

Define a Sourcing Strategy for Your Development Team

Choose the right resourcing strategy to keep pace with your rapidly changing application and development needs.

Info-Tech Research Group Inc. is a global leader in providing IT research and advice. Info-Tech's products and services combine actionable insight and relevant advice with ready-to-use tools and templates that cover the full spectrum of IT concerns.

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Analyst Perspective

Choosing the right sourcing strategy for your development team is about assessing your technical situation, your business needs, your organizational culture, and your ability to manage partners!



Firms today are under continuous pressure to innovate and deliver new features to market faster while at the same time controlling costs. This has increased the need for higher throughput in their development teams along with a broadening of skills and knowledge. In the face of these challenges, there is a new focus on how firms source their development function. Should they continue to hire internally, offshore, or outsource? How do they decide which strategy is the right fit?

Info-Tech's research shows that the sourcing strategy considerations have evolved beyond technical skills and costs. Identifying the right strategy has become a function of the characteristics of the organization, its culture, its reliance on the business for knowledge, its strategic value of the application, its vendor management skills, and its ability to internalize external knowledge. By assessing these factors firms can identify the best sourcing mix for their development portfolios.

Dr. Suneel Ghei

Principal Research Director, Application Development
Info-Tech Research Group

Executive Summary

Your Challenge

- Hiring quality development team resources is becoming increasingly difficult and costly in most domestic markets.
- Firms are seeking to do more with less and increase their development team throughput.
- Globalization and increased competition is driving a need for more innovation in your applications.
- Firms want more cost certainty and tighter control of their development investment.

Common Obstacles

- Development leaders are encouraged to manage contract terms and SLAs rather than build long-term relationships.
- People believe that outsourcing means you will permanently lose the knowledge around solutions.
- Moving work outside of the current team creates motivational and retention challenges that can be difficult to overcome.

Info-Tech's Approach

- Looking at this from these three perspectives will enable you to determine the right approach:
 1. From a **business** perspective, reliance on the business, strategic value of the product, and maturity of product ownership are critical.
 2. From an **organizational** perspective, you must examine your culture for communication processes, conflict resolution methods, vendor management skills, and geographic coverage
 3. From a **technical** perspective, consider integration complexity, environment complexity, and testing processes.

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Choosing the right sourcing strategy is not just a question of technical skills! Successful sourcing is based on matching your organization's culture, knowledge, and experiences to the right choice of internal or external partnership.

Define a sourcing strategy for your development team

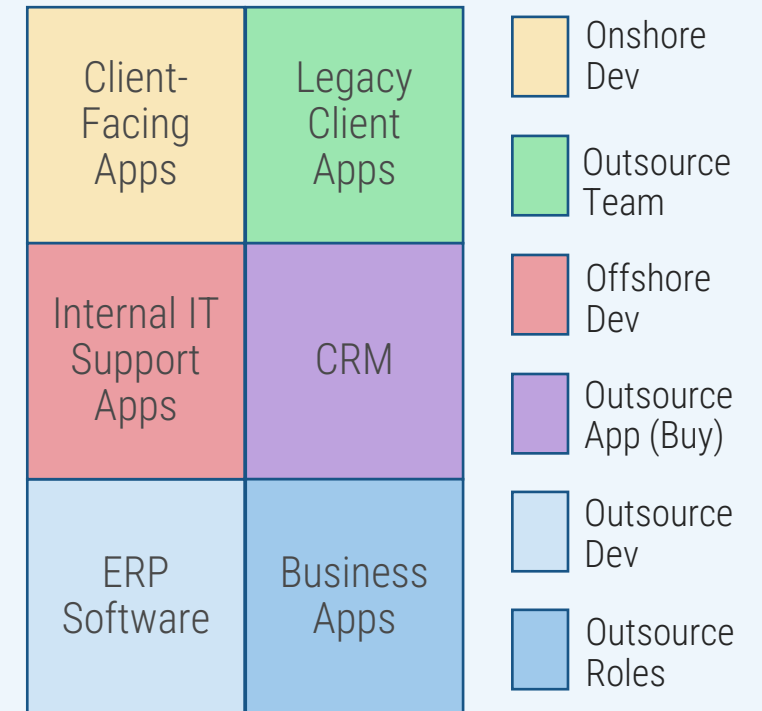


Three Perspectives

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- 1** Assess your current delivery posture for challenges and impediments.
- 2** Decide whether to build or buy a solution.
- 3** Select your desired sourcing strategy based on your current state and needs.

Three Steps = Your Sourcing Strategy



Diverse sourcing is used by many firms

Many firms across all industries are making use of different sourcing strategies to drive innovation and solve business issues.

According to a report by ReportLinker the global IT services outsourcing market reached US\$413.8 billion in 2021.

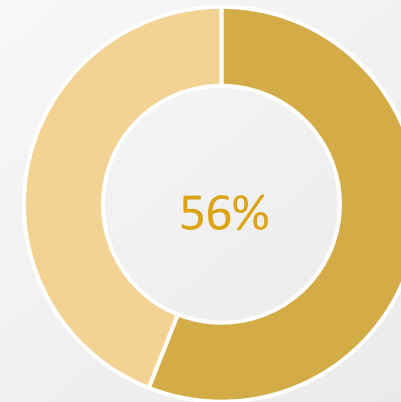
In a recent study of Canadian software firms, it was found that almost all firms take advantage of outside knowledge in their application development process. In most cases these firms also use outside resources to do development work, and about half the time they use externally built software packages in their products (Ghei, 2020)!

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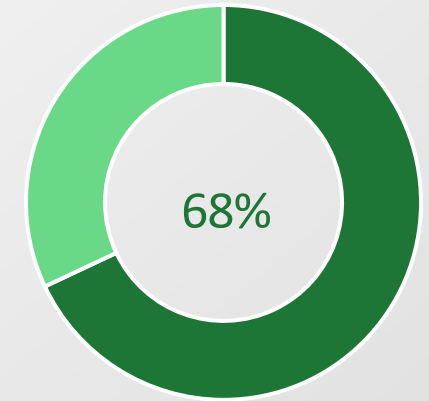
In today's diverse global markets, firms that wish to stay competitive must have a defined ability to take advantage of external knowledge and to optimize their IT services spend.

Modeling Absorptive Capacity for Open Innovation in the Canadian Software Industry

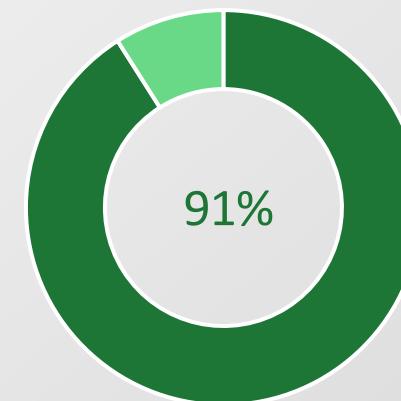
Source: Ghei, 2020; n=54.



of software development firms are sourcing applications instead of resources.



of firms are sourcing external resources to develop software products.



of firms are leveraging knowledge from external sources.

Internal sourcing models

Insourcing comes in three distinct flavors

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Insourcing allows you to stay close to more strategic applications. But choosing the right model requires a strong look inside your organization and your ability to provide business knowledge support to developers who may have different skills and cultures and are in different geographies.

Onshore

Located in the same area or even office as your core business resources
Relative Cost: \$\$\$

Nearshore

Typically, within 1-3 time zones for ease of collaboration where more favorable resource costs exist.
Relative Cost: \$\$

Offshore

Located in remote markets where significant labor cost savings can be realized.
Relative Cost: \$

Outsourcing models

External sourcing can be done to different degrees



Outsource Roles

- Enables resource augmentation
- Typically based on skills needs
- Short-term outsourcing with eventual integration or dissolution



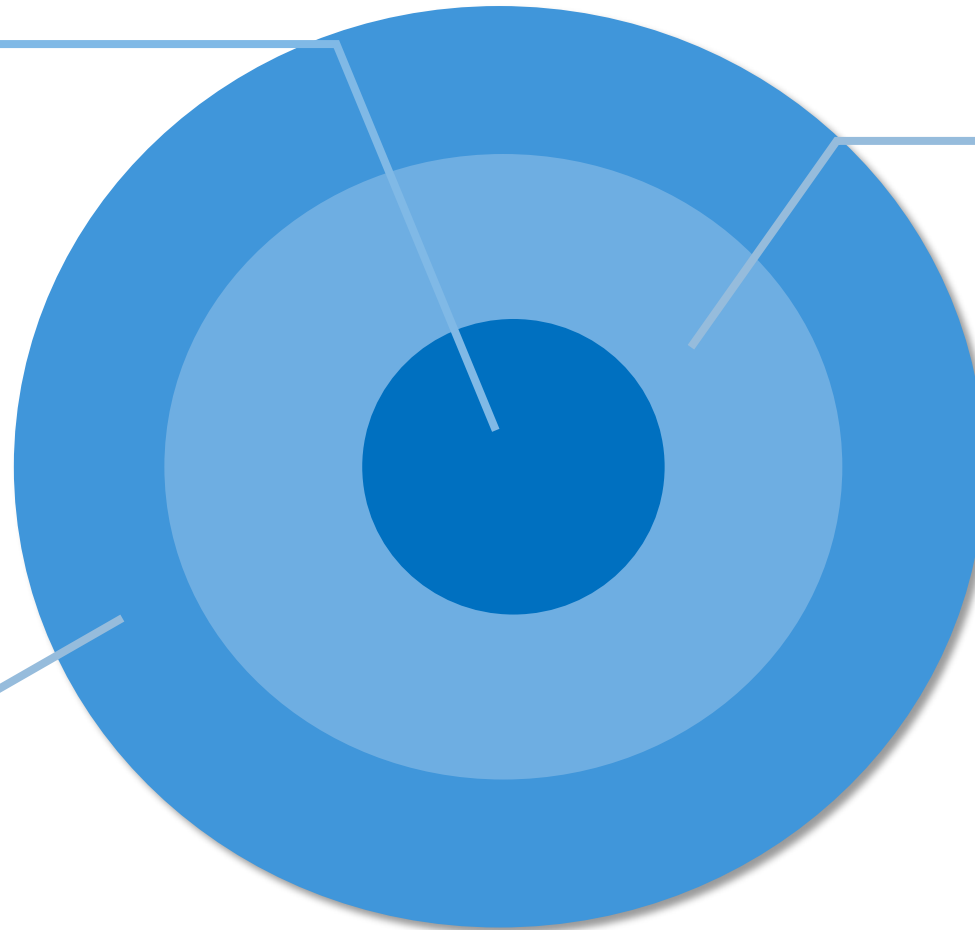
Outsource Teams (or Projects)

- Use of a full team or multiple teams of vendor resources
- Meant to be temporary, with knowledge transfer at the end of the project



Outsource Products

- Use of a vendor to build, maintain, and support the full product
- Requires a high degree of contract management skill

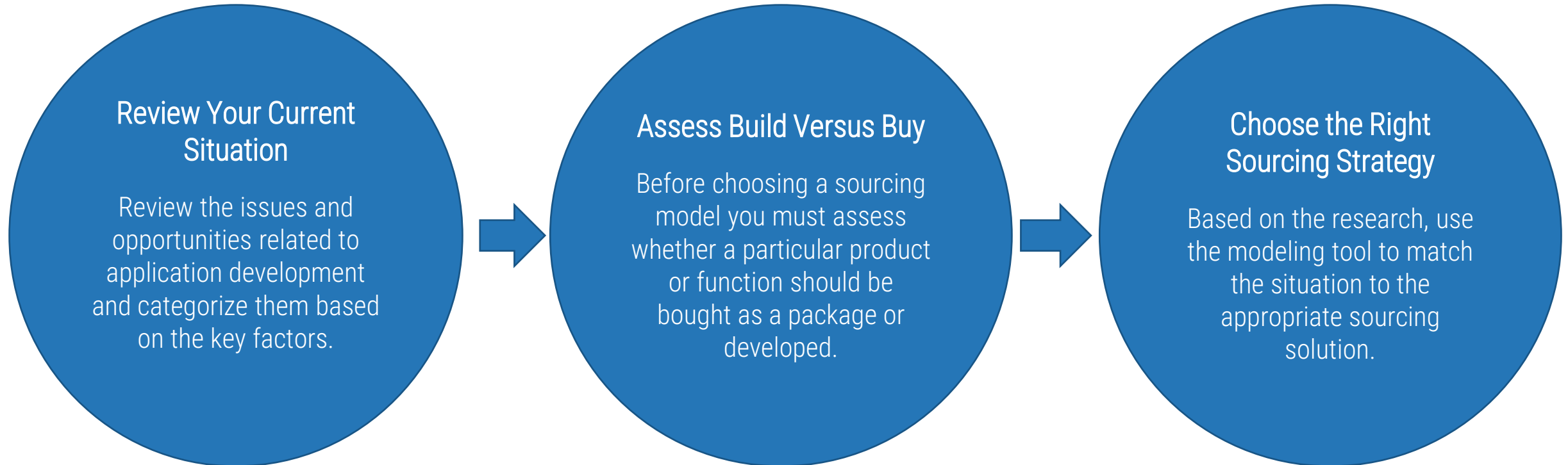


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Outsourcing represents one of the most popular ways for organizations to source external knowledge and skills. The choice of model is a function of the organization's ability to support the external resources and to absorb the knowledge back into the organization.

Defining your sourcing strategy

Follow the steps below to identify the best match for your organization



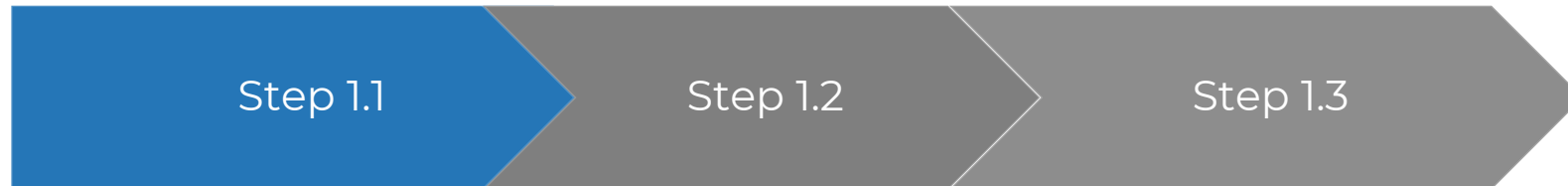
Step 1.1

Review Your Current Situation

Activities

1.1.1 Identify and categorize your challenges

Define a Sourcing Strategy for Your Development Team



This step involves the following participants:

- Product management team
- Software development leadership team
- Key stakeholders

Outcomes of this step

Review your current delivery posture for challenges and impediments.

Review your situation

There are three key areas to examine in your current situation:

Business Challenges

- Do you need to gain new knowledge to drive innovation?
- Does your business need to enhance its software to improve its ability to compete in the market?
- Do you need to increase your speed of innovation?

Technology Challenges

- Are you being asked to take tighter control of your development budgets?
- Does your team need to expand their skills and knowledge?
- Do you need to increase your development speed and capacity?

Market Challenges

- Is your competition seen as more innovative?
- Do you need new features to attract new clients?
- Are you struggling to find highly skilled and knowledgeable development resources?



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Sourcing is a key tool to solve business and technical challenges and enhance market competitiveness when coupled with a robust definition of objectives and a way to measure success.

1.1.1 Identify and categorize your challenges

60 minutes

1. What challenge is your firm facing with respect to your software that you think sourcing can address? (20 minutes)
2. Is the challenge related to a business outcome, development methodology, or technology challenge? (10 minutes)
3. Is the challenge due to a skills gap, budget or resource challenge, throughput issue, or a broader organizational knowledge or process issue? (10 minutes)
4. What is the specific objective for the team/leader in addressing this challenge? (15 minutes)
5. How will you measure progress and achievement of this objective? (5 minutes)



Document results in the *Define a Sourcing Strategy Workbook*

Output

- List of the key challenges in your software lifecycle
- Breakdown of the list into categories to identify opportunities for sourcing

Participants

- Product management team
- Software development leadership team
- Key stakeholders

Identify and categorize your challenges

Challenge				Success Measures	
Issue	Category	Breadth	Stakeholder	Objective	Measurement

Step 1.2

Assess Build Versus Buy

Activities

1.2.1 Understand the benefits and drawbacks of build versus buy in your organizational context

Define a Sourcing Strategy for Your Development Team



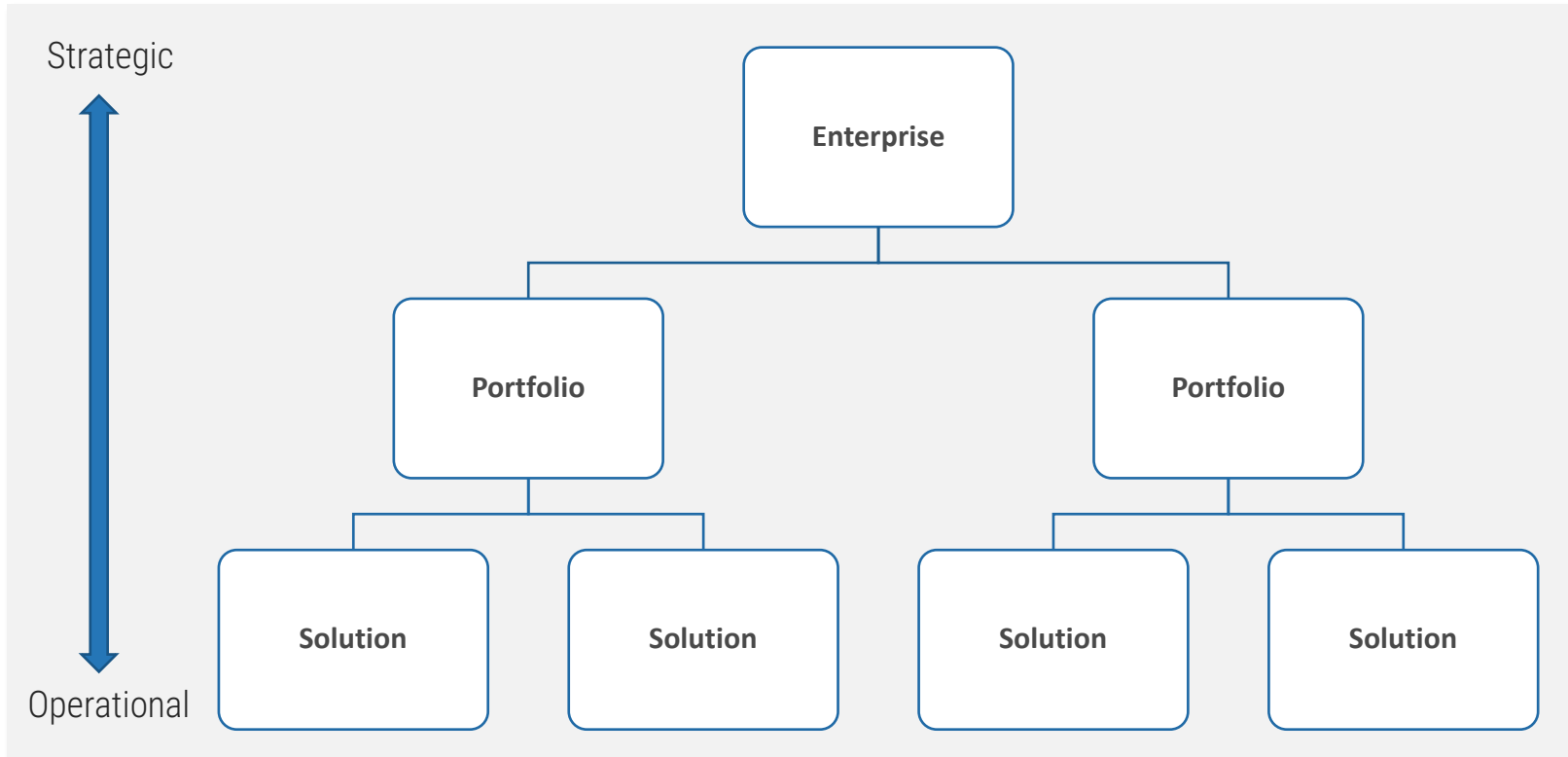
This step involves the following participants:

- Product management team
- Software development leadership team
- Key stakeholders

Outcomes of this step

Understand in your context the benefits and drawbacks of build versus buy, leveraging Info-Tech's recommended definitions as a starting point.

Look vertically across the IT hierarchy to assess the impact of your decision at every level



Regardless of the industry, a common and challenging dilemma facing technology teams is to determine when they should build software or systems in-house versus when they should rely wholly on an outside vendor for delivering on their technology needs.

The answer is not as cut and dried as one would expect. Any **build versus buy** decision may have an impact on strategic and operational plans. It touches every part of the organization, starting with individual projects and rolling up to the enterprise strategy.

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Do not ignore the impact of a build or buy decision on the various management levels in an IT organization.

Deciding whether to build or buy

It is as much about what you gain as it is about what problem you choose to have

BUILD	BUY
<p>Multi-Source Best of Breed</p> <p>Integrate various technologies that provide subset(s) of the features needed for supporting the business functions.</p> <p>Pros</p> <ul style="list-style-type: none">→ Flexibility in choice of tools→ In some cases, cost may be lower→ Easier to enhance with in-house teams <p>Cons</p> <ul style="list-style-type: none">✗ Introduces tool sprawl✗ Requires resources to understand tools and how they integrate✗ Some of the tools necessary may not be compatible with one another	<p>Vendor Add-Ons & Integrations</p> <p>Enhance an existing vendor's offerings by using their system add-ons either as upgrades, new add-ons, or integrations.</p> <p>Pros</p> <ul style="list-style-type: none">→ Reduces tool sprawl→ Supports consistent tool stack→ Vendor support can make enhancement easier→ Total cost of ownership may be lower <p>Cons</p> <ul style="list-style-type: none">✗ Vendor lock-in✗ The processes to enhance may require tweaking to fit tool capability
<p>Multi-Source Custom</p> <p>Integrate systems built in-house with technologies developed by external organizations.</p> <p>Pros</p> <ul style="list-style-type: none">→ Flexibility in choice of tools→ In some cases, cost may be lower→ Easier to enhance with in-house teams <p>Cons</p> <ul style="list-style-type: none">✗ May introduce tool sprawl✗ Requires resources to have strong technical skills✗ Some of the tools necessary may not be compatible with one another	<p>Single Source</p> <p>Buy an application/system from one vendor only.</p> <p>Pros</p> <ul style="list-style-type: none">→ Reduces tool sprawl→ Supports consistent tool stack→ Vendor support can make enhancement easier→ Total cost of ownership may be lower <p>Cons</p> <ul style="list-style-type: none">✗ Vendor lock-in✗ The processes to enhance may require tweaking to fit tool capability

1.2.1 Understand the benefits and drawbacks of build versus buy in your organizational context

30 minutes

1. Look at the previous slide, [Deciding whether to build or buy](#).
2. Discuss the pros and cons listed for each approach.
 - a) Do they apply in your context? Why or why not?
 - b) Are there some approaches not applicable in terms of how you wish to work?
3. Record the curated list of pros and cons for the different build/buy approaches.
4. For each approach, arrange the pros and cons in order of importance.



Document results in the *Define a Sourcing Strategy Workbook*

Output

- A common understanding of the different approaches to build versus buy applied to your organizational context

Participants

- Product management team
- Software development leadership team
- Key stakeholders

Step 1.3

Choose the Right Sourcing Strategy

Activities

1.3.1 Determine the right sourcing strategy for your needs

Define a Sourcing Strategy for Your Development Team



This step involves the following participants:

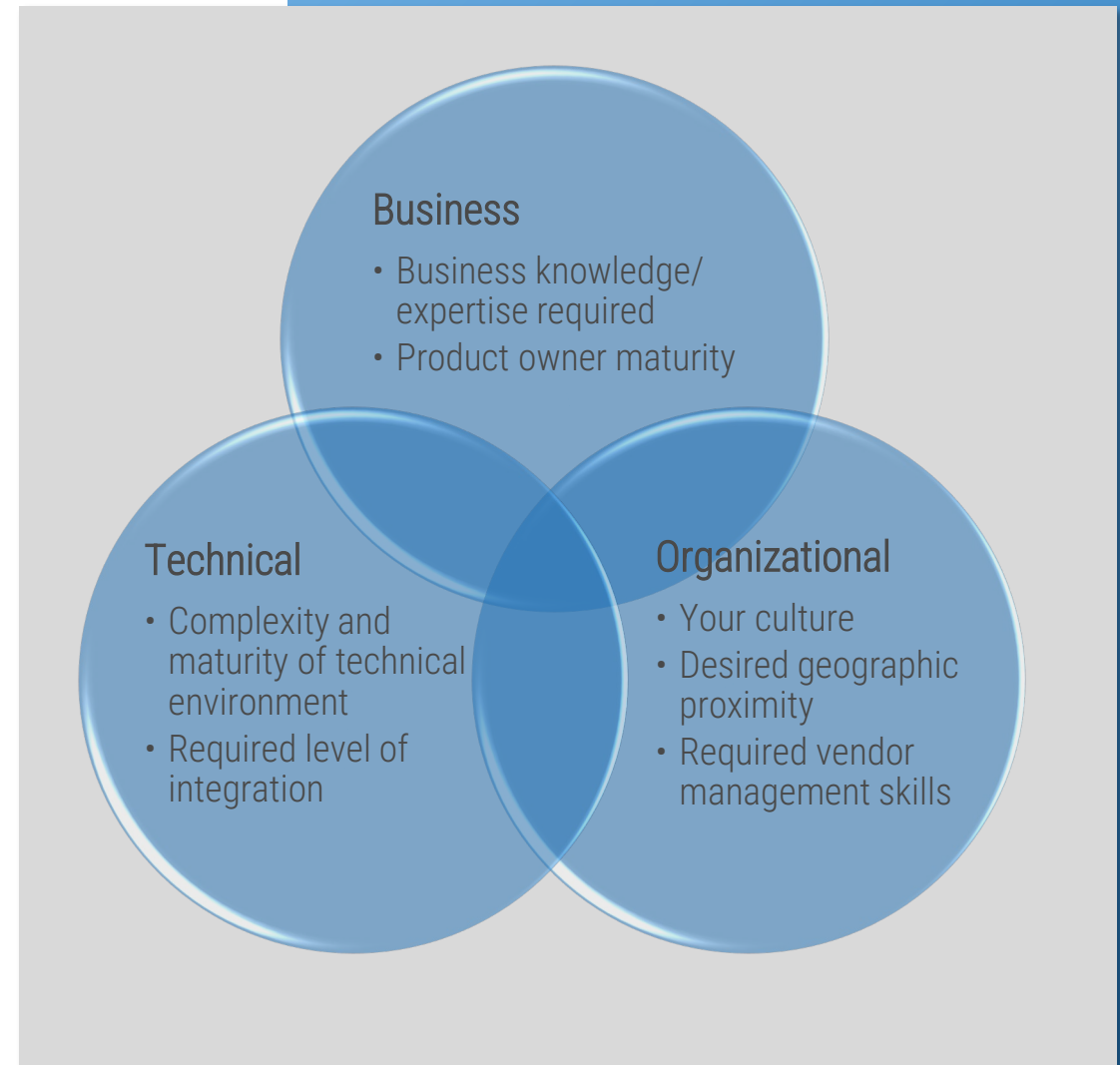
- Product management team
- Software development leadership team
- Key stakeholders

Outcomes of this step

Choose your desired sourcing strategy based on your current state and needs.

Choose the right sourcing strategy

- Based on our research, finding the right sourcing strategy for a particular situation is a function of three key areas:
 - Business drivers
 - Organizational drivers
 - Technical drivers
- Each area has key characteristics that must be assessed to confirm which strategy is best suited for the situation.
- Once you have assessed the factors and ranked them from low to high, we can then match your results with the best-fit strategy.



Business drivers

To choose the right sourcing strategy, you need to assess your key drivers of delivery

Product Knowledge

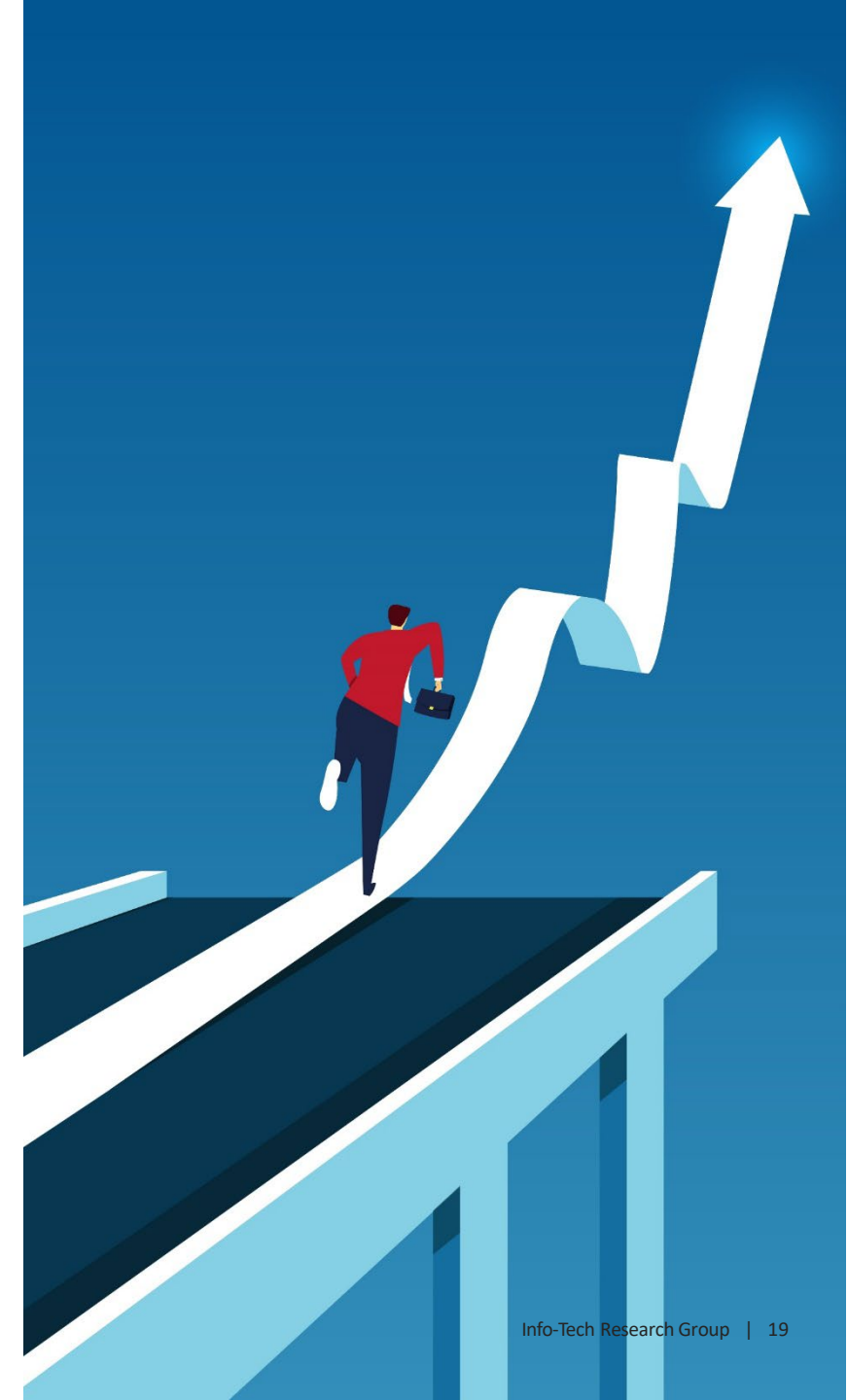
- The level of business involvement required to support the development team is a critical factor in determining the sourcing model.
- Both the breadth and depth of involvement are critical factors.

Strategic Value

- The strategic value of the application to the company is also a critical component.
- The more strategic the application is to the company, the closer the sourcing should be maintained.
- Value can be assessed based on the revenue derived from the application and the depth of use of the application by the organization.

Product Ownership Maturity

- To support sourcing models that move further from organizational boundaries a strong product ownership function is required.
- Product owners should ideally be fully allocated to the role and engaged with the development teams.
- Product owners should be empowered to make decisions related to the product, its vision, and its roadmap.
- The higher their allocation and empowerment, the higher the chances of success in external sourcing engagements.



Case Study: The GoodLabs Studio Experience



INDUSTRY
Software
Development

SOURCE
Interview with Thomas Lo,
Co-Founder, GoodLabs
Studio

Built to Outsource Development Teams

- GoodLabs is an advanced software innovation studio that provides bespoke team extensions or turnkey digital product development with high-caliber software engineers.
- Unlike other consulting firms, GoodLabs works very closely with its customers as a unified team to deliver the most significant impact on clients' projects.
- With this approach, it optimizes the delivery of strong software engineering skills with integrated product ownership from the client, enabling long-term and continued success for its clients.

Results

- GoodLabs is able to attract top engineering talent by focusing on a variety of complex projects that materially benefit from technical solutions, such as cybersecurity, fraud detection, and AI syndrome surveillance.
- Taking a partnership approach with the clients has led to the successful delivery of many highly innovative and challenging projects for the customers.



Organizational drivers

To choose the right sourcing strategy for a particular problem you need to assess the organization's key capabilities

Vendor Management

- Vendor management is a critical skill for effective external sourcing.
- This can be assessed based on the organization's ability to cultivate and grow long-term relationships of mutual value.
- The longevity and growth of existing vendor relationships can be a good benchmark for future success.

Absorptive Capacity

- To effectively make use of external sourcing models, the organization must have a well-developed track record of absorbing outside knowledge.
- This can be assessed by looking at past cases where external knowledge was sourced and internalized, such as past vendor development engagements or use of open-source code.

Organizational Culture

- Another factor in success of vendor engagements and long-term relationships is the matching of organizational cultures.
- It is key to measure the organization's current position on items like communication strategy, geographical dispersal, conflict resolution strategy, and hierarchical vs flat management.
- These factors should be documented and matched with partners to determine the best fit.

Case Study: WCIRB California



INDUSTRY
Workers
Compensation
Insurance

SOURCE
Interview with Roger
Cottman, Senior VP and
CIO, WCIRB California

Trying to Find the Right Match

- WCIRB is finding it difficult to hire local resources in California.
- Its application is a niche product. Since no off-the-shelf alternatives exist, the organization will require a custom application.
- WCIRB is in the early stages of a digital platform project and is looking to bring in a partner to provide a full development team, with the goal of ideally bringing the application back in-house once it is built.
- The organization is looking for a local player that will be able to integrate well with the business.
- It has engaged with two mid-sized players but both have been slow to respond, so it is now considering alternative approaches.

Info-Tech's Recommended Approach

- WCIRB is finding that mid-sized players don't fit its needs and is now looking for a larger player
- Based on our research we have advised that WCIRB should ensure the partner is geographically close to its location and can be a strategic partner, not simply work on an individual project.

Technical drivers

To choose the right sourcing strategy for a particular problem you need to assess your technical situation and capabilities

Environment Complexity

- The complexity of your technical environment is a hurdle that must be overcome for external sourcing models.
- The number of environments used in the development lifecycle and the location of environments (physical, virtual, on-premises, or cloud) are key indicators.

Integration Requirements

- The complexity of integration is another key technical driver.
- The number of integrations required for the application is a good measuring stick. Will it require fewer than 5, 5-10, or more than 10?

Testing Capabilities

- Testing of the application is a key technical driver of success for external models.
- Having well-defined test cases, processes, and shared execution with the business are all steps that help drive success of external sourcing models.
- Test automation can also help facilitate success of external models.
- Measure the percentage of test cases that are standardized, the level of business involvement, and the percentage of test cases that are automated.

Case Study: Management Control Systems (MC Systems)



INDUSTRY
Technology
Services

SOURCE
Interview with Kathryn Chin
See, Business Development
and Research Analyst, MC
Systems

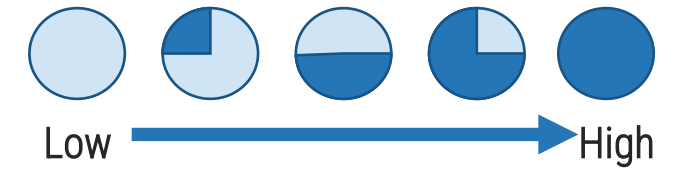
Seeking to Outsource Innovation

- MC Systems is seeking to outsource its innovation function to get budget certainty on innovation and reduce costs. It is looking for a player that has knowledge of the application areas it is looking to enhance and that would augment its own business knowledge.
- In previous outsourcing experiences with skills augmentation and application development the organization had issues related to the business depth and product ownership it could provide. The collaborations did not lead to success as MC Systems lacked product ownership and the ability to reintegrate the outside knowledge.
- The organization is concerned about testing of a vendor-built application and how the application will be supported.

Info-Tech's Recommended Approach

- To date MC Systems has had success with its outsourcing approach when outsourcing specific work items.
- It is now looking to expand to outsourcing an entire application.
- Info-Tech's recommendation is to seek partners who can take on development of the application.
- MC Systems will still need resources to bring knowledge back in-house for testing and to provide operational support.

Choosing the right model



Determinant	Key Questions to Ask	Onshore	Nearshore	Offshore	Outsource Role(s)	Outsource Team	Outsource Product(s)
Business Dependence	How much do you rely on business resources during the development cycle?	High	Low-Mid	Low-Mid	Mid	Low-Mid	Low
Absorptive Capacity	How successful has the organization been at bringing outside knowledge back into the firm?	Low	Low-Mid	Low-Mid	Mid	Low-Mid	High
Integration Complexity	How many integrations are required for the product to function – fewer than 5, 5-10, or more than 10?	High	Low-Mid	Low-Mid	Mid	Low-Mid	Low
Product Ownership	Do you have full-time product owners in place for the products? Do product owners have control of their roadmaps?	Low-Mid	Mid	Low-Mid	Mid	High	High
Organization Culture Fit	What are your organization's communication and conflict resolution strategies? Is your organization geographically dispersed?	Low-Mid	Low-Mid	Low-Mid	Low-Mid	Low-Mid	High
Vendor Mgmt Skills	What is your skill level in vendor management? How long are your longest-standing vendor relationships?	Low	Low-Mid	Low-Mid	Mid	Low-Mid	High

1.3.1 Determine the right sourcing strategy for your needs

60 minutes

Choose one of your products or product families and assess the factors below on a scale of None, Low, Medium, High, and Full.

3.1 Assess the business factors that drive selection using these key criteria (20 minutes):	3.1.1 Product knowledge 3.1.2 Strategic value 3.1.3 Product ownership
3.2 Assess the organizational factors that drive selection using these key criteria (20 minutes):	3.2.1 Vendor management 3.2.2 Absorptive capacity 3.2.3 Organization culture
3.3 Assess the technical factors that drive selection using these key criteria (20 minutes):	3.3.1 Environments 3.3.2 Integration 3.3.3 Testing

Output

- A scored matrix of the key drivers of the sourcing strategy

Participants

- Development leaders
- Product management team
- Key stakeholders



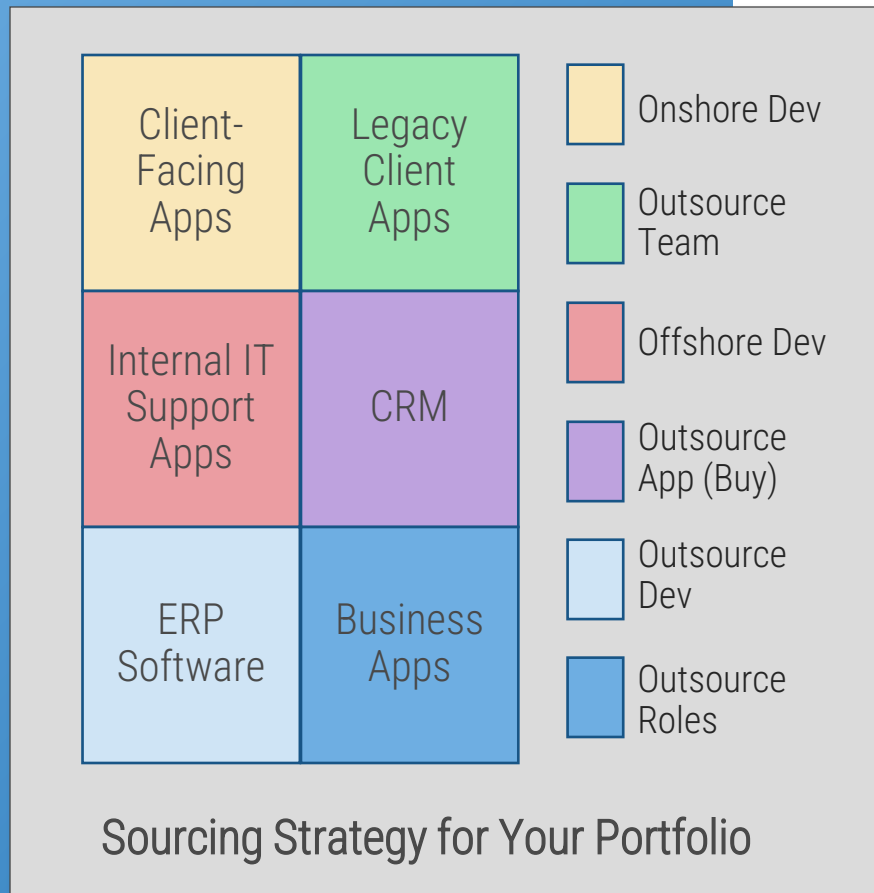
Document results in the *Define a Sourcing Strategy Workbook*

Things to Consider When Implementing

Once you have built your strategy there are some additional things to consider

Things to Consider Before Acting on Your Strategy

By now you understand what goes into an effective sourcing strategy. Before implementing one, there are a few key items you need to consider:



Start with a pilot

- Changing sourcing needs to start with one team.
- Grow as skills develop to limit risk.

Build an IT workforce plan

- Build an integrated workforce plan for the organization.
- Refer to our research: [Build a Strategic IT Workforce Plan](#).

Enhance your vendor management skills

- Refer to our research: [Manage Your Vendor Before They Manage You](#).

Involve the business early and often

- The business should feel they are part of the discussion.
- See our [Agile/DevOps Research Center](#) for more information on how the business and IT can better work together.

Limit sourcing complexity

- Having too many different partners and models creates confusion and will strain your ability to manage vendors effectively.

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