changes in risk profiles?
6. Provide details of an SOP for developing contingency plans to manage disruptions caused by third-party partners.
7. How are contingency plans tested and updated periodically to enhance responsiveness?

Interview Questions (1)

1. Describe contingency plans to ensure business continuity in case of disruptions caused by third-party vendors.

6.6 Product Recalls

5 diagnostics

Policies & Procedures (4)

1. How does the SOP outline procedures for promptly identifying and assessing potential product defects or safety issues?

2. How are product quality incidents reported, documented, and escalated for further investigation?
3. Provide details of an SOP for communicating recall notices and their implications to consumers, retailers, and regulatory authorities in a timely and effective manner. Aside from recalls, has the organization issued 'Voluntary Actions' or 'Safety Notices' in the recent past?
4. Provide details of an SOP for conducting root cause analysis to identify the source of product defects or safety issues.

Interview Questions (1)

1. Please walk through the organization's product recall process. How are potential product safety issues identified, and what triggers a product recall? Please shed light on if there have been recalls due to innovation and new product introduction, not due to quality issues.

7. Operational Health

12 diagnostics across 2 subdomains

Subdomain	Diagnostics
Performance Metrics and Management	8
Process Efficiency Management and Critical Product Workflows	4

7.1 Performance Metrics and Management

8 diagnostics

Key Performance Indicators (2)

1. On-Time Delivery

   Measurement approach: *(Number of On-Time Deliveries / Total Number of Deliveries) * 100*

2. % Perfect Order Rate

   Measurement approach: *% Orders fulfilled without issues or errors*

Policies & Procedures (2)

1. Provide details of an SOP for identifying, selecting, and defining relevant KPIs aligned with supply chain objectives.
2. How does the SOP address the process of continuously improving supply chain performance based on data-driven insights?

Survey Questions (2)

1. What KPIs does the organization feel are most emblematic of resiliency planning and monitoring?
2. Please explain the accountability structure in place to ensure that relevant stakeholders take ownership of specific KPIs.

Interview Questions (2)

1. Please provide an overview of the performance measurement processes used within the organization, especially in the context of supply chain and logistics operations.
2. How does the organization foster a culture of continuous improvement in the context of performance management?

7.2 Process Efficiency Management and Critical Product Workflows

4 diagnostics

Key Performance Indicators (3)

1. Order Lead Time Variability

   Measurement approach: *CoV of Order Lead Time*

2. Overall Fulfillment Process Variability

   Measurement approach: *CoV of Overall Fulfillment Process Time*

3. Critical Process Recovery Time

Measurement approach: *Avg. Time to Recovery from Process Failures/Incidents*

Policies & Procedures (1)

1. Provide details of an SOP for identifying critical healthcare products and defining special handling and workflow requirements.