

# Aligning Operating Models with Strategy Using Business Architecture

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*A Business Architecture Whitepaper*

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## Introduction

Organizations often struggle with how best to utilize the resources available to optimize their results. Any strategic plan is likely to be incomplete without identifying and defining an appropriate business model as well as its underlying *operating model*.

While there is no universally agreed definition of what constitutes an operating model, a generic description is that an operating model contains “an abstract representation of how an organization operates across a range of domains in order to accomplish its function”<sup>1</sup>.

The objective for this whitepaper is analogous to the previous Business Architecture Guild® whitepaper that addressed business modeling<sup>2</sup>:

- To show how business architecture practitioners can employ the operating model (along with the business strategy, the business model, and the business architecture) to enhance analysis, planning, and optimization activities.
- Help business architecture practitioners to recognize the differences between an operating model and a business model, and to understand how to utilize both to ask appropriate questions to help decision-makers drive out strategy and tactics.
- Explain how and when an operating model, and which type or types of operating model framework, should be used for decision-making and analysis.

An underlying assumption is that the business strategy will be defined and analyzed by a strategy team, and that a business architecture practitioner will be a member of this team along with business executives, strategic planners, and business analysts.

Understanding the relationships and impacts that strategies, business models, and operating models have on each other helps to create a framework for developing and maintaining an effective business architecture, which itself is a necessary step for moving the organization forward in an aligned manner. The *Guide to the Business Architecture Body of Knowledge*® (*BIZBOK*® *Guide*) and previous Business Architecture Guild® whitepapers discuss the importance of the business model<sup>i</sup> as a device for outlining (at a summary level) how the pieces of a business fit together to achieve its strategic purpose. However, a business model lacks specificity around the operating details that one might need to perform an impact analysis or to plan projects and future investments. An operating model is designed to provide that missing detail.

The effort to create the Business Architecture Guild’s® prior work on aligning business models with business architecture was aided by the widespread adoption of the Business Model Canvas as a framework for business model design and innovation. In the case of the operating model, however, there is relatively little agreement between academics, consultants, and leading practitioners on what the core elements (building blocks) of the

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<sup>i</sup> A business model describes the rationale of how an organization creates, delivers, and captures value.

operating model should be or on how they should be represented in a real business. These different perspectives will be explored as we examine four of the more well-known and most commonly used operating model frameworks in this whitepaper:

1. MIT CISR<sup>ii</sup> Operating Model Types: Degree of business process integration versus business process standardization.
2. Strategy&<sup>iii</sup> Operating Model Blueprint: People and Organization, Processes, Governance Interactions, Culture, Measures and Motivators, and Ways to Play.
3. Bain<sup>iv</sup> Operating Model: Structure, Accountabilities, Governance, Capabilities, and Ways of Working.
4. Operating Model Canvas<sup>v</sup>: Processes, Organization, Location, Information, Supply Chain, and Management System.

This whitepaper does not specifically endorse these or any other operating model framework. Rather, it offers a high-level, conceptualized operating model structure around which each of the example frameworks may be viewed as a type of specialization. It examines the different circumstances under which each framework can be used to analyze the impact of strategy on the operating model, and how the framework's components map to various business architecture domains. The strategy team may then choose to select the particular elements from each framework that are best suited to their organization's unique characteristics and market challenges.

## **Aligning Strategy, Business Models, and Operating Models Using Business Architecture**

An organization's business model and operating model serve two complementary purposes:

1. The business model describes an organization's value-producing logic.
2. The operating model defines the underlying structure and behavior of that business.

Importantly, the viability and feasibility of a business model can only be determined when it has been analyzed, tested and validated within the context of the operating model.

As illustrated in Figure 1, a strategy assessment often involves applying the business strategy to the operating model – as seen through the abstraction of the business architecture. The business model, in turn, summarizes the expected consequences of the changes to the operating model. The business model results are then used to accept, reject, or make changes to the business strategy.

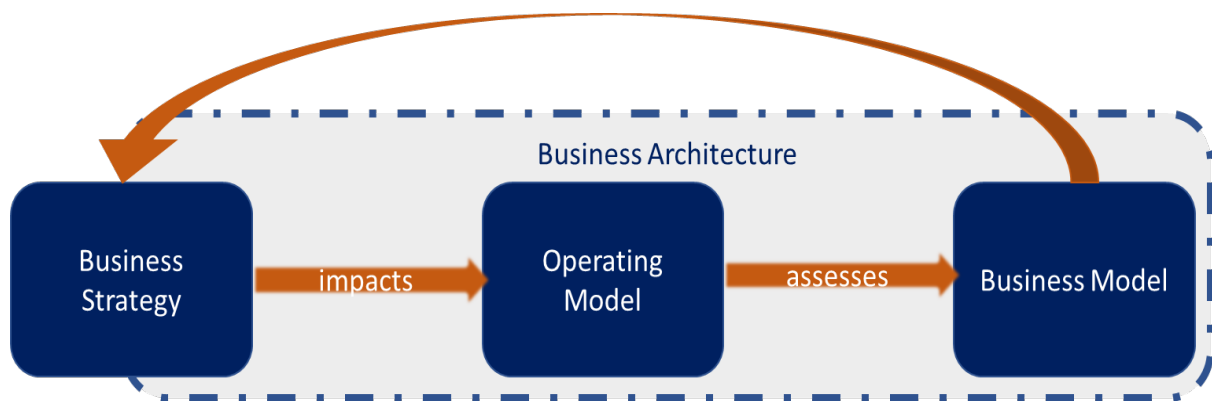
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<sup>ii</sup> Massachusetts Institute of Technology's Center for Information Systems Research.

<sup>iii</sup> Strategy& is the consulting firm at PricewaterhouseCoopers (PwC), resulting from PwC's acquisition of Booz & Company in 2014.

<sup>iv</sup> Bain & Company.

<sup>v</sup> From the book "Operating Model Canvas" by Andrew Campbell, Mikel Gutierrez, and Mark Lancelott, 2017.



*Figure 1 – Linking the Operating Model to the Strategy and Business Model*

Contemporary businesses are complex; organizational agility is required to compete in a rapidly changing marketplace defined by increasing expectations for innovation and value. Yet complexity and agility are antagonistic characteristics. Innovation rarely arises from strategic analysis and incremental change. Rather, businesses need ways to create a variety of strategic ideas and to then have a quick, reliable means to test them for desirability, feasibility, and viability. The abstractions of the business architecture, particularly the capability and value stream maps, provide a simplified view of the operating model. This can help to guide analysis as well as present results in a framework that promotes executive understanding and decision-making.

Figure 2 delves deeper into the stages behind the strategy-to-execution process, emphasizing the different cognitive activities that are used to develop strategy. These cognitive activities are also found in many of the capabilities shown in figure 1.5 of the *BIZBOK® Guide*.

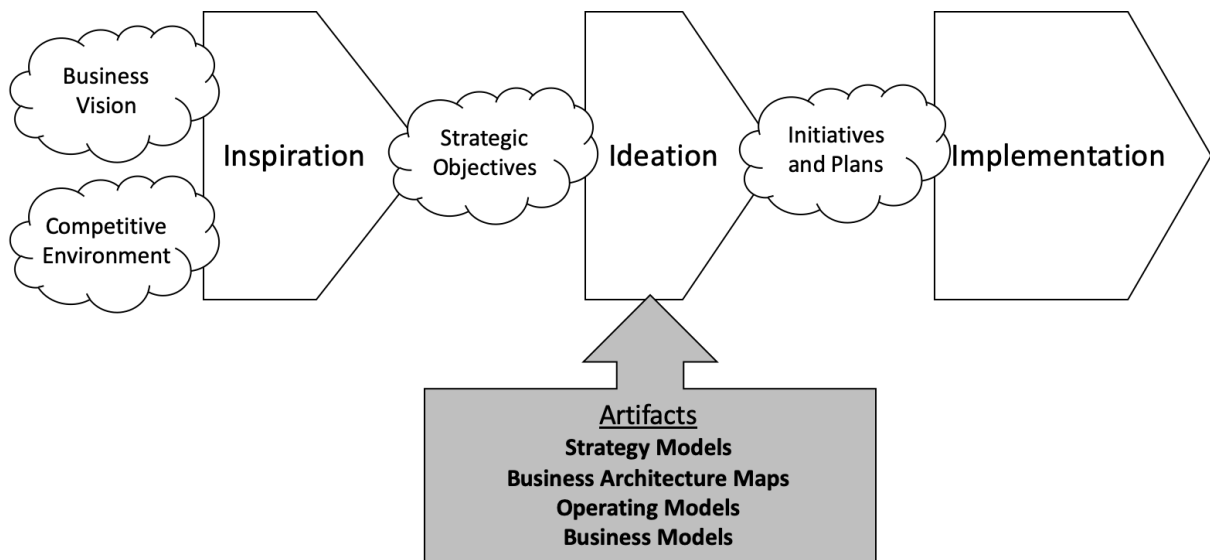


Figure 2 – Strategy-to-Execution Process

Each stage of the strategy-to-execution process is defined as follows<sup>3</sup>:

- *Inspiration* – the problem or opportunity that motivates the search for solutions
- *Ideation* – the process of generating, developing, and testing ideas
- *Implementation* – the path that leads from the project room to the market

The ideation stage is experimental; it is not an analytic process that leads to a single answer. Business agility comes from having an ideation process that allows many change proposals to be developed and tested quickly, discarding those that do not survive testing for desirability, feasibility, or vitality. However, few businesses can afford either the time or the level of investment needed to develop and test all proposed changes to the fullest extent. Rather, the tests need to be carried out on *models* of the business:

1. Strategy models consist of hypothetical courses of action; objectives that result from the courses of action; and rationales supporting the conclusion that if the courses of action are carried out, then the objectives are likely to be met. Strategy models can be complex and have internal conflicts, so strategy modeling tools are used to create, analyze, and manage them.
2. Business models examine the various constraints and tradeoffs across the various internal and external stakeholders. The design of the business model also provides a framework for the steady-state operating model that is expected to result from the implementation of the strategy model.
3. Business architecture maps such as capability, value stream, organization, and information maps depict the components of the business that will be impacted by a proposed idea. Each visualization promotes a more detailed understanding of where new investments or changes in business behavior are required to deliver the desired business outcomes.

4. Operating models provide the high-level resource definitions needed for testing the vitality and feasibility of change ideas.

While the strategy-to-execution process implies a sequential flow, there is a symbiotic relationship among the artifacts. This means that the development of each model and map should be performed in an iterative manner.

The end goal is a purposeful change to the business rather than the creation of a product. The key difference is that there is no prototypical customer to define the *desirability* of the result. The business will instead substitute a set of strategic objectives intended to balance the forces of its customers, competitors, suppliers, workers, and owners.

## Operating Model Frameworks

This section explores the four operating model frameworks outlined in the Introduction section. It provides a summary overview and a contextual perspective on where, as a whole or in part, each model may be helpful to business architecture practitioners. This is necessary because the domains and relationships that are included in a *working* operating model will depend on the nature of the business, its overall strategy, and the opportunity or problem the strategy is addressing. The strategy team should not feel restricted or confined to any one of these example frameworks. Instead, they should be free to combine the relevant and appropriate elements from these examples as well as other operating model frameworks to enable a more targeted analysis of a strategy's impact on the organization's operating environment.

### MIT CISR Operating Model Types

In 2006, two MIT professors and one professor from the International Institute for Management Development in Lausanne, Switzerland, published *Enterprise Architecture as Strategy*<sup>4</sup>. This book introduced a four-quadrant view of operating model differences, examining the degree to which executives wish to:

- *Integrate* business processes in the organization
- *Standardize* business processes in the organization

Figure 3 shows the four operating model types along with the typical characteristics of businesses that adopt each type:

Business Process Integration	High	<p style="text-align: center;"><b>Coordination</b></p> <ul style="list-style-type: none"> <li>• Unique business units with a need to know each other's transactions</li> <li>• <b>Examples:</b> Commonwealth Bank of Australia, MetLife, Aetna</li> <li>• <b>Key IT capability:</b> access to shared data through standard technology interfaces</li> </ul>	<p style="text-align: center;"><b>Unification</b></p> <ul style="list-style-type: none"> <li>• Single business with global process standards and global data access</li> <li>• <b>Examples:</b> Southwest Airlines, Dow Chemical, UPS Package Delivery</li> <li>• <b>Key IT capability:</b> enterprise systems reinforcing standard processes and providing global data access</li> </ul>
	Low	<p style="text-align: center;"><b>Diversification</b></p> <ul style="list-style-type: none"> <li>• Independent business units with different customers and expertise</li> <li>• <b>Examples:</b> Johnson &amp; Johnson, Pacific Life, ING</li> <li>• <b>Key IT capability:</b> provide economies of scale without limiting independence</li> </ul>	<p style="text-align: center;"><b>Replication</b></p> <ul style="list-style-type: none"> <li>• Independent but similar business units sharing best practice</li> <li>• <b>Examples:</b> Marriott, 7-Eleven Japan, ING DIRECT</li> <li>• <b>Key IT capability:</b> provide standard infrastructure and application components for efficiencies</li> </ul>
		Low	High
<b>Business Process Standardization</b>			

*Figure 3 - Operating Model Types*

The framework steers business architecture practitioners toward business processes as the basis for developing and optimizing the operating model. It also recommends consulting with subject matter experts about the implications of altering who, where, when, how, or why each process is performed.

Using this quadrant-based operating model framework is helpful when working with executives in the following ways:

1. A business architecture practitioner can plot where executives believe they are on the grid and explore why they place their organization in a particular quadrant. It is common to find that not all members of the leadership team will agree that they are operating in the same place. Many current-state issues are likely to emerge during such discussions. One CxO may believe that all processes are currently standardized across the entity, only to discover that they are not. Another may think that business processes are not fully integrated but instead learns that a great portion of them are. The quadrant framework is thus helpful to show the current-state maturity of business processes across the organization.
2. A business architecture practitioner can work with stakeholders to plot where they should be at some future point in time (the target state). That will lead to a new set of questions: Why? What is causing the most pain? What changes should be made in

other business domains such as resources, assets, and partners if the business was to shift to a different square on the grid?

These exercises help stakeholders recognize and understand how their business actually functions, which can then lead to more creative brainstorming for change and innovation. To assist the brainstorming process, business architecture practitioners should be sure to ask the “Why?” and “What if?” questions before discussing “How can changes be achieved?”<sup>vi</sup>.

Taking this high-level perspective of the operating model is designed to inform and influence the business strategy and the business model, which are the other components of the planning triad. There will be continual give-and-take between the strategic plan, the business model, and the operating model, as the business architecture practitioner facilitates the necessary discussions among the stakeholders. For example, an organization may struggle with autonomy versus coherence of business units and their processes. The MIT CISR framework underscores two key considerations when examining this type of strategic issue:

1. To what extent is the successful completion of a business unit’s transactions dependent on the availability, accuracy, and timeliness of other business units’ information?
2. To what extent does the organization benefit from having all business units run their operations in the same way?

The business architecture practitioner must also have a view of upcoming potential acquisitions, joint ventures, or divestitures. Those dynamics can lead to multiple operating models that may or may not need to persist, just as there may be various business models (depending on the business vision and direction).

Using this quadrant-based categorization can help create the summary framework that a business architecture practitioner needs to begin a more detailed development of business capabilities and value streams that will enable the strategy. CxOs can become very engaged in these discussions, because they are oriented around key business drivers and events – both current and future.

## Strategy& Operating Model Blueprint

The Strategy& version of an operating model framework<sup>5</sup> is founded upon the principles of strategic differentiation and organizational alignment. The central idea is that a small

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<sup>vi</sup> From the book “A More Beautiful Question: The Power of Inquiry to Spark Breakthrough Ideas” by Warren Berger, 2014.



number of differentiating capabilities determine how well a business can execute its differentiating strategy<sup>6</sup>.

The Strategy& Operating Model Blueprint (shown in Figure 4) puts “Differentiating capabilities” (which Strategy& defines as being the way the organization creates value) at the heart of the organizational elements that describe the “how” – the way to structure the business operationally to create and deliver that value.



Figure 4 - Strategy& Operating Model Blueprint

Recognizing that the most difficult operating model elements to change are culture, governance, and motivation, the developers of the Strategy& Operating Model Blueprint provide four categories of analysis to extend those elements:

1. Decisions – How to ensure that decisions continue to support the differentiating capabilities<sup>vii</sup>.
2. Motivators – How to influence managers and staff to make the right decisions.
3. Information – How to ensure that the information needed to make decisions and skills to execute them are of high quality and easily accessible.
4. Organization – How to structure the business to ensure coherent behavior and the functional order of work.

<sup>vii</sup> Strategy&'s differentiating capabilities have some similarities but not directly aligned to what the Guild defines as a business capability, which implies that outcomes and value streams are the results of capabilities.

These categories are not independent of one another; a decision process may also be affected by organization, information, and motivation factors. Each category comprises both formal and informal components<sup>viii</sup>, as shown in Figure 5:

	<b>Formal</b>	<b>Informal</b>
<b>Decisions</b>	Governance forums	Values and standards
	Decision processes	Exceptions
<b>Motivators</b>	Rewards	Shared vision
	Career models	Aspirations
	Talent recognition	Sources of pride
<b>Information</b>	Management data	Skills
	Key performance indicators	Beliefs
	Knowledge systems	Identity
	Information availability	Culture
<b>Organization</b>	Business units	Networks
	Departments	

*Figure 5 - Strategy & Operating Model Blueprint Components*

An operating model can be defined by selecting the specific categories and components believed to be relevant to the task of assessing strategy alternatives, then defining specific measures able to assess each strategy alternative. Constructing the measures typically involves identifying particular organizational units, assets, and behaviors that serve to ground the measures, e.g., how many people will be affected by the change.

Once an operating model is defined using these categories, the implementation plan should address conflicts, dependencies, and collaborations among them, while describing how to transform the business to align with the target state. For example, if the desired operating model shows a need for close collaboration, the implementation plan should change both the formal organization of the business and the informal networking practice. Some of the implementation activities in each category will take time to execute and even longer to show results. Consequently, a business architecture practitioner may find a staged roadmap necessary to meet the objective of showing incremental business value throughout the implementation.

### **Bain Operating Model**

Bain & Company’s Operating Model framework goes beyond the standard organizational structures to include elements such as decision rights, accountabilities, key performance indicators, management processes, and dashboards to deliver the desired outcomes.

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<sup>viii</sup>“Formal” and “informal” are terms used in the source document. Formal is intended to designate recognized business structures, behaviors, and measures, while informal is intended to designate soft, unofficial business structures, behaviors, and measures.

As an industry’s economic equilibrium comes under pressure from new entrants entering the market with more innovative business models, incumbent enterprises need to develop and implement differentiating strategies to achieve operational sustainability. Organizations re-learning the art of strategy to build competitive advantage must also become proficient at creating operating models that can deliver the expected results. Bain refers to their operating model framework as a blueprint for how resources are organized and managed to deliver those results. As illustrated in Figure 6, it takes shape through key choices in the following areas:

- Structure – the matrix of products, geographies, and segments that will work best for manufacturing or distribution
- Accountabilities – aligning roles and responsibilities to excel in key capabilities
- Governance – speeding up the critical decisions in capital allocation, IT investment, capital expenditure, product design, and vendor choice
- Ways of working – calibrating a culture that fosters collaboration across functions and with vendors
- Capabilities – combining people, processes, information, and technology to reinforce the elements of the strategy that will enable an organization to stand apart from its competitors

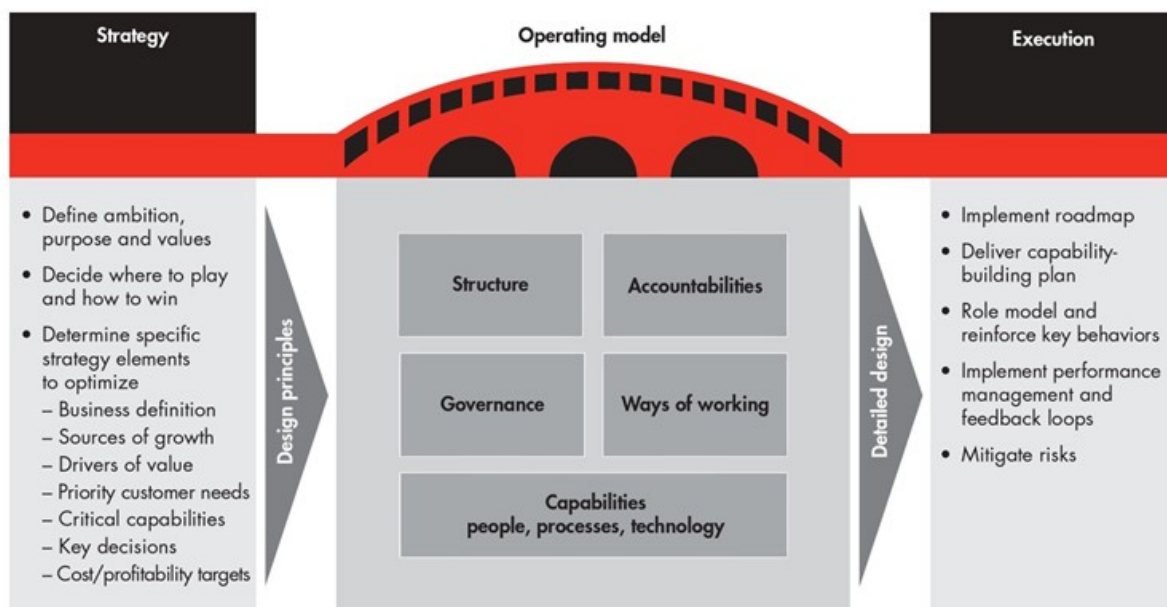


Figure 6 - Bain Operating Model

The first step in designing an operating model is to translate the enterprise strategy into a handful of design principles outlining what the organization needs to do to deliver that strategy. These become a set of objective criteria that leadership teams can use to evaluate

different operating model options. In essence, the design principles translate the strategy into a set of requirements that the operating model has to deliver.

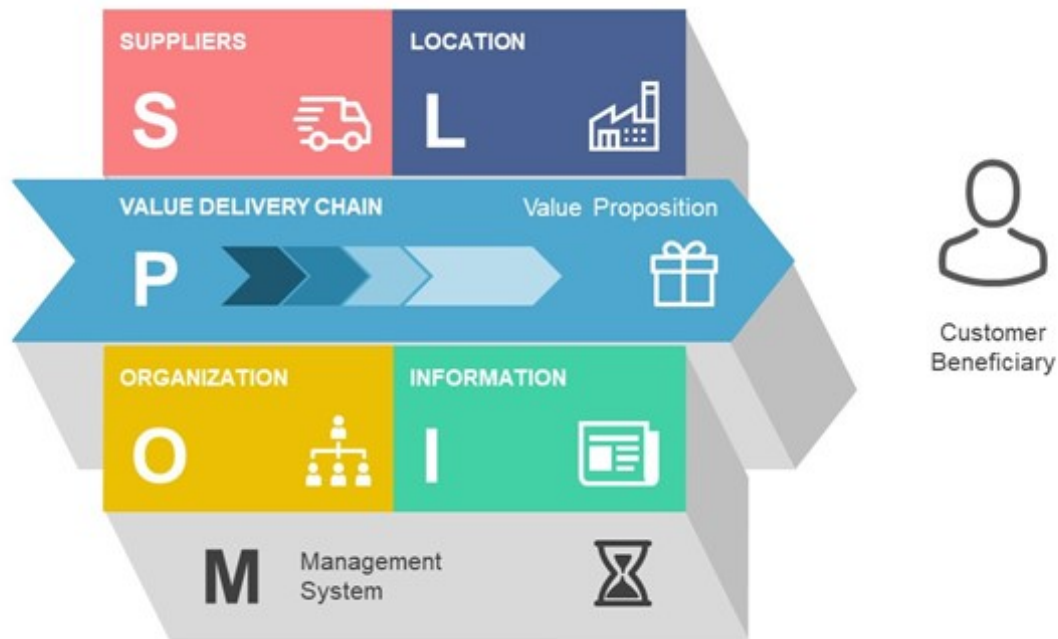
Design principles also help the leadership team focus on two important areas:

1. What matters the most in designing the target organization.
2. How to align the leadership team (from an emotional perspective) in order to conduct sensitive discussions that can be turned into fact-based dialogues.

## Operating Model Canvas

The authors of *Operating Model Canvas*<sup>7</sup> describe their framework as a blueprint that helps manage and convert strategy into operational decisions. Business architecture practitioners who are familiar with the Business Model Canvas may recognize that the Operating Model Canvas (shown in Figure 7) replaces the Key Partners, Key Activities, Key Resources, and Value Propositions business model elements with the following enhancements:

- Proposition – the work that needs to be done to deliver a value proposition or service proposition
- Organization – the people who will do the work and how they are organized
- Locations – where the work is done and what buildings and assets are needed in these locations
- Information – the information systems that support the work
- Suppliers – what organizations provide input to the work and what sort of relationships exist with these organizations
- Management systems – the planning, budgeting, performance management, risk management, continuous improvement, and people management processes needed to run the organization



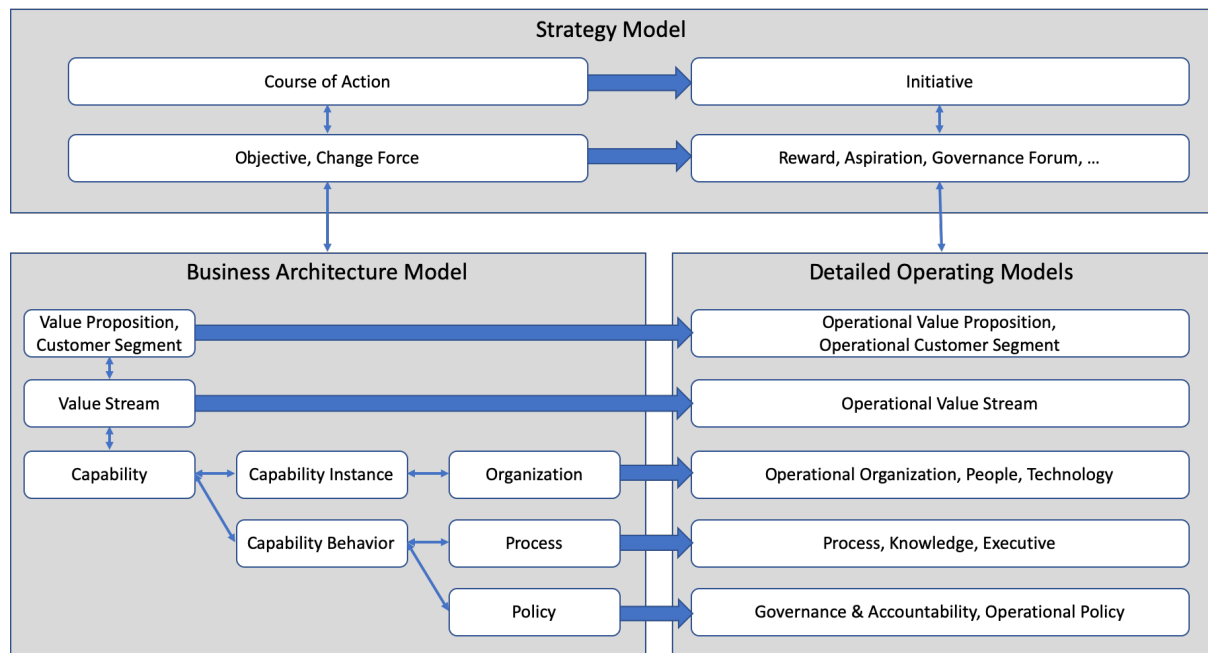
*Figure 7 - Operating Model Canvas*

The objective of the Operating Model Canvas is to capture the leadership team’s thoughts about how to design their operations and the organization that will deliver a value proposition to a target customer or beneficiary. It helps translate the strategy into choices about operations and organization. The Operating Model Canvas can be used to understand the as-is or current-state situation, as well as to design a to-be or target-state operating model.

### **Aligning Business Architecture and Operating Model Concepts**

One of the primary functions of business architecture is to simplify and summarize a complex business so that decision-makers can clearly see the impact of business problems and proposed solutions. In creating this summary, a business architecture practitioner must take into account the relevant structural and behavioral details of the business that would be described in an operating model. The business architecture and the operating model are usually captured in separate blueprints, examples of which include documents, drawings, tables and data sets. These blueprints are linked together (ideally in a knowledgebase) through a process of alignment, which preserves the relationship between the operating model details and the business architecture summary of those details.

Figure 8 shows the alignment between core business architecture concepts and operating model concepts, and how strategy impacts both sets of concepts. The left (Business Architecture) side of the diagram provides a simplified view of the most relevant business architecture concepts. The right side shows a simplified view of operating model concepts; the business architecture practitioner will extend these concepts as needed to include the most relevant, important elements of their chosen operating model.



*Figure 8 – Strategy, Business Architecture and Operating Model Alignment*

In Figure 8, the thin arrows represent relationships between the business architecture concepts. For example:

- Capabilities support value streams and produce outcomes
- Outcomes affect business objects
- Capabilities have instances and behaviors

Because certain operating model concepts such as organization, process, and policy are important to business decision-makers, they are also represented in the business architecture as kinds of capability instances and capability behaviors.

The thick arrows linking business architecture concepts to operating model concepts reflect the conceptual alignment between the models. In practice, the business architecture practitioner would create an alignment blueprint showing (for each concept in the business architecture model) the operating model concepts that are aligned to that business architecture concept. For example, a capability instance for keeping stock in a geographical region might be aligned with a dozen actual stock-keeping facilities in that region. An examination of the operational stock-keeping processes at each facility may reveal variations in these processes that are not supported by the business requirements. Most likely, the organization would operate more efficiently if these facilities were using the same process.

The nature of each alignment will depend on the problem being addressed by the business architecture practitioner. For example, if business leaders suspect efficiency problems due to process variation, the alignment process carried out by the business architecture practitioner may be limited to focusing on the alignment between capability instances and capability behaviors with the organization units, facilities, and the operational processes and policies. On the other hand, if the executives are trying to determine the change impact of a strategic course of action, the scope of the alignment would include alignments of most of the concepts shown in the business architecture side of Figure 8 (along with the strategy model concepts). For this reason, the alignment blueprint is not considered part of either the business architecture blueprint or the operating model blueprint.

Finally, the concepts in the strategy model are separated in order to match the separation between the business architecture and the operating model. A typical strategy process will begin with consideration of courses of action, objectives, and change forces<sup>8</sup>, along with their impact on the as-is operating model as seen through the abstractions of the business architecture model. Abstract to-be operating models and their corresponding business models are constructed using the business architecture perspective for each strategy. The strategies that survive this part of the process will be evolved into planned initiatives, and a more thorough and detailed to-be operating model and its business model will be evaluated prior to a business commitment to execute. The perspectives of the business architecture model guide the business architecture practitioners and analysts toward results that inform executives properly and assist their decision-making.

## Case Study Examples

This section provides a case study on each of the operating model frameworks. These high-level examples are provided to:

1. Guide the strategy team on how to select an operating model framework or the components that are most suited to an organization's strategy.



2. Encourage the business architecture practitioner or analyst to tailor the operating model considerations to an organization’s target environment and its desired outcomes.

### MIT CISR Case Study – Strategic coordination in Health Insurance

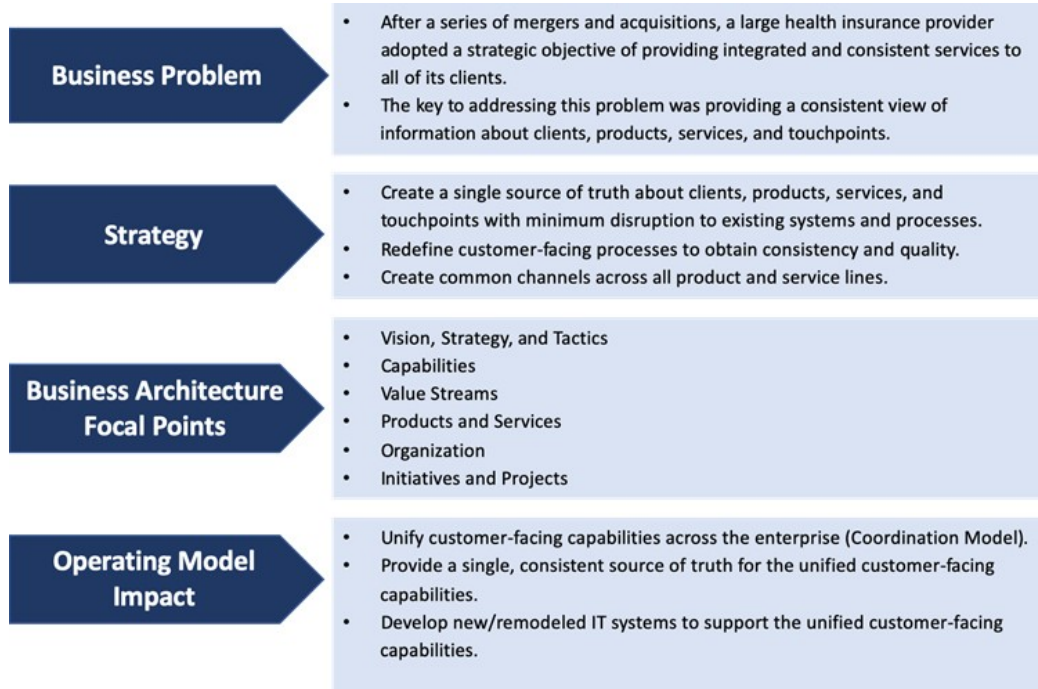


Figure 9 - MIT CISR Operating Model Case Study

### Strategy& Case Study – Digital Transformation

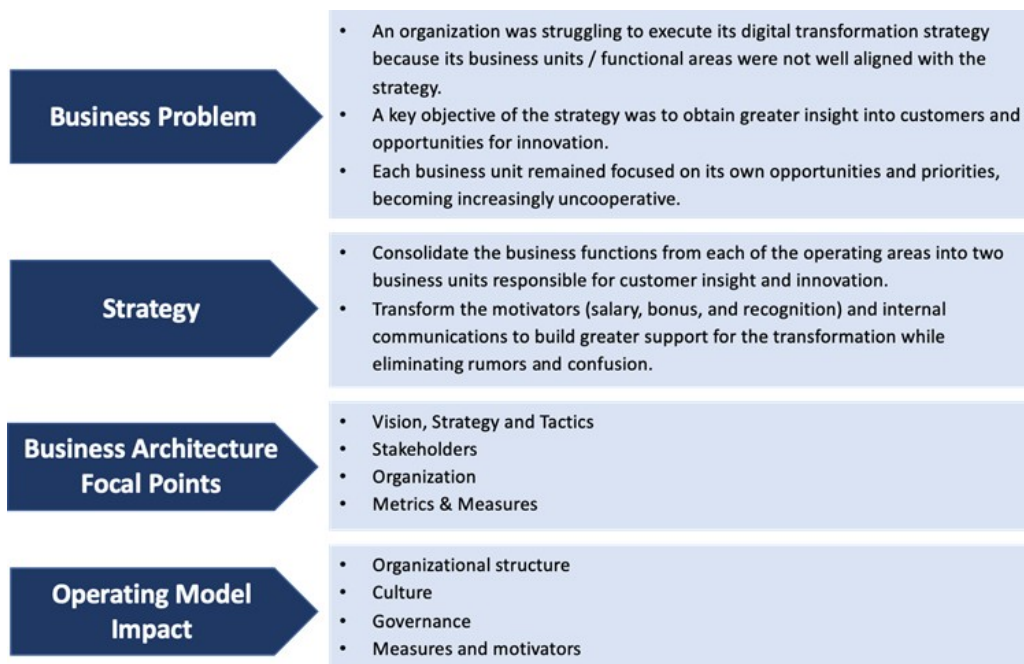


Figure 10 - Strategy& Operating Model Case Study



## Bain Case Study – Automotive Industry

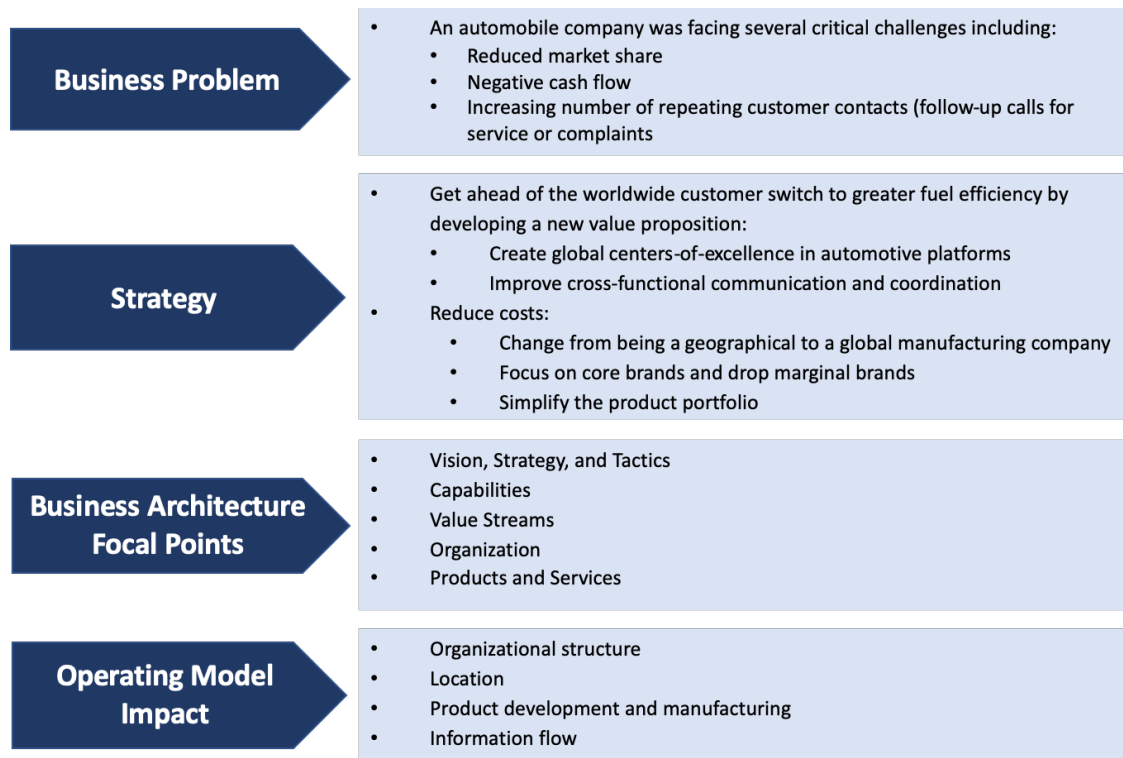


Figure 11 - Bain Operating Model Case Study

## Operating Model Canvas Case Study – Fast Fashion

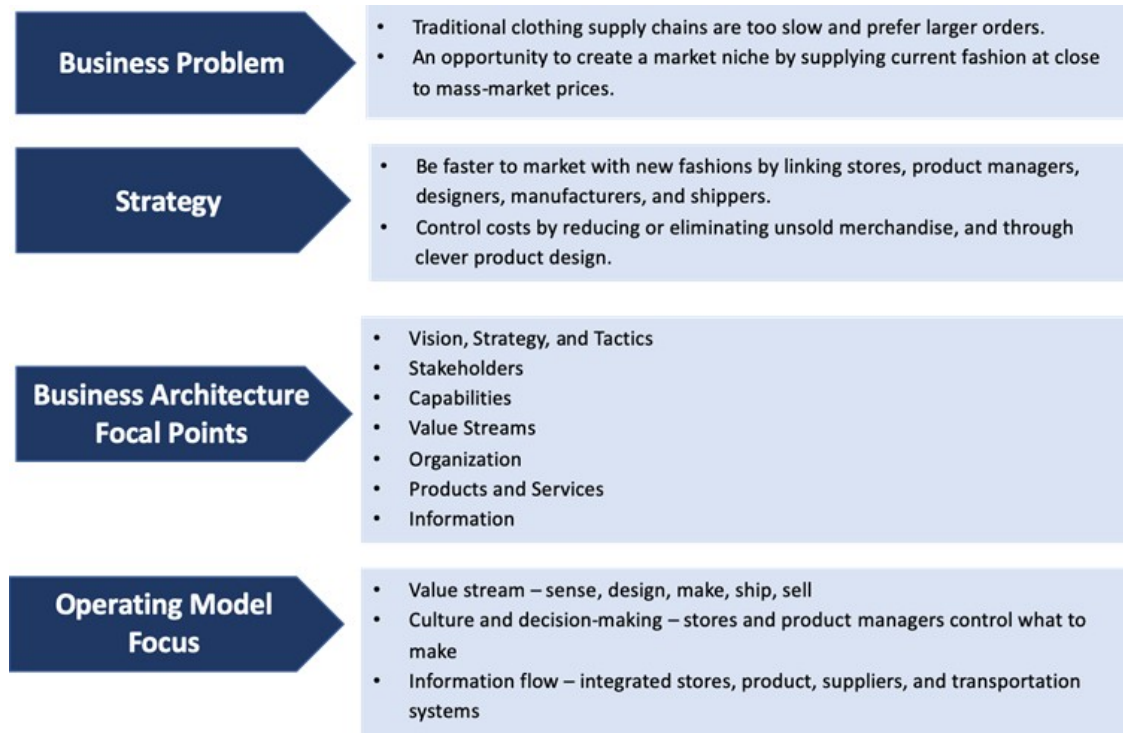


Figure 12 - Operating Model Canvas Case Study

## Conclusion

This white paper outlines the importance of the operating model framework as one of the key architectural components for driving business strategy through to execution. It provides a brief description of a method for assessing a strategy using the business model, the business architecture, and the associated operating model. The key message is that any strategy assessment is less likely to be complete or effective if one considers the business model or business architecture in isolation.

A business architecture practitioner should now be able to recognize the differences between an operating model and a business model, and to understand how to utilize both to ask appropriate questions to help decision-makers drive out strategy and tactics. A business architecture practitioner should also be able to explain how and when an operating model, and which type or types of operating model framework, should be used for decision-making and analysis.

The conceptual framework presented in the Operating Model Overview section is an abstraction that covers each of the example frameworks subsequently presented. Once a specific operating model framework is selected for use, a business architecture practitioner can:

1. Associate each element of the chosen framework to a high-level operating model domain.
2. Associate each operating model element to the business architecture domains that will be changed by a course of action, starting with the capabilities and value streams, then extending the analysis to the organization, information, vision, strategies, tactics, initiatives, and projects.
3. Analyze lower-level operating model details while being guided and informed by the business architecture.

The nature of an organization's objectives, its strategic management, team management, organizational collaboration potential, and overall culture will help a business architecture practitioner select the most appropriate operating model framework (or elements across multiple frameworks) that are applicable to a particular business strategy. The intent is that this analysis will ultimately inform roadmap development for the delivery of the organization's strategic objectives.

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<sup>1</sup> Marne de Vries, Alta van der Merwe, Paula Kotzé, and Auroa Gerber, “A Method for Identifying Process Reuse Opportunities to Enhance the Operating Model”, *Proceedings of the 2011 IEEE IEEM*, <https://ieeexplore.ieee.org/document/6118067>

<sup>2</sup> Steve DuPont, Karen Erwin, Bryan Lail, and Stephen Marshall, “*Linking Business Models with Business Architecture to Drive Innovation*”, Business Architecture Guild® whitepaper, August 2015, <https://cdn.ymaws.com/www.businessarchitectureguild.org/resource/resmgr/docs/linkingbusinessmodelsb.arch.pdf>

<sup>3</sup> Tim Brown, *Change by Design* (New York: Harper Collins, 2009)

<sup>4</sup> Jeanne Ross, Peter Weil, and David Robertson, *Enterprise Architecture as Strategy* (Harvard Business School Press, 2006)

<sup>5</sup> Ashok Divakaran, Gary Neilson, and Jaya Pandrangi, “How to Design a Winning Company”, *strategy+business*, Autumn 2013, <https://www.strategy-business.com/article/00194?gko=69783>

<sup>6</sup> Paul Leinwand and Cesare Mainardi, *The Essential Advantage: How to Win with a Capabilities-Driven Strategy* (Harvard Business Press, 2011)

<sup>7</sup> Andrew Campbell, Mikel Gutierrez, and Mark Lancelott, *Operating Model Canvas* (Van Haren Publishing, 2017)

<sup>8</sup> Michael Porter, “How Competitive Forces Shape Strategy”, *Harvard Business Review* 57, No. 2, March–April 1979), pp 137–145.