ZYCUS
COGNITIVE PROCUREMENT

SUPPLIER RISK AND PERFORMANCE MANAGEMENT: BEST PRACTICES FOR KPI CREATION

NEED FOR SUPPLIER RISK AND PERFORMANCE MANAGEMENT

One of the most followed best practices in business is to create a robust process to identify and effectively manage your growing supply chain. A typical supply chain today, includes multiple partners spread across numerous organizations and geographies under different jurisdictions. Third-party relationships have a much more profound and far-reaching impact on the strategy, operations and reputation of an organization.

In the wake of a more-than-ever interconnected world, the potential failure points and levels of risks posed by the third parties, have shown a rapid increase. This may be as simple as non-conformance with on-time delivery of goods that meet the required specifications. Or, it can also be increasing supply chain complexities to the extent that companies remain unaware of who their suppliers were subcontracting to. The number of third parties and suppliers that a large organization works with, can run into tens or hundreds of thousands creating a web of complex relationships. As the business and service requirements become more extensive, combating supplier risks along with monitoring their performance against contract requirements become indispensable.

Robust risk management requires assessing and mitigating both external and internal risks. External risks could be a pandemic, dynamic trade relationships with particular countries, disruptions caused by natural disasters, regulatory changes, the financial status of suppliers, to name a few. On the other hand, internal risks include manufacturing, business, planning, contingency, and cultural risks, among others.

A **structured approach to supplier risk management across the supplier sourcing cycle has multiple steps:**

A) Identification of current and potential risk sources using breakthrough technologies like AI

B) Assessment of level of risk based on multiple data points and prioritization by probability and impact

C) Ensuring the supplier is meeting the performance criteria, e.g. service levels and quality laid down in the contract

D) Development of a comprehensive view of supplier risk profiles

E) Identification of room for improvement and initiation of corrective actions

F) Diversification of suppliers and the creation of an alternate base

G) Periodic review of risks and identification of changes in supply chain

Therefore it is essential that the buyer monitors and manages the suppliers on an ongoing basis and takes corrective action and/or preventive measures for problems as and when they arise. For example, if a supplier starts faces unstable financial conditions, he will begin to face difficulties in discharging his obligations. If this happens, there is a very high chance that the supplier will start making behind-the scenes cutbacks irrespective of what may or may not be specified in the contract. This, in turn, affects the supply continuity, tarnishing the brand of the organization concerned. Thus, the key is to take corrective and preventive measures for problems when they are still minor and, therefore, easier to resolve. To take these corrective and preventive measures in time and make provisions for alternative supply mechanisms, the buyer needs some early warning regarding the financial strain faced by the supplier. This can be effectively done by a tool that can monitor the symptoms of financial strain in the form of Key Performance Indicators (KPIs).
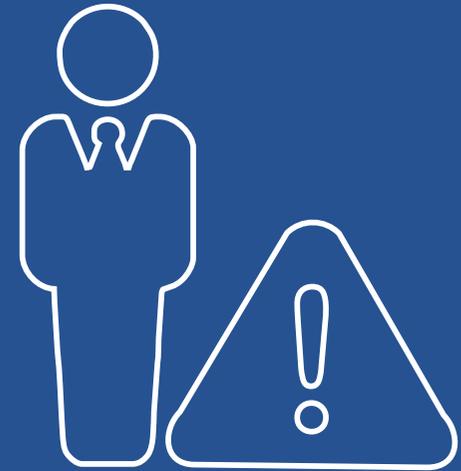
KEY PERFORMANCE INDICATORS

There are two different types of KPIs that are used for supplier risk and performance scoring:

1 **KPIs that gather factual (objective) information about Supplier Risk and Performance:**

This type of information can usually be obtained from users and systems within the organization in the form of management information. It is good practice to be as structured and consistent as possible in the approach to risk assessment and performance monitoring:

For example:

- Root cause and Non-conformance incidents
- Financial health of suppliers
- Physical location of suppliers and relevant facilities
- Lead time from order
- Product Availability
- Quality standards being met
- Pricing compliance
- Mean time between failure
- Percentage of incoming rejects (delivery accuracy)
- On-time delivery performance against agreed delivery lead times
- Payment terms

2 KPIs that obtain the (subjective) experiences of the buyer while dealing with the Supplier:

Though these too must be as objective as possible, due to human perception involved while measuring experience, these KPIs inevitable are used in real-life situations to capture subjective data:

For example:

- Impact of political events and technology change on suppliers
- Reputational risk posed
- Service Quality (against agreed SLAs)
- Relationship/ Account Management
- Customer service response time
- Accessibility and responsiveness of account management

Along with internal users of the organization, supplier contacts should also be invited for evaluating certain KPIs that the suppliers are better equipped to respond to or that require inputs from both sides.

Beside the ones stated above, there are a number of key factors which can be used to assess supplier risk and performances and which can be used as a benchmark for determining whether good practice is being achieved in specific situations.

Good quality Key Performance Indicators (KPIs) should:

- Be Discrete
- Be Easy to Understand
- Provide sufficient data to facilitate swift analysis of the current situation
- Be customizable to your organization's business requirements
- Be reportable on an individual and aggregate level for transparent decision taking
- Be trackable for all the concerned stakeholders

The Supplier Management team should assess the relative importance of each KPI, assign numerical weighting and agree on scoring guidance. It is also advisable to be aware of the so-called 'soft' issues frequently encountered in other contexts. These include considerations such as ethical issues, sustainability issues, professional relationships, cultural fit and innovation.

COMPONENTS OF WORLD-CLASS SUPPLIER RISK AND PERFORMANCE MANAGEMENT SOLUTION

- An enterprise-wide approach to supplier management with a centralized process and database for smarter decisions

- Verification and management of information furnished by both potential as well as operational suppliers

- Customized risk and performance programs consisting of configurable risk assessments and performance scorecards

- A comprehensive view of supplier profiles based on multiple parameters- finance, environment, geography, spend, quality and fulfilment, cyber among others

- Supplier segmentation based on user-defined metrics

- Well-defined processes for mitigating risks through supplier development and contingency plans

- Continuous assessment of supplier risks throughout the lifecycle of suppliers

- A reporting dashboard providing consistent and measurable compliance standards
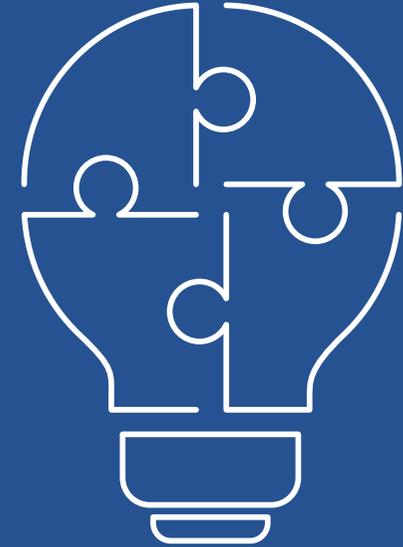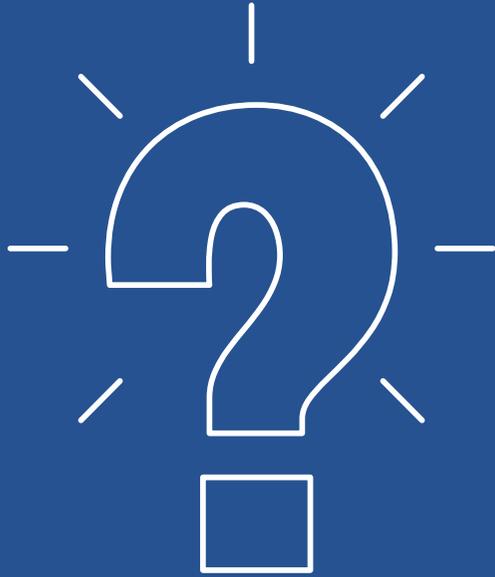
WHY ZYCUS?

Zycus' Supplier Risk and Performance Management tool facilitates optimization and improvement of your supplier base with technology-led risk intelligence to identify, manage and monitor multiple risks. The entire process is made effective in the following ways:

- **AI-led supply market intelligence** covering a wide range of risk parameters including natural, financial, geopolitical, operational, legal, regulatory and IT risks

- **Multiple parameters** - external and internal including performance metrics for scoring

- Holistic **supplier profiling** based on risk exposures and performance parameters

- A comprehensive view of risk and performance trends through an **integrated dashboard**

- **Configurable risk assessment** workflows and supplier scorecards

- **Collaborative development programs** based on risk and performance scores

- **Rapid issue resolution** through Supplier Corrective Action Requests (SCAR)

- Continuous monitoring through **alerts and notifications**

BEST PRACTICE RECOMMENDATIONS FOR KPI CREATION

Based on the wealth of information derived from Zycus' knowledge repository, the following content shows the structure of some best practices KPIs and Scorecards that can be created using Zycus' Supplier Risk and Performance Management solution. It also highlights the tool's capabilities vis-a-vis the logic of risk profiling and scoring of suppliers that can be configured within the tool.

Below is the snapshot of some basic KPIs recommended by Zycus based actual customer usage patterns:

Sr. No.	KPI	Questions	Weightage	Formula	KPI targets		
1	On time Delivery (OTD)	Q1 - Total no. of orders placed	None	(Q2/Q1)*100	<= 89		Problem Area
		Q2 - Orders on time	None		>89 <= 94		Meets the target
					> 94		OverAchieves the target
2	First Pass Yield or Quality (FPY)	Q1 - Quantity received	None	(Q2/Q1)*100	<= 89		Problem Area
		Q2 - Quantity accepted	None		>89 <= 94		Meets the target
					> 94		OverAchieves the target
3	COST	Q1 - Competitiveness of price to other suppliers	45	KPI Score = Sum of (Question Score/Maximum Question Score * Question Weightage)	1.0 - 2.5		Problem Area
		Q2 - Level of customer resources and involvement used to support the supplier	30		3.0 - 3.5		Meets the target
		Q3 - Cost of unplanned trips for customer resources	10		4.0 - 5.0		OverAchieves the target
		Q4 - Supplier Creativity - Supplier consistently initiates projects to reduce Total Cost of Ownership (TCO) (examples include cost reduction, process improvement, new ef?ciencies, or other bene?t)	15				
4	RESPONSIVENESS	Q1 - Responsiveness of Design/technical resources to customer	40	KPI Score = Sum of (Question Score/Maximum Question Score * Question Weightage)	1.0 - 2.5		Problem Area
		Q2 - Local Business Manager/Delivery Manager facilitates closure of issues, follow-up of action plans , monthly reviews	30		3.0 - 3.5		Meets the target
		Q3 - Account Manager responsiveness to provide SOW, follow-up on ?nancial aspects, answer IQN requests /PO related questions, ownership of SIP plan	30		4.0 - 5.0		OverAchieves the target

Sr. No.	KPI	Questions	Weightage	Formula	KPI targets	
5	ASSURANCE OF SUPPLY	Q1- Consultant attrition on customer projects	15	KPI Score = Sum of (Question Score/Maximum Question Score * Question Weightage)	1.0 - 2.5	Problem Area
		Q2 - Impact of attrition to customer project	30		3.0 - 3.5	Meets the target
		Q3 - Ramp Staf?ng to meet requirement for new and/or existing projects	15		4.0 - 5.0	OverAchieves the target
		Q4 - Performance Measure: On time delivery/execution for project milestones (OTD)	30			
		Q5 - Export Control Awareness and Compliance	10			
6	QUALITY	Q1 - Quality of the work/deliverables	70	KPI Score = Sum of (Question Score/Maximum Question Score * Question Weightage)	1.0 - 2.5	Problem Area
		Q2- Support of Internal / Customer Audits & Certi?cations	10		3.0 - 3.5	Meets the target
		Q3- Supplier's internal quality processes and relevant Certi?cations	20		4.0 - 5.0	OverAchieves the target

Below is the snapshot of advanced KPIs with conditional scoring logic recommended by Zycus based on actual customer usage.

Sr. No.	KPI	Questions	Weightage	Conditional Scoring		Formula	KPI targets	
1	Quality-Parts Per Million(PPM)	Q1 - Ordered Date	None	If calculated PPM is	Then Value	(Q4/Q3)*1000000	<= 60.00	Problem Area
		Q2 - Receipt Date	None	<= 1.00	100.00			
		Q3 - Total quantity of parts received	None	> 1.00 and <= 25.00	90.00		> 60.00 and <= 85.00	Meets the Target
		Q4 - Quantity of parts rejected	None	> 25.00 and <= 50.00	80.00			
				> 50.00 and <= 100.00	60.00			
				> 100.00 and <= 250.00	40.00		> 85.00	OverAchieves the Target
				> 250.00 and <= 500.00	20.00			
				> 500.00	0.00			

Sr. No.	KPI	Questions	Weightage	Conditional Scoring		Formula	KPI targets	
2	Operational Risk	Q1 - When was the supplier onboarded?	None			(Q3+Q4+Q5)/3	<= 65.00	Problem Area
		Q2 - Does the supplier conduct regular ?nance audit and has ?nance certi?cations. Explain	None					
		Q3 - What is the total % of staff trained in critical risk management techniques?	None					
		Q4 - Are risk management plans in place?	None	Choice	Value		> 65.00 and <= 90.00	Meets the Target
				Yes	10.00			
				No	0.00			
		Q5- Is the supplier ISO certi?ed?	None	Choice	Value		> 90.00	OverAchieves the Target
				Yes	0.00			
				No	0.00			
		Q6 - What date did supplier last revise its risk plan?	None					
3	Catastrophic Risk	Q1 - Is the supplier located in an area prone to catastrophic events (Flood, Earthquake)	None	Choice	Value	(Q1+Q2+Q3+Q4)/4	<= 75.00	Problem Area
				Yes	0.00			
				No	100.00			
		Q2 - If Yes, then are there any past events which has caused disruption to supply chain process?	None	Choice	Value		> 75.00 and <= 90.00	Meets the Target
				Yes	0.00			
				No	100.00			
		Q3 - What is the probabilty of any such event happening in the future?	None	Choice	Value			
				High	80.00			
				Medium	90.00			
				Low	100.00		> 90.00	OverAchieves the Target
		Q4 - Does the supplier have a mitigation plan in place to avoid any inconvenience due to occurance of such events?	None	Choice	Value			
				Yes	100.00			

Sr. No.	KPI	Questions	Weightage	Conditional Scoring		Formula	KPI targets	
4	Transparency and Ethics	Q1 - Does the Supplier achieves SMETA 4 Pillars compliance ?	None	Choice	Value	(Q1+Q2+Q3+Q4+Q6)/5	<= 50.00	Problem Area
				Yes	4.00			
				No	0.00			
		Q2 - Does the Supplier support Supplier Diversity Program via enrollment in the Global Supplier Diversity Portal ?	None	Choice	Value			
				Yes	2.00			
				No	0.00			
		Q3 - Does the Supplier actively engage with and sources from diverse suppliers ?	None	Choice	Value		> 50.00 and <= 75.00	Meets the Target
				Yes	2.00			
				No	0.00			
		Q4 - Has the Supplier developed and executed an environmental sustainability system to assess environmental aspects and impacts, and proactively takes action to improve environmental impacts year over year ?	None	Choice	Value			
				Yes	4.00			
		Q5 - Attach the Environment Sustainbility Plan , with a brief description in the text box below.	None	No	0.00		> 75.00	OverAchieves the Target
		Q6 - Does the Supplier demonstrate consistency between words and actions, and conducts business activities with the appropriate personnel and functional departments ?	None	Choice	Value			
				Yes	4.00			
				No	0.00			

Sr. No.	KPI	Questions	Weightage	Conditional Scoring		Formula	KPI targets	
5	Financial Risk	Q1 - Please select the organization type	None	Choice	Value	(Q1+Q2+Q3+Q4+Q5)/5	<= 75.00	Problem Area
				Public	95.00			
				Private	85.00			
				Partnership	75.00			
				Individual Enterpreneur	65.00			
		Q2 - Do the company have bankruptcy indicator	None	Choice	Value			
				Yes	95.00			
				No	65.00			
		Q3 - Please con?rm if the organization can deliver goods with bankruptcy indicator	None	Choice	Value		> 75.00 and <= 90.00	Meets the Target
				Yes	95.00			
				No	55.00			
		Q4 - Do the company have lawsuits ?led against it due to ?nancial exposure	None	Choice	Value			
				Yes	65.00			
				No	95.00			
		Q5 - What is the credit Rating of the company	None	Choice	Value		> 90.00	OverAchieves the Target
				A++	95.00			
				A	95.00			
				A-	85.00			
				B++	80.00			
				B	75.00			
				B-	70.00			
				C	65.00			
				C-	60.00			

Sr. No.	KPI	Questions	Weightage	Conditional Scoring		Formula	KPI targets	
6	Innovation and Design	Q1- Does the Supplier proactively identi?es and presents at least two new opportunities (process or product) for innovation.	None	Choice	Value	(Q1+Q2+Q3)/3	<= 75.00	Problem Area
				Yes, Atleast 2 New Oppurtunities	100.00			
				No, Either 1 New Oppurtunity or No Oppurtunity	20.00			
		Q2 - Number of Innovation Ideas Presented by the Supplier ?	None	Choice	Value		> 75.00 and <= 90.00	Meets the Target
				0	20.00			
				1	40.00			
				2	60.00			
				More than 2	95.00			
		Q3 - Has atleast one of the identi?ed innovation ideas been fully approved and implemented and/or in progress of implementation in 2013 ?	None	Choice	Value		> 90.00	OverAchieves the Target
				Yes	95.00			
				In Progress	80.00			
				No	60.00			
7	IT Risk Asssessment	Q1 - Are the supplier data centers SSAE 16 SOC 2 Type certi?ed?	None	Choice	Value	(Q1+Q2+Q3+Q4)/4	<= 30.00	Problem Area
				Yes	100.00			
				No	0.00			
		Q2 - What is the total % of staff trained in critical risk management techniques?	None					
		Q3 - Does the supplier have Business Continuity and Disaster Recovery process in place?	None	Choice	Value		> 30.00 and <= 75.00	Meets the Target
				Yes	100.00			
				No	0.00			
		Q4 - What is the total cycle time (in hours) from discovery of a control de?ciency to risk acceptance decision?	None	If response is	Then Value		> 75.00	OverAchieves the Target
				<= 24.00	100.00			
				> 24.00 and <= 48.00	50.00			
				> 48.00	0.00			

| Sr. No.	KPI	Questions	Weightage	Conditional Scoring		Formula	KPI targets	
				Choice	Value			
				Often	100.00			
8	Service Quality	Q1 - Does the supplier determine the root cause of the problem?	None	Sometimes	66.00		<= 75.00	Problem Area
				Rarely	33.00			
				Never	0.00			
		Q2 - Does the supplier take appropriate corrective actions?	None	Choice	Value			
				Yes	100.00		> 75.00 and <= 90.00	Meets the Target
				No	25.00	(Q1+Q2+Q3+Q4+Q5)/5		
		Q3 - Does the supplier take appropriate preventive actions?	None	Choice	Value			
				Yes	100.00			
				No	25.00			
		Q4 - Does the supplier respond to the CAPA form in detail?	None	Choice	Value			
				Yes	100.00			
				No	25.00		> 90.00	OverAchieves the Target
		Q5 - Does the supplier provide support 24x7?	None	Choice	Value			
				Yes	100.00			
				No	25.00			

Below is the snapshot of some scorecards recommended by Zycus leveraging the KPIs listed above. Supplier Relationship Managers and Procurement professionals can use some or all of the below mentioned scorecards depending on their needs.

BEST PRACTICE SCORECARDS

Sr. No.	Scorecard	KPI's in the scorecard	Weightage	Formula	Scorecard targets	
1	OTD, FPY & SER	SER	20		<= 89	Problem Area
		On Time Delivery	40		>89 <= 94	Meets the target
		First Pass Yield	40		> 94	OverAchieves the target
2	Risk Scorecard	Catastrophic Risk	20	(0.2*KPI1)+(0.4*KPI2)+(0.2*KPI3)+(0.2*KPI4)	<= 89	Problem Area
		Financial Risk	40			
		Operational Risk	20		>89 <= 94	Meets the target
		IT Security Risk	20		> 94	OverAchieves the target
3	Service Compliance	Customer Service - Complaints and Resolution	50	(0.5*KPI1)+(0.25*KPI2)+(0.25*KPI3)	<= 63	Problem Area
		Responsiveness	25		>63 <= 81	Meets the target
		Service Quality	25		> 81	OverAchieves the target
4	Ethics and Principle Compliance	Transparency and Ethics	50	(0.5*KPI1)+(0.5*KPI2)	<= 63	Problem Area
					>63 <= 81	Meets the target
		Labor Ethics	50		> 81	OverAchieves the target
5	Innovation and Cost Reduction	Innovation and Design	40	(0.4*KPI1)+(0.6*KPI2)	<= 89	Problem Area
					>89 <= 94	Meets the target
		Cost	60		> 94	OverAchieves the target
6	Supplier Assessment Scorecard	Catastrophic Risk	10	(0.1*KPI1)+(0.15*KPI2)+(0.1*KPI3)+(0.1*KPI4)+(0.05*KPI5)+(0.05*KPI6)+(0.05*KPI7)+(0.05*KPI8)+(0.05*KPI9)+(0.15*KPI10)+(0.15*KPI11)	<= 89	Problem Area
		Financial Risk	15			
		Operational Risk	10			
		IT Security Risk	10			
		Customer Service - Complaints and Resolution	5			
		Responsiveness	5		>89 <= 94	Meets the target
		Service Quality	5			
		Transparency and Ethics	5			
		Labor Ethics	5			
		On Time Delivery	15		> 94	OverAchieves the target
		First Pass Yield	15			

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Zycus is a leading global provider of A.I. powered Source-to-Pay suite of procurement performance solutions. Our comprehensive product portfolio includes applications for both strategic and operational aspects of procurement- eProcurement, eInvoicing, Spend Analysis, eSourcing, Contract Management, Supplier Management, Financial Savings Management, Project Management, Request Management and Merlin A.I. Suite. The Merlin A.I. Suite is a unique platform consisting of pre-packaged intelligent BOTs to automate run-of-the-mill procurement and A.P. tasks with smart, predictive suggestions.

Our spirit of innovation and our passion for helping procurement create greater business impact are reflected among the hundreds of procurement solution deployments that we have undertaken over the years. We are proud to have as our clients, some of the best-of-breed companies across verticals like Manufacturing, Automotives, Banking and Finance, Oil and Gas, Food Processing, Electronics, Telecommunications, Chemicals, Health and Pharma, Education and more.
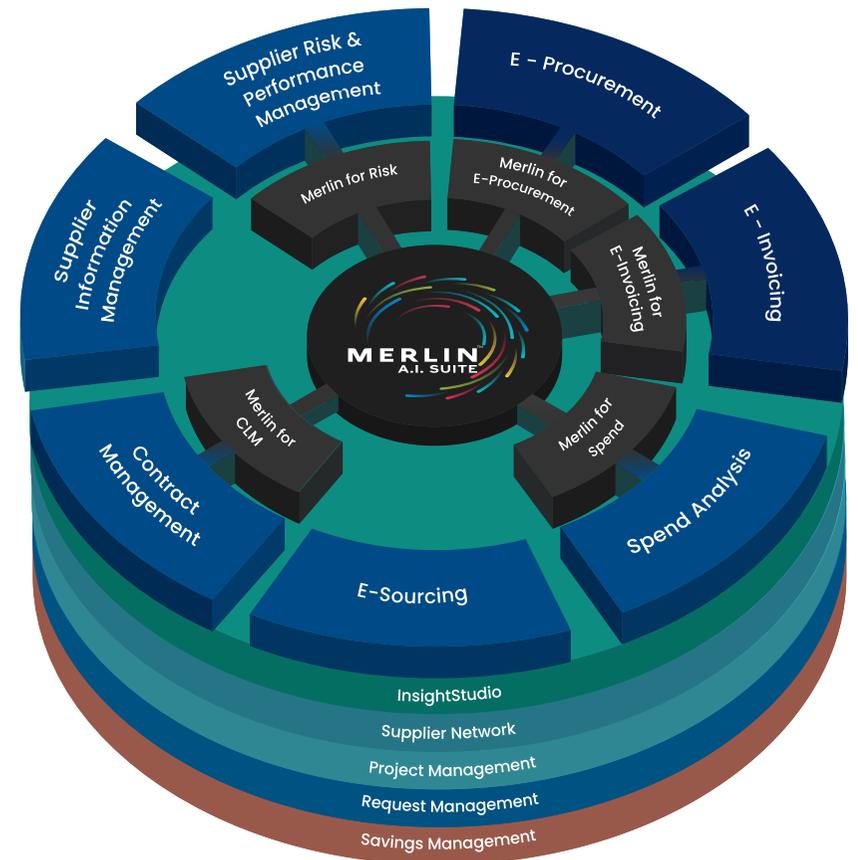
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