# Artificial Intelligence: Build, Buy, or Both?

## Five considerations



Artificial intelligence (AI) is transforming every industry and creating new opportunities for business growth and innovation through process improvement. But how do you decide whether to build your own AI solutions, buy them from vendors, or use a combination of both?

In this post, we will explore five key factors that will help you determine the best path for your organization:

- **Business objectives**
- **Cost**
- **Time**
- **Capability Requirements**
- **Risk**

## Business Objectives

The first step is to define your business objectives and use cases. What are the problems you want to solve or the opportunities you want to seize with AI? How will AI add value to your products, services, processes, staff, or customers? How will you measure the success and impact of your AI project?

By clarifying your business objectives, you will narrow down the scope and requirements of the solution and align the technology requirements with your overall strategy and vision.

Can your objectives be met by one solution, or should you prioritize multiple AI projects?

This is the first step towards identifying the best approach, whether it might be to build, buy, or a combination of both.

# Cost

The next factor to consider is the projected total cost of ownership (TCO) of your AI project. This includes the costs of:

- Tools - The software and hardware platforms, frameworks, libraries, and tools you need to develop, deploy, and maintain your AI solutions.
- Resources - The people and technology you need to build or support your AI solution, such as data scientists, engineers, analysts, domain experts, consulting services, data storage, etc.
- Subscriptions - The fees you need to pay to access or use third-party AI platforms, such as APIs, SaaS, or PaaS, cloud storage, or the subscription costs of ready-to-deploy options.

Depending on your budget and resources, you may opt for building your own AI solutions from scratch, buying ready-made or customized solutions from vendors, or using a hybrid approach that leverages both internal and external capabilities. You should also consider the trade-offs between upfront and ongoing costs, as well as the potential return on investment (ROI) of each option. Do not assume that one way is less expensive than another, run the numbers!

# Time

Another factor to consider is the time it takes to integrate AI into your organization. This includes:

- When do you need it? The urgency and priority of your AI projects, and the expected timeline and milestones for delivery and deployment.
- How long will it take to deploy? The complexity and feasibility of your AI projects, and the challenges and risks involved in implementation and integration with other systems (delays).
- How much time to achieve ROI? The expected payback period and breakeven point of your AI projects, and the factors that influence the speed and scale of value creation.

Depending on your time constraints and expectations, you may decide to take your time and build or leverage a plug-and-play option from a vendor who can get you there fast. If you decide to buy, make sure the vendor will satisfy your timeline for deployment, have clear expectations set for what resources you will need to dedicate, and when the vendor is committed to engage with your team. The other four factors addressed in this post should each be considered in the context of time as will, some will take longer than others.

# Capability Requirements

You'll also need to consider your required solution capabilities. This includes:

- Is what you need possible/available? Research will determine supply chain viability. Is it already possible to buy from a vendor, are the tools accessible to build it yourself?
- Do you have customization requirements, or special integration needs? The flexibility and adaptability of the solution, and the extent to which it can be tailored to your unique needs, preferences, and integration requirements must be thought through.
- Can you support future changes to the solution that other systems will demand of it? The scalability and maintainability of your AI solution, and the ability to cope with changing demands and requirements from your business or environment are key. Who will own it? Will they manage a vendor relationship or an inside team?
- Upgrades – Building it does not stop at deployment. If growing your own is the choice, what resources will be dedicated to improvements? If you go down the buy it road, will you benefit from a larger user community who are contributing new feature requests (SaaS model), or are they considered chargeable customizations? AI is an emerging technology, companies are discovering new use cases every day, expect and prepare for growth and change.

Depending on your capability requirements, you may find a proven and tested solution from a reputable vendor that checks all the boxes. You may need some customizations and depending on the vendor, be able to achieve it with them doing the work. Or perhaps your team can work with the vendor and reach success with a hybrid structure? If you decide to build, make sure you have redundant inside knowledge including a succession plan, and the resources dedicated for system management and upgrade.

# Risk

The final consideration is risk:

- Security - The security and privacy of your data, and the potential threats and vulnerabilities they may face from hackers, competitors, or regulators. Will your AI architecture expose your data or your environment?
- Compliance - The compliance and ethics of your AI solutions, and the potential legal and regulatory issues they may encounter from customers, stakeholders, or authorities must be front-of-mind. Many organizations that would benefit greatly from AI are hesitant for this reason!
- Human redundancy - The impact of your AI solutions on your workforce, and the potential need for reskilling, upskilling, or redeploying your employees.
- Obsolescence - The lifespan and relevance of your AI solutions, and the potential need for upgrading, updating, integrating, or replacing them as technology and

process evolves. Who will do it? Do you have depth or are you relying on just one person?

- Scope creep - The scope and complexity of your AI projects, and the potential for overrunning your budget, time, or resources. Solid business objectives are where we began this post, set your goals and stick to them. At the same time, understand that change is expected as technology matures.

Depending on your risk tolerance and application needs, you may choose to consider AI solutions that come with some exposure or that provide more control and security. The human risk factor must be considered in the context of both solution management and impact. Compliance pressure continues to increase from multiple fronts and your AI solution will either help or hinder in this regard. Identifying how building or buying will impact your risk posture is a necessary step.

Building, buying, or a hybrid approach for integrating AI is not a simple or straightforward decision. It requires careful consideration of various factors, such as business objectives, cost, time, capability requirements, and risk. There is no one-size-fits-all solution, and the best approach may vary depending on your specific needs and circumstances. However, by considering the question of building, buying, or both through the context of the five topics outlined in this post, you will make an informed and strategic decision that aligns your goals with a solid roadmap for success.