

# Supplier Portfolio Management: Strategies for Design and Growth

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## Abstract

The analysis identifies opportunities to design and grow supplier portfolio management. Recent advances in process automation enable better coordination across a complex set of enterprise participants. By deploying emerging solutions and practices, the supplier portfolio management can mature. Typically overseen by CFO or COO, the set of providers are subject to extensive due diligence during the pre- and post-award stages. Supply management professionals assess the landscape of current and prospective providers to determine viable sourcing options. The goal is to set-up, manage and complete initiatives to maximize success. As a result, alignment, compliance, consistency, focus and scale are better accomplished. Recent advances in autonomous sourcing, robotic process automation, cloud transformation and agile application development can accelerate the benefit realization timeline. In order to identify, evaluate and manage offerings from a range of suppliers, an organization needs to design and grow an effective approach. As new suppliers are added to the portfolio, other suppliers will roll-off. This article provides recommendations for supplier portfolio practices. As the portfolio and teams mature, dynamic business conditions attract new and exciting offerors. Existing supplier relationships may require less hand-holding but still need to be monitored and their performance reported. Obsolete providers are curtailed. In a similar vein, the experience, capability and composition of team members will evolve.

## Keywords

Contract Management, Organizational Design and Development, Portfolio, Strategic Sourcing, Supplier Management, Third-Party Risk Management, Technology Management, Business Economics, Dual Mandate, Price Stability

## 1. Introduction

This following analysis provides an approach to managing a sourcing portfolio

comprised of many participants. Large, mid-size or emerging suppliers enable organizations to experiment, adapt and adopt innovative solutions invented elsewhere relevant to their current and future needs. Solution propositions from mature or emerging providers call for evaluation and risk mitigation. The offerings encompass a range of products and services to address customer requirements.

To define requirements and evaluate proposals from innovators such as Nvidia, Palantir or C3.ai means the leadership and management teams must rally resources to satisfy stakeholder needs and mission objectives.

Ideally, suppliers will keep partnering for mutual long-term success in mind. However, unless the external supplier co-invests as a revenue/profit and risk sharer, all “sides” will act primarily in their own best interests. Variations on the ownership, benefits and obligations of the cooperation may differ depending on the elements of the collaborative agreements, terms, conditions and relationships. Competition among multiple suppliers within a fair and orderly marketplace will yield superior results. The best suppliers will know how to build alliances with organizations to:

- Break down silos of information
- Correlate risk information across the enterprise
- Improve automations across workflows
- Integrate data, processes and workers
- Reduce reliance on email threads and individuals’ spreadsheets

## 2. Literature Review

The Supplier management process is well defined (O’Brien, 2022; Emmett & Crocker, 2009). Managers and stakeholders need good visibility and relevant performance indicators to assess performance and take appropriate actions. Effective supplier evaluation techniques are extensively researched and practiced (Gordon, 2008). Effective management of innovation, value and risks requires good coordination of suppliers and stakeholders.

Research into strategic sourcing reveals an extensive range of publications about supplier management. Experts on this topic bring together concepts from economics, finance, organizational development, logistics and technology disciplines. Recent innovations across intelligent automation will increasingly enable stronger supplier relationships and better enterprise coordination.

## 3. Context

In this article, suppliers arise across various sectors of products, services and technologies such as:

- Communication services
- Computing hardware and equipment
- Consulting services
- Data services

- Financial systems
- Human Capital Management systems
- IT Infrastructure
- Marketing and Customer systems
- Manufacturing and Productions systems

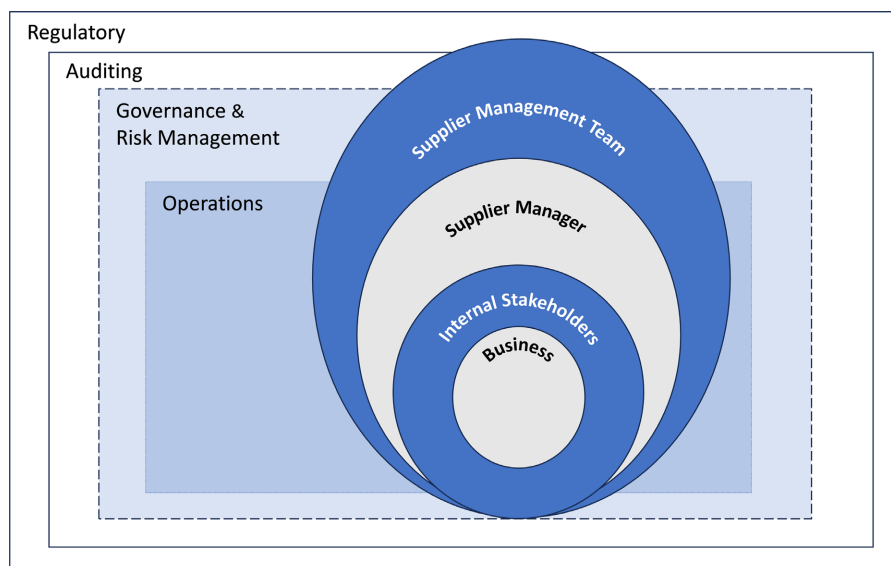
The collection of prospective and current suppliers exhibits traits common to portfolios. Some suppliers are slow to mature, and require more care than others. Some suppliers are fast to yield benefits. As discussed below, supplier portfolio management provides a central hub for overall care, feeding and relationship management through decentralized ownership and centralized monitoring.

#### 4. Environment

Ever greater scrutiny of third-party and n-th party suppliers is driving needs for better monitoring and compliance. Regulators, auditors and the public are increasingly voicing their expectations for accuracy, reliability and responsiveness (O'Brien, 2022). The complexity of relationships, legal issues and inter-connectedness led to growing demand for supply chain managers that can address de-risking, sovereignty and overall value management.

In **Figure 1** below, the supplier management landscape is illustrated. The quantity of roles, and the quantity of people performing each role will vary by an organization's size, workload, acquisitions, etc.

The supplier manager is a single point of contact for owning the relationship, collecting key information and monitoring supplier compliance. The business area will interact with the supplier at times in coordination with the supplier manager and adhere to a code of conduct, policies and conflict-of-interest guidelines. Each supplier manager is usually complemented by a team of peers, as well as contributors from other functions including Accounting, Finance, HR and Legal.



**Figure 1.** Supplier Management and Stakeholders.

## 5. Scope

During the following discussion, we examine how to design and grow the supplier management team. How to build the desired roadmap to care and feed a team of professionals to coalesce and support the mission holistically? Growing the sourcing team means continually adding maturity to a range of skills and experiences to increasingly meet stakeholder demands and expectations (Emmett & Crocker, 2009). For example, the SPM playbook will align:

- Program development
- Maturity models
- Work allocation
- Talent management
- Roadmaps
- Dashboards
- Skills, interests, readiness
- Supplier relationships
- Repeatable and scalable processes

## 6. Assumptions

After performing a full needs analysis, understanding the variables, and surveying the landscape of internal and external solutions, engaging with a reliable and cost-effective provider may be deemed appropriate. Such decisions assume an appropriate buy-build-partner analysis of options earlier occurred in-house with rigor.

Pre-award or post-award activities may include the following:

- Request for Information
- Request for Quote
- Request for Proposal
- Extensions
- Amendments
- Renewals
- Expirations

In parallel to RFX practices, suppliers are categorized in order to organize and facilitate engagement, focus and risk management. Key characteristics of desired suppliers will include the following:

- Accountable
- Aligned
- Competitive
- Confidential
- Consistent
- Integrated
- Law-abiding
- Reliable
- Responsive

- Timely
- Transparent
- Value-driven

Upon completion, renewal or termination, appropriate actions occur to ensure contract provisions are met and necessary safeguards and credentials (e.g., data, systems, facility privileges) are renewed or decommissioned (Gordon, 2008). On-boarding and off-boarding are key chokepoints to confirm data, status, deliverables, payments, etc.

A Supplier Portfolio Management framework allows for decentralized ownership with intensive Business Area input, along with centralized monitoring for a cohesive source of truth, database grooming and compliance fulfillment.

## 7. Supplier Portfolio Composition

As stakeholder needs shift and evolve, key initiatives wind-up, stabilize and wind-down. The composition of the supplier portfolio and supporting team members will also shift.

**Table 1** below exemplifies three categories of supplier types. Category A corresponds to the relatively fewer count of larger and more critical supplier types. These suppliers are deemed vital to operations and receive more frequent scrutiny due to criticality and potential risk exposure. Category C corresponds to the more numerous suppliers, typically with less risk and smaller dollar expenditure amounts. C suppliers typically require less frequent scrutiny, and are deemed more easily substitutable for alternate providers. Exceptions can occur as events dictate.

Detailed technology strategy and negotiating plans will be appropriate for C suppliers, including frequent management reviews with internal stakeholders followed by more formal Reviews with supplier participants.

For example, the customer service or marketing teams of the supplier might attend these Review sessions as an opportune time to refresh the relationship, perform needs analysis or communicate product roadmap updates. It is not uncommon for some suppliers to downgrade from A to B, or B to C as the technology matures or the pipeline of in-flight enterprise projects are completed.

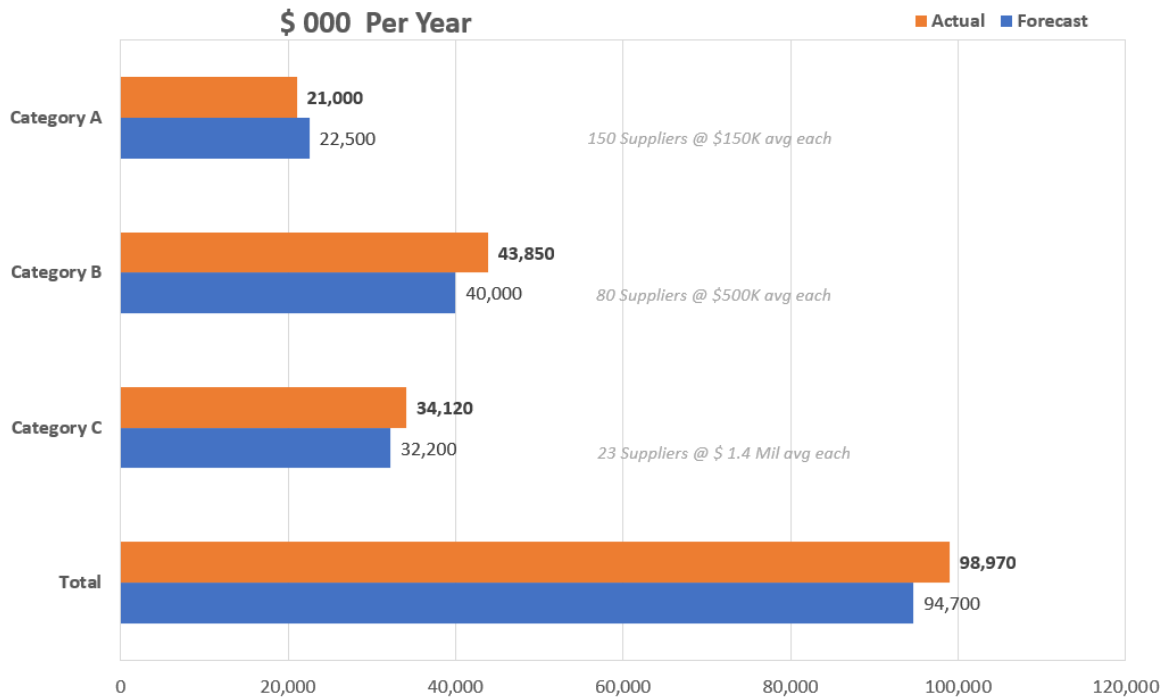
Alternatively, organizations may design a supplier portfolio rating methodology containing 4 or 5 category types to suit their situation. Suppliers requiring special attention can receive extra care as circumstances dictate (e.g., experimental technology, missed SLAs, poor supplier performance history, weakening solvency). The organization's ultimate rating method choices can also accommodate a manual upgrade or downgrade as warranted (Gordon, 2008).

**Figure 2** below illustrates a portfolio distribution to exemplify an organization's portfolio of active suppliers. In this example, each supplier with varying sizes of annual spend are categorized as A, B or C.

For annual expense and capital planning, the recent years' actuals and trends

**Table 1.** Supplier categories and treatment.

	Category A	Category B	Category C
<i>Process</i>	<i>Treatment</i>		
<b>Initiate</b>			
-NDAs	Per Legal	Per Legal	Per Legal
<b>Screen</b>			
-Landscape Survey	Rigorous	Rigorous	Less Rigorous
-Supplier Background Checks	Rigorous	Rigorous	Rigorous
<b>Set-Up</b>			
-Compliance Plan	Rigorous	Rigorous	Rigorous
-Communication Plan	Rigorous	Occasional as Needed	Less Frequent
<b>Manage</b>			
-Risk/Criticality Monitoring	Frequent Checkpoints	Frequent Checkpoints	Less Frequent Checkpoints
-Relationship Building	Frequent Checkpoints	Occasional as Needed	Less Frequent Checkpoints
-Accountability/Reporting	Frequent Checkpoints	Frequent Checkpoints	Less Frequent Checkpoints
<b>Exit</b>			
-Data Protection		Upon exit	
-Credential Removal		Upon exit	
-Equipment Return		Upon exit	



**Figure 2.** Composition of suppliers by category type.

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can be forecast and tracked to generate a visor of upcoming expenditures and investments. Variances of actuals versus forecast are monitored and managed as appropriate. As discussed further below, managing the coverage and balance of supplier activity will provide insights into performance tracking, risk management and business strategies.

## **8. Supplier Portfolio Workflows**

The set of practices for due diligence and risk management can foster consistency and repeatability. These practices also simplify continual monitoring during intake-to-procure and procure-to-pay workstreams. Elements of the supplier management workflow are highlighted below:

- Assess
- On-Board
- Comply
- Monitor
- Audit
- Contract Management
- Society & Governance
- Acquisitions & Mergers
- Privacy
- Regulations
- National Security
- Continuity Management
- System Integration
- Task & Workflow Management
- Third-party Risk Mitigation
- Off-Board

## **9. Design the Team**

In today's era of low unemployment, identifying and attracting the best candidates can be a challenge. Fortunately, the duties will appeal to diverse individuals with backgrounds including:

- Accounting
- Business Process Engineering
- Contract Management
- Finance
- Management Consulting
- Project Management
- Sourcing and Procurement
- Supply Chain Management
- Technology Consulting
- Technology Delivery
- Technology Planning

- Technology Sales and Marketing
- Value Measurement

## 10. Grow the Team

Upon building a Supplier Manager team, a worthwhile goal is to supplement the strengths of the existing staff through increasing training and skill acquisition. If the Supplier Management team needs further contract finalization or risk management capabilities, these could be consciously recruited. Likewise, the team might benefit from specific technology expertise based on the solution pipeline or platform architecture trends (e.g., AI, Agile, Cloud, Data Analytics).

The skill sets of strong supplier managers are “T-shaped.” That is, the ability to accept assignments broadly and deeply for particular initiatives in their assignments to activate the vision and tactics for the initiative.

Identifying high aptitude candidates to balance out the roster will add to overall depth, capacity and capabilities. If turnover due to rotations, promotions or personal events occur, the backfill will naturally consider the inventory of strengths, weaknesses, opportunities and future direction (George, 2021).

Strong supplier managers may adopt a variety of viewpoints to handle different situations. Drawing upon their background and diverse experiences, it’s common to employ any number of perspectives to meet an initiative’s requirements. For example:

- Analyzer
- Catalyst
- Devil’s Advocate
- Enabler
- Harvester
- Negotiator
- Stabilizer

Industry benchmarks suggest about 1 headcount per \$50 million in annual spend, which can vary by category, complexity and uniqueness. This reflects the amount of administration, analysis, contract management and tracking that occurs to perform duties, prepare for supplier negotiations and manage a set of diverse suppliers. For organizations with modern contract, procurement management and workflow solutions, greater staff efficiencies will prevail.

Further Key Performance Indicator examples for Supplier Management include:

- Dollars Saved
- Downtime Avoided
- Percentage of Spend sourced
- Percentage of FTEs sourced
- Percentage of In-House Templates used
- Penalties avoided
- Quantity of New Vendor Disputes



- Reputational risks mitigated
- Start to Finish Timeline Duration

### 1) Stages of Team Maturity

As teams come together, collaborate and grow, the journey of team development exhibits common stages of growth, behavior and needs. For example, four stages of group development (Patterson, 2010) are often observed as shown in **Table 2**:

These four stages as their characteristics and capabilities for decision-making are depicted in **Figure 3**. Forming is the first phase of defining and assembling members as a team. Storming is the second phase of turbulence and jockeying for position. Norming is the third phase of defining norms and standards of accepted conduct and communications. Performing is the fourth stage of realization of potential and actualization. As the team performs at the higher levels, decisions concerning bigger stakes occur, and faster speeds are more manageable.

As team members evolve from lower stage to top stage, bigger issues with higher stake are decided upon in a timely manner with strong consensus, support and momentum.

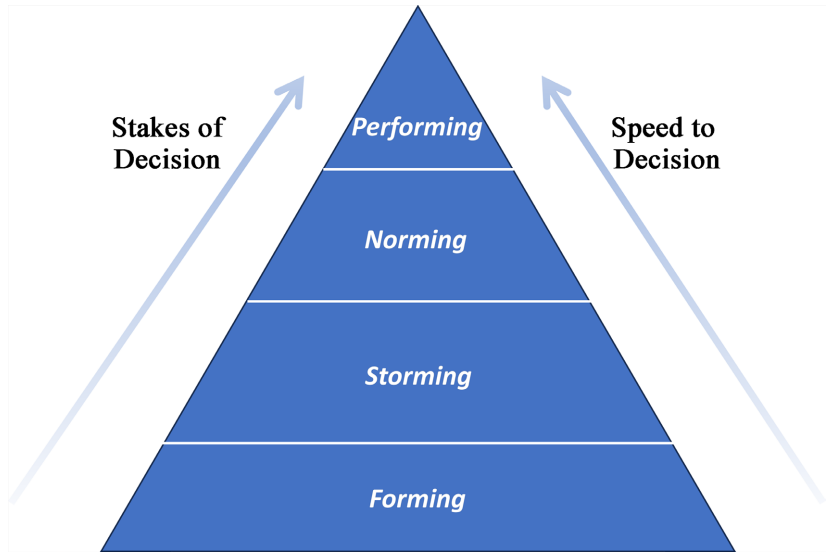
### 2) Recent Addition or Proven Expert?

When adding team members due to attrition, turnover or expanding demand, the candidates screened will vary by years of experience and depth of capability.

**Figure 4** below illustrates characteristics and attributes of Recent Addition

**Table 2.** Stages of group development.

Stage	Behavior	Needs
<b>1. Forming</b>	Avoid controversy, need for safety, fear, how to define and decide, lack of focus, off-topic discussions	<ul style="list-style-type: none"> <li>• Defined tasks and objectives</li> <li>• Project guides, ground rules</li> <li>• Roles and responsibilities</li> <li>• Time for get-acquainted</li> <li>• Upskill training</li> </ul>
<b>2. Storming</b>	Argue, vying for lead, clashes, friction, concern over excessive work, fragmented, low consensus	<ul style="list-style-type: none"> <li>• Clarity, feedback</li> <li>• Resolve conflicts</li> <li>• Trusted data, listening</li> <li>• Finesse to handle off-track behavior</li> </ul>
<b>3. Norming</b>	Agreed processes and definitions, sincere consensus building, more routines and standards, reduced firefighting	<ul style="list-style-type: none"> <li>• Able to offer valued ideas/suggestions</li> <li>• Decision making process</li> <li>• Diminished silo's</li> <li>• Executive endorsement and support Milestone setting</li> <li>• Resource rallying</li> </ul>
<b>4. Performing</b>	Empathy, commitment, role clarity, teamwork; <u>and</u> self-reliance	<ul style="list-style-type: none"> <li>• Positive reinforcement</li> <li>• Trusted feedback and dialog</li> </ul>



**Figure 3.** Stages of team development.



**Figure 4.** Recent addition or proven expert?

versus Proven Expert. Identify candidate additions to factor strengths, interests, specialties and areas needing development during hiring decisions and staffing plans. Naturally, as the team composition shifts and evolves, the goal is to nur-

ture the portfolio and manage the mix of current and future project challenges.

If current team members are very capable and experienced, the distribution of suppliers assigned to an individual could be a mix of categories A, B and C. This balance helps avoid over-concentration or over-reliance. Conversely, if current team members consist of one expert and three new additions, the distribution of suppliers for the next several months could be 100% of category A suppliers (critical, risky, complex, etc.) for the proven expert and distribute the remaining supplier portfolio to the three new additions.

Adjusting the combinations periodically will enable staff development, balance, focus, interests, motivation, retention and risk mitigation. Periodic rotation and separation of duties is also a logical strategy to minimize risks or atrophy. Shorter-duration supplementary consultants (e.g., non-employees) when available and within budget can also complement recent additions and proven experts.

### *3) Known or Unknown? Tactical or Strategic?*

To design the workload, delegating assignments can best occur by understanding the initiative, stakeholders, suppliers to respective team members. As a particular initiative gains authorization from leadership team to proceed, action gets underway to define goals, requirements and action plans.

After landscape assessment and due diligence occur, the need for managing suppliers begins to take shape. Suppliers are added to the portfolio as a candidate or selected supplier. Some initiatives are well-known from earlier ideation stages. Other initiatives begin with limited definition and are refined during the conception, development and testing stages. The business requirements, solution architecture and prospective technology mix vary in complexity and ambiguity along a continuum as illustrated in **Figure 5** below.

A range of characteristics can accompany the levels of knowns and unknowns for an initiative and the associated supplier portfolio management needs. The stakeholder mix and political climate, external and internal, are influencing factors. As the opportunity comes into better focus, the assigned supplier management assignee(s) work with stakeholders and related suppliers to further develop, leverage and monitor the supplier relationships.

Like most pipelines or portfolios, the roster of team staff additions, the portfolio of suppliers or the demand for new innovations, the need will persist to maintain coverage and fit.

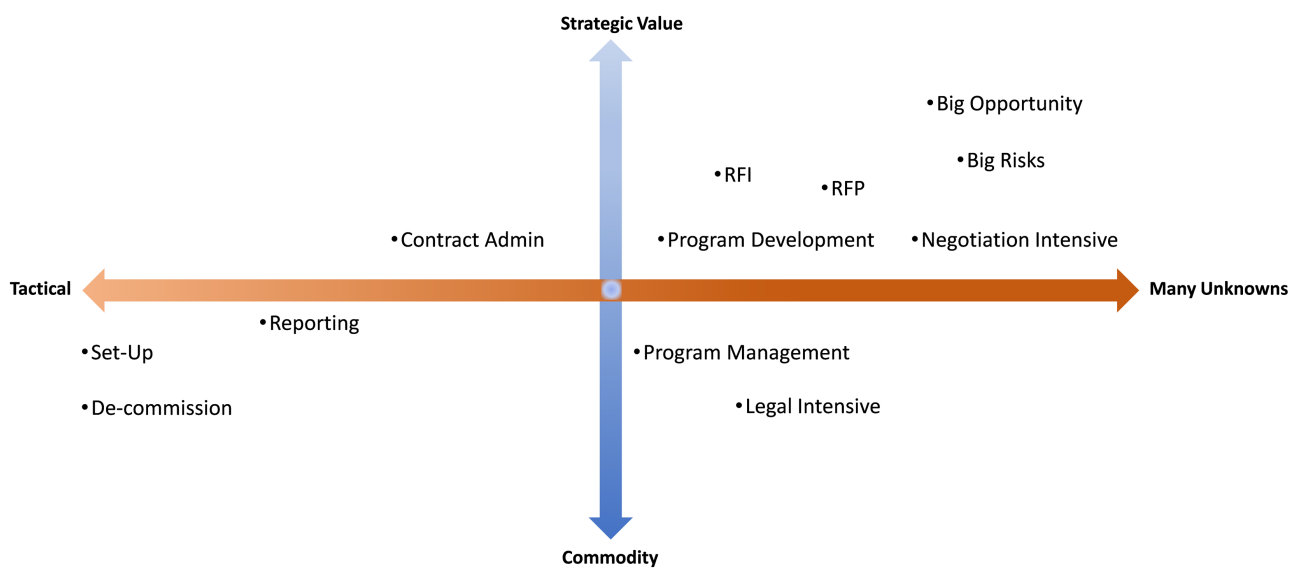


**Figure 5.** Known or unknown?

**Figure 6** below illustrates an approach for identifying attributes of demand which can be matched to staff assignments and aligned with associated risks. Furthermore, the supplier monitoring and performance reporting will generate a range of metrics and heat maps to facilitate planning, monitoring, decision making and alerting.

Examples of supplier management Key Performance Indicators and explanations are shown below:

- **Accuracy** - Number of orders fulfilled correctly divided by total orders filled (e.g., partial fulfillment can affect pace of project completion)
- **Completion** - Number of orders fulfilled divided by total orders requested (e.g., partial fulfillment can affect pace of project completion)
- **Competitive** - Pricing is reduced in response to market trends, competitor offerings, industry cost structures and alternative sources
- **Defects** - Percentage of faulty performance or downtime divided by all components received or unavailable, (e.g., bugs, interruptions, downtime)
- **Incidents** - Count and time to fix the issue and close the incident ticket from date of submission
- **Innovation** - Pace and quality of improvements in new features, reduced total-cost-of-ownership (TCO), enhanced support
- **Lead Time** - Days to fulfill request from date of request
- **Return on Investment** - Savings or productive gains divided by total cost to implement and operate
- **Readiness** - Completed analysis and reviews in advance of key upcoming events
- **Reliability** - Availability, quality, resilience and ability to fulfill requirements as requested
- **Risks** - Integrity, ethics, financials, liquidity, ownership, reputation, solvency, stability, track record, sustainability



**Figure 6.** Demand attributes.

- **SLAs** - Total service levels met divided by total service levels agreed to, recognizing some targets may be higher priority than others for quantitative and qualitative metrics used to measure supplier performance and outcomes  
*Force majeure* events such as hurricanes are omitted from performance tracking and not attributed to suppliers' strengths or weaknesses. Taking into consideration unusual events will help preserve a potentially healthy supplier relationship.
- Justifiable issues are unforeseen factors that affect supplier's ability to perform according to contract guidelines.
- Non-Justifiable issues are scope creep, incompetence, lack of skills, insufficient capacity, etc.
- Change orders due to shift in buyer need or buyer shortcomings are not held against the supplier's scorecard ratings

#### 4) Coverage, Fit and Growth

By now the initiative has gain cohesion and the workload needs to be allocated. Coverage, fit and growth are important inputs to the work distribution decision-making. Different elements exhibit differing maturities. Both are as a team, and as individual team members.

To progress from forming, storming, norming to performing can be reflected in the attitudes, principles, cooperativeness and coalescence among team members, sponsors, internal participants and suppliers.

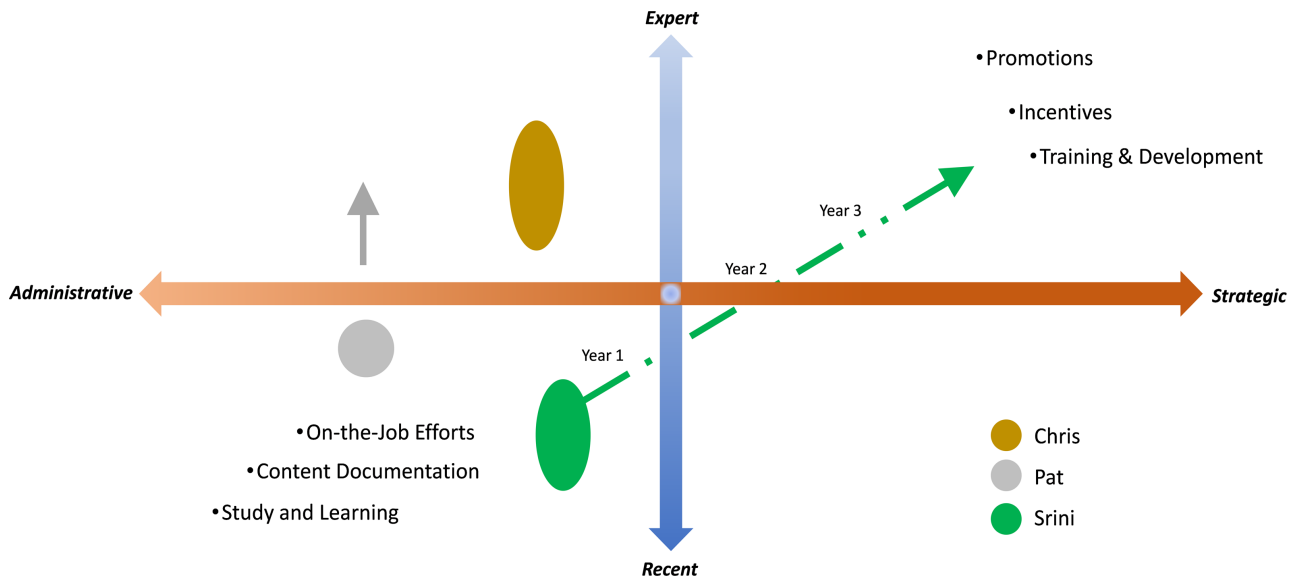
Industry benchmarks indicate roughly one supplier manager FTE for each \$50 million of annual contract spend. This equates to about \$4 million per month per person of spend coverage. Other metric examples include 3 formal Supplier Reviews per quarter per FTE, managing 2-4 complex RFX's per year, etc.

In **Figure 6** below, a recent resource addition may be assigned straightforward initiative types and supplier types that map to the bottom left quadrant. Over time, the supplier manager will gain deeper expertise and increasingly align to complex ambiguous initiative types that challenge the manager's growing skill sets and relationship networks.

Based on several of the qualities identified along the vertical axis in **Figure 7** above, the assignable supplier manager be suited and interested toward the top right quadrant. Different situations and maturation will progress at different pace to reflect the diverse range of talent and experiences. Such scenarios could resemble the following examples:

- 1) Chris covers a wider range of administrative and contract management skill sets.
- 2) Pat accepts a lateral development opportunity to heighten specialized category skills.
- 3) Srini is planned for a rapid pace of increasing complexity and criticality.

Fit is based here on how well responsibilities align to workers' experience, qualifications, interests, motivations, reliability, productivity and collaboration.



**Figure 7.** Coverage, fit and growth.

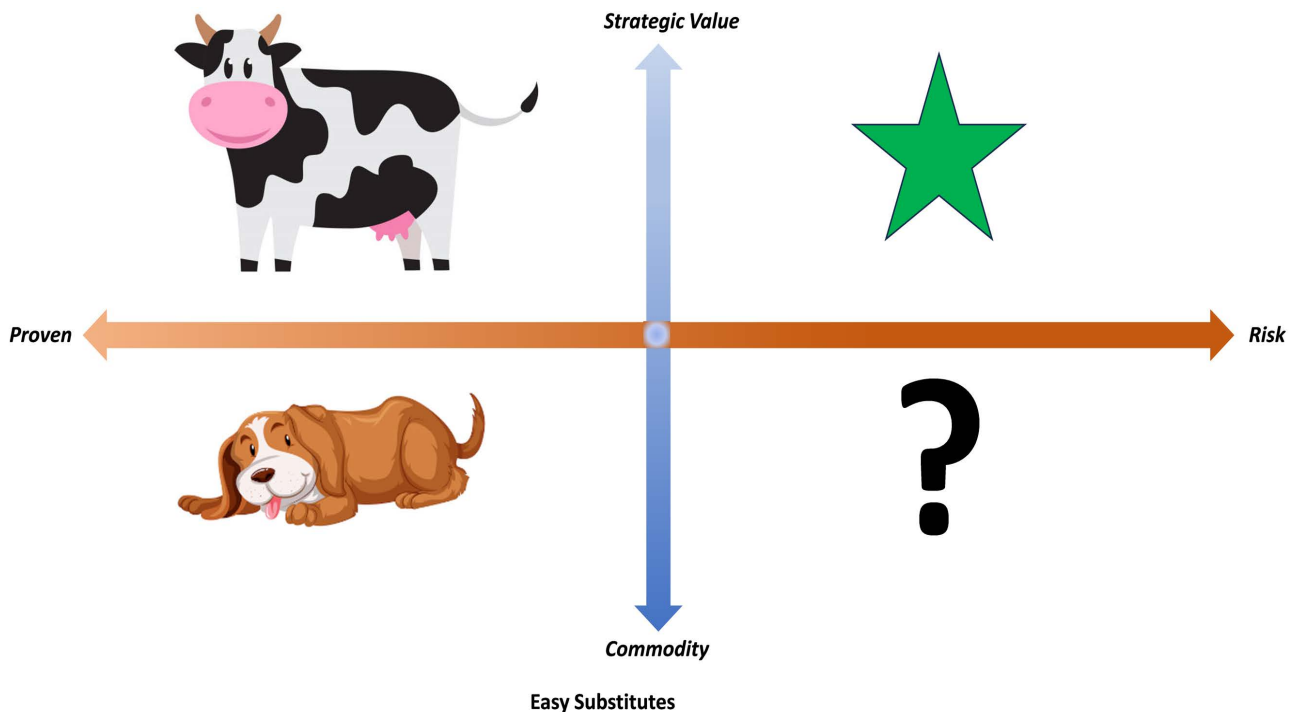
Balance will reflect the correlation and alignment of fit to needs such as:

- Concentration
- Criticality
- Diversification
- Line of Business
- Magnitude of annual contract value
- Minority, DEI or Small Business
- National Buying, Regional or Local
- Stakeholder attitudes (cooperative, difficult, ethical, etc.)
- Size of potential gain or savings
- Supplier category
- Technology category (AI, Cloud, Data, Hardware, etc.) (O’Brien, 2019)
- Technical complexity (proven or emerging)
- Other (Minority, Small-Business, Veteran, etc.)

“Dealing with concurrent hardware/software/professional services renewals and compliance obligations, you can see the workload burden becomes substantial in a hurry.”  
 Director, Strategic Sourcing and Supplier Relations

### 11. Supplier Portfolio Modeling

The management and prioritization of suppliers in a portfolio can be illustrated by **Figure 8** below. Of course, customer requirements are a primary driver. Direction from Chief Technology Officer (CTO) and key strategy leaders should ensure balance across initiatives, resources, capacities and direction. Blueprints, roadmaps and playbooks should be integrated, or at least not conflicting. Investment Committees and Architecture Review Boards (ARB) run point for



**Figure 8.** Emerging and strategic suppliers.

consistency, standards and technical debt reduction.

For our discussion purposes here, the horizontal axis reflects whether the technology and complexity are proven versus risky. The vertical axis depicts whether an initiative ties to a commoditized product or services versus a core competency deemed key differentiator to future success, and hence of strategic value to the organization.

The matrix shown below has similarities to the Boston Consulting Group's framework used for prioritizing and decision making influenced by growth rates and market share dynamics.

A tradeoff will occur between consolidating to fewer suppliers which are simpler to administer and monitor, versus avoiding over-reliance on too few, overly-concentrated set of suppliers.

The level of Risk appears on the horizontal axis and the level of strategic value appears on the vertical axis. Also, the magnitude of annual spend (or percentage of annual budget) per supplier can represent the stakes in play for the initiative.

A range of attributes can be factored into the mapping and diversification needs of the demand type, supplier type and managerial resources to correlate with the levels of risk exposure and managerial expertise.

A commodity could be essential to a solution, but if it's widely available at competitive cost, then it's criticality for supplier management is relatively low.

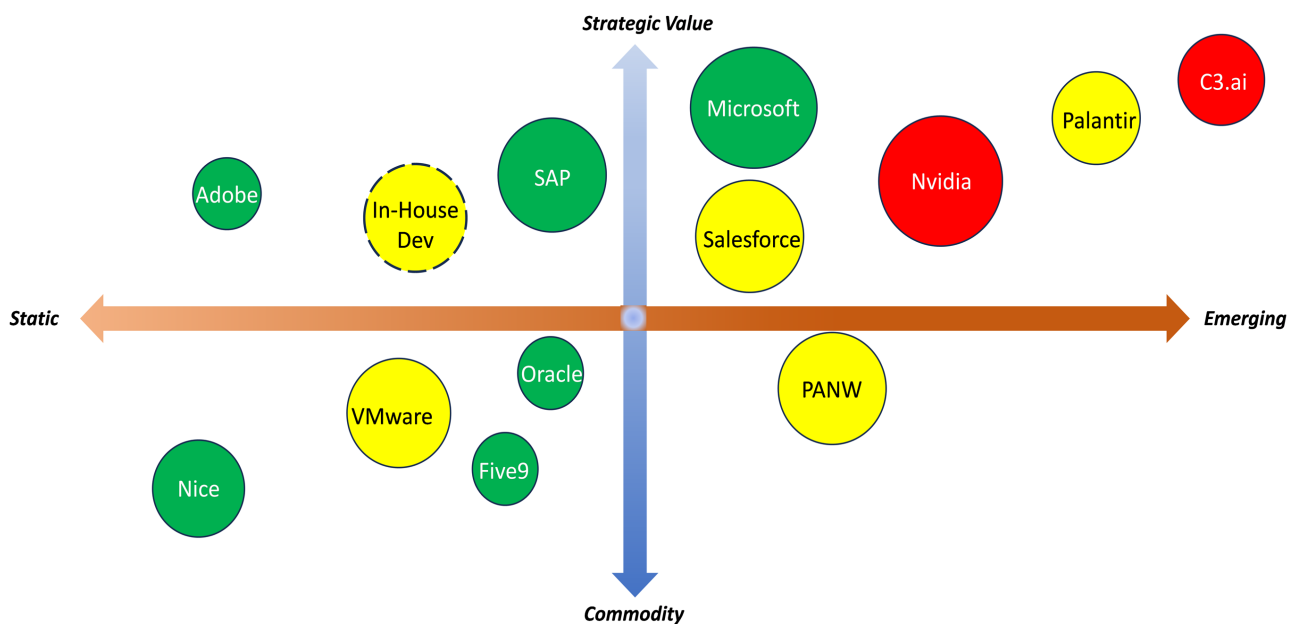
## 12. Supplier Portfolio Management

The emergence and maturation of suppliers can be further illustrated as a sequence of phases as illustrated below. **Figure 9** below depicts the usual sequence as an emerging technology or supplier transitions from market entrant, to candidate, to sizeable member of the supplier portfolio. In some instances, the supplier may remain a trusted provider for several years. In other instances, the technology or supplier may become obsolete/unreliable and be off-boarded as sequence such as 1-4 (?-to-Dog) and exit as Step 5.

Conversely, a 4-3-2-1 rotation or 1-4-3-2 could make sense for assigning a new team member as their experience and capabilities mature. Generally, the level of difficulty, risk of a mistake, foregone opportunity also tends to rise in a cyclical sequence of 4-3-2-1 or 4-1-3-2.

The pace of these transitions can vary with the perishability of the technology. In cases such as IBM, Broadcom or Salesforce.com, a series of acquisitions and/or product enhancements will enable some established providers, with extensively developed customer relationships, to remain relevant as their offerings align to changing conditions. Red Hat, VMware and Tableau respectively are examples of acquisitions that bring their acquirers (IBM, Broadcom and Salesforce.com) new offerings to established distribution channels and client relationships.

The supplier portfolio can be managed according to a variety of dimensions. Consider a portfolio of key suppliers is assembled for an organization as depicted in **Table 3** below. To concurrently assess the balance, concentration, mix, relationships, risk, spend, status, volatility and trends for many suppliers is challenging.



**Figure 9.** Cycle of maturity.



**Table 3.** Example of supplier portfolio and beta volatility.

Supplier	Market Capital	Revenue	Revenue Growth	Profit Margin	Revenue/Employee	Income/Employee	Beta	Annual Spend
Adobe	\$237 B	\$17 B	12%	27%	\$602 k	\$163 k	1.26	\$9.0 M
C3ai	4.5 B	0.3 B	6%	*	*	*	*	7.0 M
Five9	6 B	0.7 B	27%	16%	327 k	-40 k	0.7	2.2 M
Microsoft	2549 B	198 B	18%	37%	898 k	329 k	0.9	24.0 M
Nice	13 B	2 B	13%	12%	275 k	33 k	0.8	3.6 M
Nvidia	1137 B	27 B	0%	16%	1,000 k	167 k	1.8	6.5 M
Oracle	319 k	50 B	18%	-5%	305 k	52 k	1.0	13.2 M
Palantir	35 B	6 B	29%	-5%	496 k	-97 k	2.9	1.3 M
Palo Alto	74 B	4 B	29%	-5%	438 k	-21 k	1.2	3.6 M
Salesforce.com	225 B	31 B	18%	27%	394 k	2.6 k	1.19	6.6 M
SAP	168 B	33 B	4%	7%	294 k	22 k	1.1	4.7 M
VMware	67 B	13 B	4%	10%	348 k	34 k	0.8	1.4 M

Beta for a security is one of several meaningful indicators that reflect a supplier's emerging technologies, products or profits.

**Figure 10** below shows a horizontal axis for a continuum of emerging suppliers. The maturity levels can reflect the inherent technology maturity as well as the suppliers' organizational maturity (financials, reputation, growth, etc.).

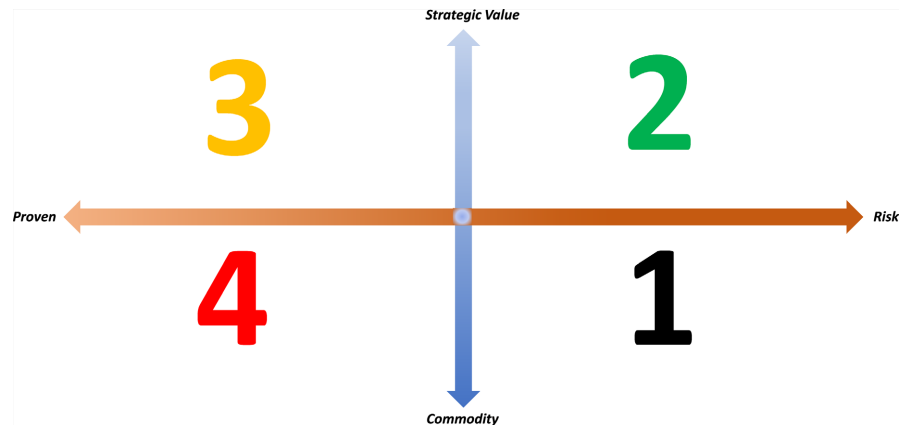
The vertical axis depicts a range of initiatives representing different levels of strategic value. Consequently, for the portfolio of initiatives, Senior Leaders can consider these factors and their relative movements to direct the optimal assignees, balance, coverage, treatment and strategies (Pandit & Marmanis, 2008).

Furthermore, the diameter of the circles and the green-amber-red colors assigned for **Figure 10** can be used to position and map attributes such as:

- Annual spend
- Core criticality
- Market capitalization
- Percent of annual budget
- Technical volatility
- etc.

“Ultimately, we could let internal teams or divisions bid at arms-length in competition with external suppliers. This kind of competitiveness can drive efficiency, responsiveness, cost savings and stronger results.”

How much innovation and risk can an organization absorb? The answer



**Figure 10.** Supplier portfolio management.

depends on a range of factors including:

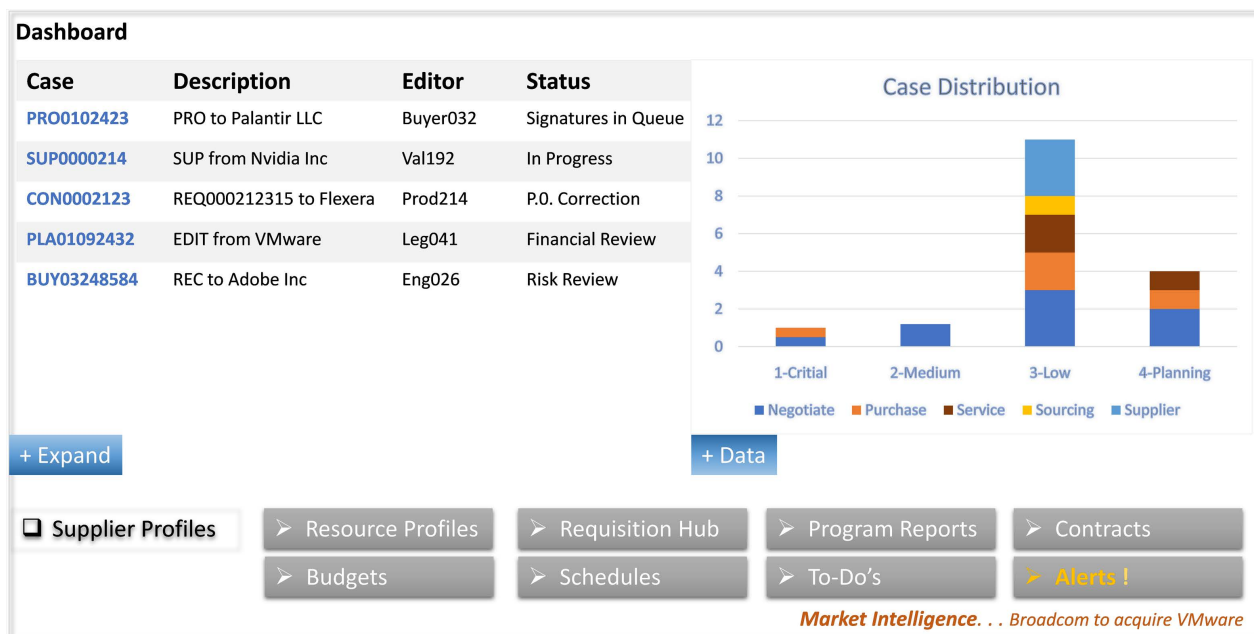
- Culture
- Capabilities
- Change management
- Communication
- Financial depth
- Labor relations
- Organizational resilience
- Regulatory constraints
- Willingness to experiment

In the past, procurement and operations platforms are complex and difficult to navigate. Providing simpler user experiences is an opportunity of increasing attention. As workflow automation improves, better visibility, notifications, self-service and interventions can occur. Many of the activities needed for effective monitoring and stakeholder ownership will be simplified and accomplished through improved dashboards and context-aware alerts (Bornet & Barkin, 2020).

**Figure 11** below illustrates a sample dashboard comprised of panes for graphs, tasks and metrics. If implemented and integrated correctly, the supplier management activity can track initiatives and resources to help ensure balance, coverage and completion. Major expirations or renewals are anticipated to ensure advance preparations. Phases and gates can be further controlled through online review and approvals, as well as forecasts, analytics, metrics and milestone reporting.

Modern solutions offer configurable workflows to automate reports sent to key recipients and listeners (Choudhary, 2017). Risk assessment can be via self-service input by stakeholders that reflect suppliers' performance, variances, etc. The automation dials display KPIs, SLAs, OKRs and communicate progress to users. The result is proactive alerts, updates and responses. For example,

- Continuous monitoring
- Cost and schedule efficiencies
- On-line approvals
- Third-party risk tracking



**Figure 11.** Example supplier portfolio management dashboard.

- Timely decisions
- Visibility on tasks, assessments, approvals, issues
- Integrations with Accounting, Auditing, Engineering, HR, Product

### 13. Conclusion

This analysis describes dynamic factors for design, operation, evolution and maturity. Individuals, teams, portfolios, suppliers and enterprises change and shift. Assembling a team comprising talented vendor managers can produce valuable innovation, careful monitoring and identifiable cost savings. Widespread inflation in recent years means that controls to manage costs and performance by suppliers are especially vital.

Working with suppliers to infuse innovative and best-of-breed solutions will accelerate organization development. Incentives and rewards for desired behavior will help establish norms that free workers to perform upward to their potential. The adage “Culture eats strategy for Lunch” is a simple way to remember that building effective teams that collaborate, break down silos and share information can surpass great strategy-thinking teams shackled by bureaucracy and poor execution.

How much change, innovation and risks per year is manageable for an organization? The answer depends on a range of factors described above including: culture, discipline, diversification, risk mitigation and transparency. If approved initiatives falter out of the gate, lessons can be learned by the organization equipped with solid methodologies to achieve the growth objectives and harness new technologies.

Instead of finger-pointing to assign blame, new innovations will energize teams and fortify creative spirits. As long as financial and intellectual capital ex-

ists, a willingness to innovate can continue.

### Conflicts of Interest

The author declares no conflicts of interest regarding the publication of this paper.

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## Glossary of Terms

Term	Description
Agile	Approach for rallying team members to release prototypes or products using practices, ceremonies and techniques that elicit stakeholder input and rally resources that can adapt to changing conditions.
ARB	Architecture Review Board.
BAFO	Best and final offer.
Beta	A risk metric for volatility of individual member of portfolio relative to overall market (e.g., S&P 500 = 1). Beta for a security could be one of several meaningful indicators that reflect a supplier's emerging technologies, products or future free cash flow and profits.
CAPM	Capital asset pricing model can help minimize risk through diversification and reduced correlation among investments. CAPM considers the risk versus reward tradeoff and asset sensitivity to non-diversifiable and diversifiable risks. Expected gain = Risk free rate + (B multiplied by (RM-RF) and considers the beta volatility, as well as the projected gain of a risk-free asset. Investors can build investment portfolios to maximize expected gain for levels of risk tolerance, or opportunistically identify over-valued and under-valued choices.
Compliance	Regulatory compliance is based on legislative or legal mandates directed by governing bodies. Organizational compliance ensures members adhere to their internal compliance structure and procedures.
Growth Matrix	Growth Matrix was developed by the Boston Consulting Group in 1970 to help analyze product lines. The matrix plots rankings of products or business units based on growth rates and share positions. The products are depicted as Cash Cows, Dogs, Question Marks and Stars. Variations on the matrix can depict items to reflect relative size of market cap, annual revenue, annual spend, etc.
KPI	Key Performance Indicator.
PPM	Project Portfolio Management. Also known as Program Portfolio Management.
Portfolio Variance	Portfolio variance measures a portfolio's overall risk and is sometimes represented as the portfolio's standard deviation squared. Portfolio variance takes into account the weights and variances of each investment in a portfolio as well as their co-variances.
Procurement	Procurement and sourcing functions perform acquisition of goods and services needed by the organization.
Program Management	Project-tracking, project development and resource management comprising multiple projects within a program.
Risk	Risk can be described as variance that an investment's actual return over a specific period, is lower than expected.
SPM	Supplier Portfolio Management.
Strategic Sourcing	Strategic sourcing is a process to enable efficiencies across spend categories, minimize supply risks with better supplier selection, and provide pricing and forecasting visibility. Strategic sourcing considers suppliers as key partners for building sustained collaboration and efficiencies.
Supplier Management	Supplier, provider, enabler, business partner is generally defined as equivalent in this document; Suppliers are defined in this document as offerers/providers for products and services for sale publicly to organizations.
Supply Chain	Supply Chain handles transactions that occur end-to-end in sourcing, producing, delivery and servicing of customers.
SOC	System and Organization Controls.
TCO	Total cost of ownership.
Value at Risk	Value at Risk quantifies the risk of potential losses for an investment. This metric can be assessed by variance-covariance and Monte Carlo methods. Organizations use VaR modeling to assess firm-wide risk due to the potential for independent teams to unintentionally create highly correlated assets which are under-diversified.