BUSINESS ARCHITECTURE
GUILD

Linking Business Models with Business Architecture to Drive Innovation

A Business Architecture Guild Whitepaper

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Executive Summary

> *A business model describes the rationale of how an organization creates, delivers, and captures value.[1]*

Organizations are expanding their innovation focus from products and processes to business models in order to remain competitive in the face of shrinking product lifecycles and growing market uncertainties. They are increasingly embracing the business model concept in strategic planning, accompanied by a greater focus on customers and corresponding value propositions.

In a parallel development, organizations are using business architecture to provide increased business transparency and maximize the likelihood of an effective and successful deployment of strategy.

> *Business architecture is defined as "a blueprint of the enterprise that provides a common understanding of the organization and is used to align strategic objectives and tactical demands."[2]*

Despite the natural progression from business models (as an expression of business strategy) to business architecture (as the actionable blueprint for that strategy), these two concepts have evolved separately. To date, limited consideration has been given as to how they relate to each other.

This white paper aims to address that gap, by demonstrating that the two approaches not only relate to each other but also work well together to effect change. We further expand on this synergy with a practical case study. In doing so, we illustrate how business models play a crucial role in business innovation and are realized more effectively through the practice of business architecture.

Introduction

In the mid-nineties, the advent of the Internet era coupled with accelerating globalization forever changed the business landscape. The rapid pace of e-commerce and virtualization technologies created vast new markets and, in the process, eliminated many businesses that did not make the leap from established "brick and mortar" business structures. The accelerating pace of technology and market change forced companies to expand their focus of innovation from

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[1] A. Osterwalder, Yves Pigneur et al, *Business Model Generation* (John Wiley & Sons, Inc., 2010. Page 14).

[2] Business Architecture Guild, *A Guide to the Business Architecture Body of Knowledge®, v 4.5 (BIZBOK® Guide)*, 2015. Part 1, Page 1.

products and processes to rethinking the logic of value creation and value exchange. Decreasing time-to-market along with an ability to evolve rapidly became critical factors in developing sustainable businesses.

Conventional methods of viewing and transforming a business such as business process re-engineering could not provide the big picture that senior executives and strategic planners needed to communicate and evaluate new business proposals. Business leaders began to refer to new ways of creating and monetizing value as "business models." New types of business models also appeared, with names such as "freemium" and "long tail." Yet, despite becoming commonplace, the term "business model" remained ambiguous until 2010, when the now widely accepted definition introduced at the beginning of this paper emerged with the publication of *Business Model Generation* by Alexander Osterwalder and Yves Pigneur.

Business model frameworks had also begun to emerge at the turn of the millennium, with works from academics and theorists such as Timmers (1998), Osterwalder (2004), Chesbrough (2007), and Lindgren (2012). While each framework has its proponents, it was Osterwalder and Pigneur's simple-to-use methods and tools in *Business Model Generation* that popularized the Business Model Canvas and established it as a common framework for business model innovation. We use the Business Model Canvas in this paper as the business model framework to explain the concepts around business model alignment with strategy and business architecture. Appendix A provides an overview of the Business Model Canvas.

The Impact and Benefit of Business Models

Executives leverage business models in conjunction with other strategic planning artifacts, business architecture blueprints, and tools focused on organizational or cultural fluency. Business models highlight the critical relationships between the various elements that constitute a business in ways that are:

- Not fully covered by other approaches or techniques and, therefore, contribute to a more complete examination of costs, revenues, and other business perspectives; or
- Covered by other approaches or techniques—but through a different method—and thus business models help cross-check other points of information

The business model's focus of impact is improved communication and understanding between:

- The strategist and colleagues working together in the enterprise architecture domain
- The strategist and business executives
- Business executives and the rest of the organization

Business models typically improve communication among business executives because they provide a common perspective for the organization's core business logic, thus helping executives "get on the same page." Having this common perspective, structure, and understanding allows for more effective business design[3] and enables the successful deployment of an organization's business models.

In essence, business models provide clarity of thought using a different point of view from the one provided by traditional strategic planning methods. Business models foster the level of thinking required for innovation.

A Structured Approach for Business Model Innovation

In order to steer the business in the face of constant change (or disrupt the market for its own benefit), business strategists are increasingly turning to business model innovation to rethink their business models or to create new ones. These strategists use established business model frameworks, like the Business Model Canvas, in conjunction with a design-oriented approach to develop their business models. They often employ design thinking, in particular, to uncover and develop new ideas. See Appendix B for details on design thinking.

Business model innovation occurs when an organization takes its proposed business models from ideation to implementation. Using a design-oriented approach, business model innovators first construct observations about their environment and the organization's position within that environment, including a description of the current-state business model. Then, they develop and test a set of hypotheses using alternative future-state business models. They design prototypes of those business models to test and validate assumptions, using software-based models and simulation tools to assist the validation process. Most importantly, business model innovators use test results to confirm or reject the hypotheses and adjust or iterate the business model prototypes accordingly. Finally, they select the optimal business model and describe it in sufficient detail through business architecture to support planning, development, and deployment.

While it might be a relatively easy task to conceive a new business model, implementing it and then continuously adapting it are not so easy. However, in the current environment of constant and rapid change, implementation and adaptation are exactly where successful organizations

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[3] Business Design is "a human-centered approach to innovation. It applies the principles and practices of design to help organizations create new value and new forms of competitive advantage. At its core, Business Design is the integration of customer empathy, experience design and business strategy." *What is Business Design?* Rotman DesignWorks, Rotman School of Management. 2015.
rotman.utoronto.ca/FacultyAndResearch/EducationCentres/DesignWorks/About BD.aspx.

need to excel. It is not sufficient to establish a business model and then stop there; companies must constantly reevaluate and redefine basic precepts including:

- What the company currently does
- How the company does it
- What the company *could* do
- How the company could do it
- With whom the company should do it
- How each piece interacts with other parts of the company's business ecosystem and the world at large[4]

The last point is particularly significant. When constructing a business model, organizations should ensure that they design and build all elements of that business model for agility to enable the business to thrive in a state of constant motion.

Linking Business Models to Business Architecture

Organizations must be able to articulate their business models in sufficient detail in order to deploy them successfully. A business articulates business models most effectively through the practice of business architecture. Additionally, businesses that leverage business architecture as a vehicle for realizing one or more business models gain value from the synergies across both disciplines. This includes using business architecture to visualize the external and internal impacts of the business model.

Relationship to the External Environment

Organizations should design and evaluate their business models within the context of the external business environment (the external factors that influence a company's operating situation[5]) as shown in figure 1. Considering external factors helps a business evaluate and adapt business models to different contexts. For example, a business model that performs well in North American markets may not transfer well into European markets. Business architecture articulates not only the business model details but also key elements of the external business environment (such as stakeholders and business locations) to ensure that a business can deploy an effective blueprint of the business model in all intended contexts.

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[4] Phil Simon, *The Age of the Platform: How Amazon, Apple, Facebook, and Google Have Redefined Business* (Motion Publishing, 2011).

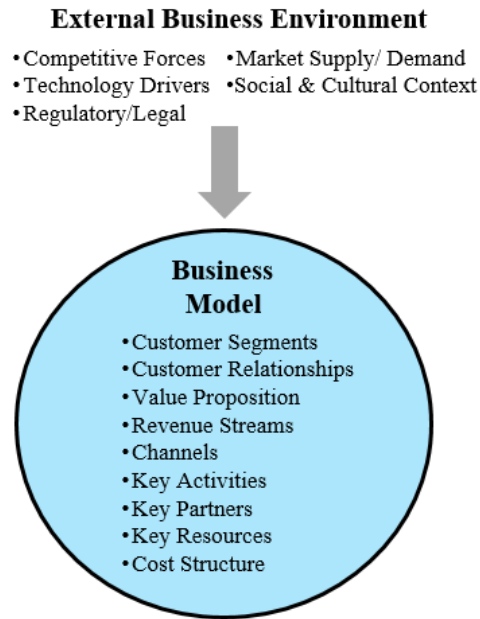[5] Derived from businessdictionary.com

External Business Environment
- Competitive Forces
- Market Supply/ Demand
- Technology Drivers
- Social & Cultural Context
- Regulatory/Legal

Business Model
- Customer Segments
- Customer Relationships
- Value Proposition
- Revenue Streams
- Channels
- Key Activities
- Key Partners
- Key Resources
- Cost Structure

Figure 1: External Influences in Business Model Development

Relationship to the Internal Environment

In contrast to the external environment, business models do not fully depict the details of how the internal resources of the business work together to realize the business model. The organization's operating model largely addresses this concern.

> *An operating model is an abstract representation of how an organization operates across a range of domains in order to accomplish its function.*[6]

Operating models overlap with business models in areas of business infrastructure and cost structure. Like business models, operating models include delivery channels and business infrastructure aspects but typically introduce additional, more granular aspects, including processes and data. As such, operating models tend to add a layer of detail to describe *how* the elements of the organization and infrastructure work together to realize business models in the most optimal way, including intended levels of standardization and integration across the enterprise. In both cases, organizations should further articulate business models and operating models using business architecture in order to enable effective deployment.

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[6] Marne de Vries et al. *A Method for Identifying Process Reuse Opportunities to Enhance the Operating Model.* 2011 IEEE International Conference on Industrial Engineering and Engineering Management. en.wikipedia.org/wiki/Operating_model

From Sketch to Blueprint

As described earlier, much of the current attention around business models is within an innovation context. Entrepreneurs and strategists use summary views or "sketch views" to communicate key business model concepts, which in turn represent a conceptual design of the business (see figure 2).
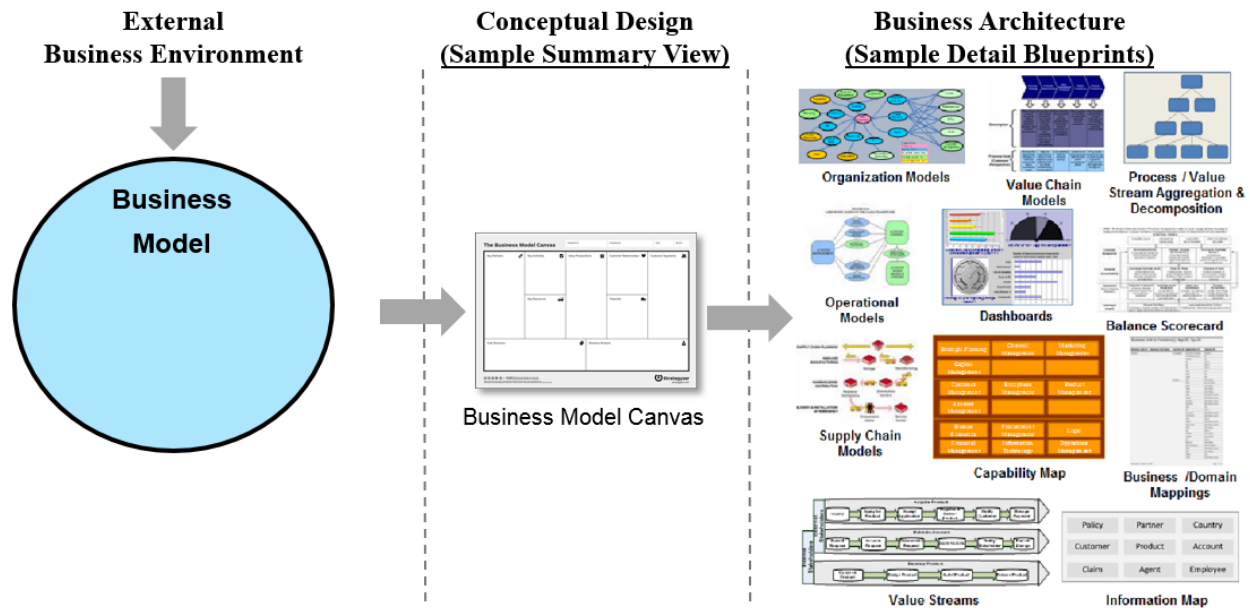

Figure 2: Business Models in Conceptual Design and Business Architecture[7]

To use an analogy from the conceptual design activities within the construction industry, architects produce a limited number of alternative sketches (viewpoints) of the proposed business models with just enough detail to analyze feasibility and risk. These summary views also support strategic decisions for how to meet the goals and objectives of the business.

However, these sketch views do not contain sufficient information for deployment. Once a firm's strategic direction has been identified and refined through a series of business modeling scenarios, the business architecture needs to be developed to offer more detailed blueprints of the business that can be leveraged for planning, option analysis, further business design, initiative planning and scenario deployment. In this context, the business architecture practitioner analyzes and maps the business strategy and the associated business models to the business

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[7] 1. Depiction of Business Model Canvas from strategyzer.com; 2. Depiction of Operating Model Sketch from *Using Business Architecture to Realize your Operating Model*, S. DuPont, Boeing, March 2014 in Business Architecture Innovation Summit 2014, Object Management Group/Business Architecture Guild; 3. Depiction of Business Architecture Diagrams from *BIZBOK® Guide* v4.5 Part 1 p. 4.

architecture focusing on key business architecture aspects including strategy maps, capability maps, information maps, and value streams. In the end, the business architecture blueprints embody a fully detailed business model perspective that management, planning teams, and practitioners can use to express or map to the operating model perspective.

Using Business Models to Solve Key Business Problems

It is important to identify the manner in which strategists and architects might use business models to help solve key business problems. To define an actionable blueprint, the business strategist uses the Business Model Canvas to ask questions and diagnose pain points for the business. For example, discussions around problem areas associated with Customer Relationships may lead to improvements in Key Activities (such as customer service). That could then drive new Channels and Key Resources, such as a 24X7 call center, more web-based self-service, social media engagement, or improved knowledge management regarding customers' situations to provide pre-emptive communication.

The use of probing questions and what-if scenarios are key to the process of business model design and analysis. A few examples include:

- Are there new or emerging Customer Segments for our current products and services? If so, what type of relationship do we want to build? What capabilities should the business consider adding to Customer Relationships in order to realize that relationship, penetrate that new segment, keep those customers, and serve them?
- What level of channel integration is required?
- What if the company could disrupt the market before someone else does? In terms of the Value Proposition, what are those disruptive characteristics? What capabilities are needed to realize the Value Proposition?

These types of questions help spur creative thinking and speed up the decision-making process. This advances the organization toward its target business model faster.

Applying the Business Model Canvas

The role of the business architecture practitioner in using a tool like the Business Model Canvas might be as simple as helping business leaders build a common perspective that aligns the organization behind a clear strategy, providing structure and traceability that might otherwise be lacking. At the other extreme, the business architecture practitioner can use a business model to help define and shape the future direction of the business. This doesn't mean that the business architecture practitioner owns strategy or makes leadership decisions but rather provides the underlying methodology and analysis to proceed logically all the way from market understanding

through design and validation, business transformation, and finally delivery of business results.

In its most basic form, the business architecture practitioner uses business models to create a clear depiction of a firm's business logic. If the enterprise is well-established (versus a start-up), then the business leaders should have an inherent understanding of the elements of the business represented by the Business Model Canvas. However, they are not necessarily aligned in their thinking of how each element affects other parts of the business, nor do they have a complete picture of the entire business model to help them make decisions.

Assembling executives for a facilitated group dialogue provides the right collective input for the Business Model Canvas, so that the model accurately describes the business environment from markets to value propositions to revenue—with a common foundation for analysis. The business architecture practitioner can then use that agreed-upon framework to improve and validate the business model through design and analysis. This process, combined with design thinking, can greatly facilitate business model innovation.

To illustrate these concepts, we will start with a simple example of business model innovation and then build a case for incorporating business architecture to complete and validate the model. Our example uses a business model design scenario that was introduced at a business architecture industry workshop in 2014.[8] This scenario theorized a company named Xanadu, a leader in smartphone technology with a focus on business customers needing the latest in mobile collaboration tools. Global sales had peaked in 2013 at $5.6B, but declined 5% in 2014. The company forecast a similar outlook in 2015, with market research indicating a drop in customer satisfaction as being the root cause.

The company leadership pushed to explore innovative change in its customer segments and business capabilities to increase customer satisfaction. The goal of the scenario was to help stakeholders use the Business Model Canvas as a structured approach to evaluate and redesign the business model.

Figure 3 depicts Xanadu's current-state business model. To address the executive request, marketing and product experts worked with the business architecture practitioner to focus on customers and revenue (on the right-hand side of the canvas), then functional and operational

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[8] Scenario from *Business Architecture & Business Models*, S. DuPont, K. Erwin, J. Lail, and F. Fons presentation to Business Architecture Guild Innovation Workshop Sep 2014, Austin, Texas. businessarchitectureguild.org/gallery/ViewAlbum.aspx?album=329253.

subject matter experts shifted to a capabilities/cost focus on the left.[9] This type of usage reflects a natural flow from a focus on new market opportunities on the right to exploring the key elements required to realize the business model on the left.
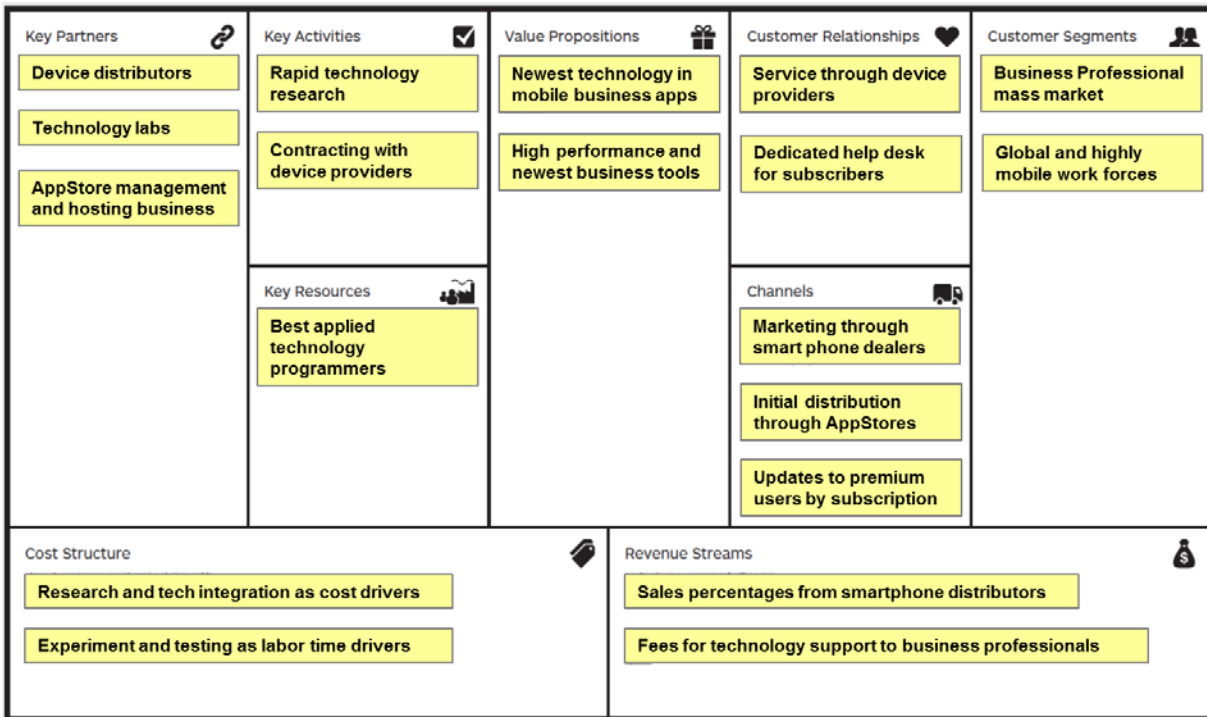

Key Partners 🔗	Key Activities ☑	Value Propositions 🎁	Customer Relationships ❤	Customer Segments 👥
Device distributors	Rapid technology research	Newest technology in mobile business apps	Service through device providers	Business Professional mass market
Technology labs	Contracting with device providers	High performance and newest business tools	Dedicated help desk for subscribers	Global and highly mobile work forces
AppStore management and hosting business				
	Key Resources 🏭		Channels 🚚	
	Best applied technology programmers		Marketing through smart phone dealers	
			Initial distribution through AppStores	
			Updates to premium users by subscription	

Cost Structure 🏷	Revenue Streams 💰
Research and tech integration as cost drivers	Sales percentages from smartphone distributors
Experiment and testing as labor time drivers	Fees for technology support to business professionals

Figure 3: Xanadu Current-State Business Model

Based on this simple design-based scenario, we can describe the manner in which a business architecture practitioner builds and articulates the business model to enable deployment.

We first highlight the distinction between the left side (costs, organization, and infrastructure) and the right side (markets, revenue) of the Business Model Canvas. In the real business world, there is often a lack of understanding of the connections—the relationships—between the two sides. The business architecture practitioner can help fill that gap.

Assuming that the customer/revenue side of the model is reasonably well-defined and understood and that stakeholders have bought into the proposed value proposition, the next step is to determine the roles, activities, teaming, cost structure, and other details on the business capabilities/cost side that are required to deliver that value proposition. Capability mapping is a particularly effective means to take stakeholders from the right-hand side of the

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[9] More detail on these stakeholders and activities can be found in *Transforming the Business for a new Customer Segment*, J. Bryan Lail in journal Delivering Competitive Advantage Through BPM, Oct 2012, p. 25.

Business Model Canvas into a more detailed gap analysis comparing different areas of the business, and prioritizing changes on the cost side of the model.

Again, this does not mean the business architecture practitioner is taking on someone else's role but rather that the business will make the journey much faster and more effectively using business architecture. This part of the journey begins by holding work sessions with the subject matter experts (SMEs) for each business model under consideration, i.e., each combination of customer segment and value proposition. The SMEs' common understanding of the revenue side of the model forms the basis for stepping back and examining the fundamental capabilities of the business. The business architecture practitioner leverages the capability map as the assessment framework to surface and assess gaps across the various business models.

Each work session applies the heat mapping discipline to the capability map, which allows the business to leverage the capability map to surface business model gaps and related weaknesses (e.g., red for critical risks, yellow for minor issues, green for satisfactory performance). Management and planning teams can then assess capability gaps to determine the skills, roles, activities, investments, and other operational changes needed to close those gaps. Even more strategically, the business may compare the size and shape of these gaps across various business models to identify the potential big winners for the business.

Continuing with the Xanadu scenario, the leadership team decided on the strategic shifts shown in figure 4 for the revenue/customer-facing side of the business model. To make this example more concrete, the right-hand column provides an explicit example of how the business would implement a new market innovation. These strategies provide a focus for determining what needs to change significantly in the business, but they do not specify where the innovation needs to occur across roles, activities, cost structures, and other aspects of the business model.

Business Model Cell	Strategy for Innovation	Innovation Example
Customer Segment	Focus primarily on customer's Sales Force, who have a pressing need for cutting edge business applications	Bring a new value proposition to customer sales forces with strong company global aspirations and highly mobile early adopters
Customer Relationships	Establish a co-creation type of partnership with the Sales Professionals, with better connection to their business networks and our brand	Greater usage earns points and discounts, set rewards for referring our apps to their network, provide real-time response to suggestions for improvements
Value Propositions	Provide user experience that is best in market, using collaboration features in existing business applications	An upgrade to a mobile customer pipeline tool allows insight across sales channels with built-in video chat across sales force

Figure 4: Customer Strategies Driving Innovation

The business architecture practitioner uses the capability map to describe the key capabilities and corresponding outcomes the business must focus on to realize the business model, independent of organization or specific process implementation.[10] They then take the stakeholders through a heat-mapping exercise to assess the proposed changes to the business model (and the associated risk) across all areas of the business. A red attribution, such as that shown for Customer Management in figure 5, might indicate that the business must fundamentally shift how it performs that capability, such as who does it and with what skills (perhaps with a partner organization). A yellow attribution indicates a need for change with less dramatic impact on current practices.
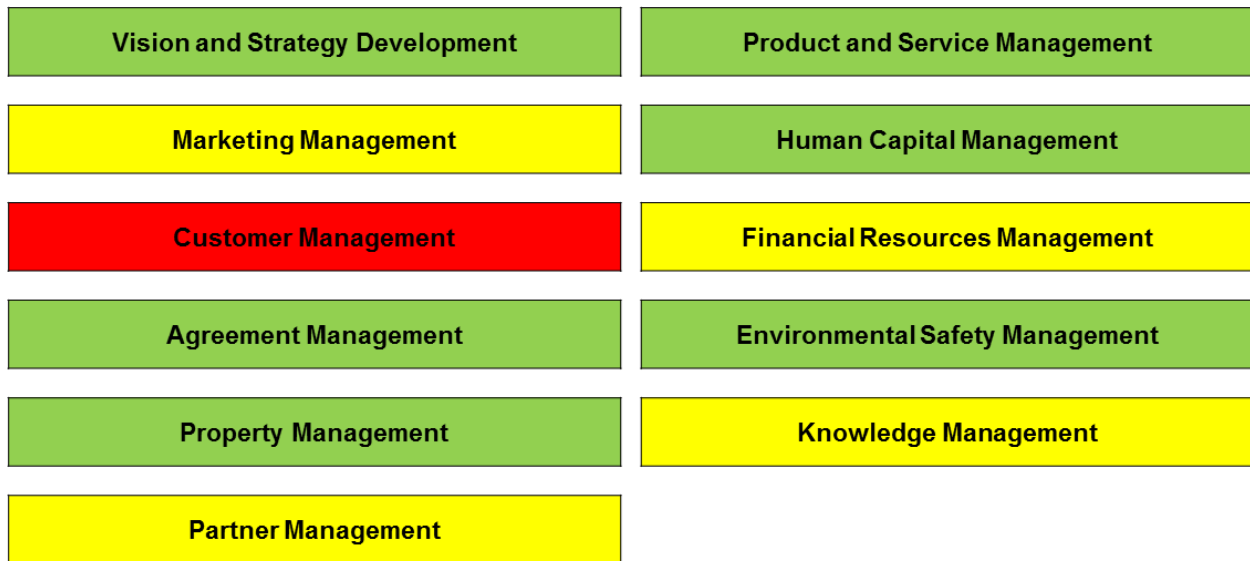
Vision and Strategy Development	**Product and Service Management**
Marketing Management	**Human Capital Management**
Customer Management	**Financial Resources Management**
Agreement Management	**Environmental Safety Management**
Property Management	**Knowledge Management**
Partner Management	

Figure 5: Xanadu Capability Heat Map

Figure 6 provides an even more detailed example of how the prioritized capability gaps might translate into business and operating model shifts in terms of roles, activities, strategic partnerships, or cost structure. The large gap in Customer Management may demand the implementation of a new value stream to deliver different results, breaking down existing organizational boundaries, driving new roles and skills, and implementing new processes and metrics.

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[10] For a thorough explanation of capability mapping, see *BIZBOK® Guide* v4.5 Section 2.2 pp. 50-99.

Business Capability Gap	Innovation Example
Customer Management	A fundamental new value stream implemented with roles and activities focused on end-to-end delivery for customer service
Marketing Management	Skills and funds increased on understanding the mobile, collaborative needs of customer's sales forces travelling internationally
Partner Management	New partner developed with expertise on in-app marketing ads
Financial Resources Mgmt.	Investment methods restructured with customer satisfaction return on investment metrics
Knowledge Management	Leadership skills and incentives tied to customer survey responses

Figure 6: Xanadu Innovation Approach

This example shows how business model innovation and business architecture practices can work together to enable organizations to design and deploy business models that provide a sustainable competitive advantage. The process enables a more complete picture of the marketing and revenue strategy along with the necessary transformation to achieve that strategy. Both, in tandem, drive a successful new business model.

Moving from Ideation to Innovation

There is no question that the business model concept has captured the imagination of business strategists, planners, and business architecture practitioners. It has become a key source of inspiration and innovation for organizations seeking long-term growth and sustainable competitive advantage across a variety of industries. The opportunity now is to make business modeling even more effective and appealing to a wider business audience.

Delivering on the promise of business model innovation—having a significant, measurable impact on the outside world—requires strategists and business architecture practitioners to move well beyond the ideation stage. The industry needs to expand and strengthen the business model innovation process to make it more robust and repeatable, faster and easier to execute, and more accessible and less conceptual. For this to occur, it is necessary to broaden the application of the discipline, engage the right people and skills, employ a more formal and structured process, and leverage additional software tools and capabilities. These developments can advance the theory and practice of business model innovation in the future.

Business Modeling as an Organizing Principle

The potential exists for business models to be used in new ways to facilitate innovation. Because business models focus on value creation, delivery, and capture, they are naturally suited as an organizing principle for a company's core business logic. Large organizations with multiple

business models may benefit by describing their business models, analyzing them, classifying them, and combining them in novel ways to grow their business.

As a hypothetical example, a manufacturing company decides to create a new business model to produce new products under a license agreement. Having previously described its business models using a business model framework, the manufacturer calls on its existing inventory of business model descriptions to identify business models that have similar characteristics (e.g., value proposition, licensing arrangement) in order to configure the new business model. This approach could offer an effective way to re-use business model designs that have already been developed. It could also enable rapid business model analysis such as understanding the synergies of the new licensing business model with existing business models and identifying impacts of the new business model on the existing operating models.

The concept of re-using business model designs is in its infancy within the business architecture discipline. Despite this, the payoffs in terms of growth, increased agility, and business integration are potentially significant.

A Required Mindset and Skills

Effective business model innovation requires a different mindset and skills from those normally associated with business analysis and reengineering. Organizations must embrace creative problem solving approaches, like design thinking, in order to develop and deploy innovative business models capable of providing a sustainable competitive advantage. This is a significant cultural shift for many organizations. For the business architecture practitioner this means shifting mindsets and augmenting existing analytically-based methods with design-oriented methods.

A Design Framework for Business Modeling

Because market forces are changing rapidly, business model innovation requires agile deployment to maximize the effectiveness and sustainability of new business models. To achieve this, the business architecture practitioner must be able to articulate the details of business strategy and business models, through business architecture, and quickly drive actionable plans. Figure 7 illustrates how the business architecture practitioner uses business strategy and business models as integrated input into the business architecture design process:

- The strategic plan defines the organization's vision and mission, objectives and goals, strategies and tactics
- The business model sets out the agreed method for creating, delivering, and capturing value

The strategic plan informs the business model and vice versa. The business architecture practitioner uses the inputs to articulate business needs from capabilities and information to changes in organizational alignment. This work enables management to prioritize and set funding so the business architecture practitioner and business planners can create *actionable* deployment plans.
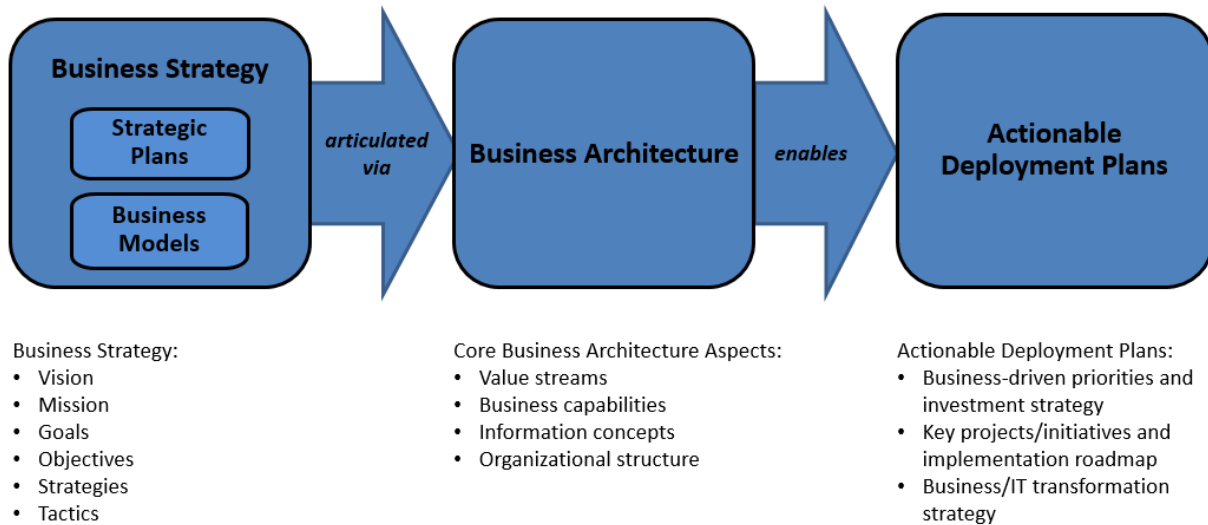

Business Strategy:
- Vision
- Mission
- Goals
- Objectives
- Strategies
- Tactics

Core Business Architecture Aspects:
- Value streams
- Business capabilities
- Information concepts
- Organizational structure

Actionable Deployment Plans:
- Business-driven priorities and investment strategy
- Key projects/initiatives and implementation roadmap
- Business/IT transformation strategy

Figure 7: Business Models in Context of Strategic Plans, Business Architecture and Deployment[11]

At the end of this process, the organization has a clear, transformational roadmap, enabling the effective execution and delivery of business strategy and corresponding support for the company's business model.

A New Set of Tools

A major area of much-needed research and development to support these concepts comes in the form of tooling—software that will help:

- Create and communicate business model ideas before committing resources to planning or implementation
- Promote iterative development and facilitate the testing of "what-if" scenarios before committing to change
- Enable rapid decomposition or abstraction of the various elements that make up the model

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[11] Business Architecture Guild, *A Guide to the Business Architecture Body of Knowledge®, v 4.5 (BIZBOK® Guide)*, 2015. Part 3, Page 259.

- Identify critical relationships among elements and the impact of change in attributes or behavior
- Preserve traceability of the thought and decision processes from one model to the next
- Provide collaborative, crowd-sourced approaches to business model design, testing, and implementation

There is no shortage of tooling options for the ideation stage of business model innovation—helping to move business models on paper into a digital environment, promoting virtual forms of collaboration, and rapid iteration. Unfortunately, the available tooling has been restricted to the business model framework; the link to the architecting and implementing stages of the process is largely missing. Solution providers should strive to fill this gap in the next generation of software, adding links to business architecture and other layers of enterprise architecture, business simulation, decision support, and project management tools. This automation will accelerate business model design's marriage with the innovative work in these disciplines.

Looking Ahead

Business modeling is primarily concerned with ideation—capturing and synthesizing different ideas from across the business into a cohesive description of the future state. Business model innovation takes the concept to a completely new level, requiring new skills, tools and structured methods built around design thinking and agile practices. Done well, it has the potential to change the rules of the game.

Most importantly, organizations need to view business model innovation as a continuous process. Never stop observing, hypothesizing, prototyping, testing, and iterating. Successful business modelers of the future will go through the process whenever the need arises—typically triggered by a change in the external environment—rather than waiting for an annual strategic planning meeting. This responsive approach to strategic planning is essential given the extent and rate of business model disruption taking place today.

Finally, businesses will most likely attain the most desirable outcomes if they embrace not only regular use of business modeling techniques, but employ complementary business architecture practices. Business modeling's long-term success and effectiveness as a business design tool rests on a business' ability to turn conceptual ideas, which look great on paper, into deployable, future-state business blueprints and related solutions.

Conclusion

Businesses are turning more towards the use of business models as a key component of their strategy design and innovation processes. However, the business model by itself does not

provide sufficient granularity for organizations to construct detailed plans to realize those strategies. That is where business architecture plays a critical role in articulating and enabling the designs prompted by a business model.

This white paper demonstrates that business model innovation combined with business architecture provides planning teams with a more sophisticated set of options for moving from strategy through to actionable deployment. In doing so, it underscores the crucial role that business models can play in the effective execution of business strategy, while highlighting a number of opportunities to increase their use and effectiveness as an everyday business tool.

Appendix A

Overview of the Business Model Canvas

The framers of the Business Model Canvas purposefully created it to be an elegant, one-page representation of a business model that:

- Provides a shared perspective and understanding of an organization's business model(s)
- Enables informed discussion among business executives on business issues and necessary change
- Fosters a design-oriented approach to identify what a business can do differently to maximize value exchanges between market participants
- Enables collaboration and co-creation of current state and future state business model options
- Focuses on the key revenue and cost components supporting an agreed value proposition for a particular customer segment

The Business Model Canvas includes nine building blocks as depicted in figure 8:

- Customer Segments—the different groups of people or organizations an enterprise aims to reach and serve
- Value Propositions—the benefits customers can expect from products and services
- Channels—how a company communicates with and reaches its Customer Segments to deliver a Value Proposition
- Customer Relationships—the types of relationships a company establishes with specific Customer Segments
- Revenue Streams—the revenue a company generates from each Customer Segment
- Key Resources—the most important assets required to make a business model work
- Key Activities—the most important things a company must do to make its business model work
- Key Partnerships—the network of suppliers and partners that make the business model work
- Cost Structures—all costs incurred to operate a business model

Figure 8: The Business Model Canvas[12]

The Business Model Canvas is a particularly useful tool for understanding how a business handles its key determinants of revenue and cost, the value proposition it uses to go to market, the customers it serves, and the resources it needs to execute. These elements play a crucial step in laying the framework for:

- The business case to move forward
- The remaining work to address the specific application, information, and technology solutions
- Achieving alignment between the business strategy and deployment plans

Identifying and working with a clearly articulated business model that supports the goals and objectives of the organization is a critical success factor for executing strategy—from inception to deployment. The Business Model Canvas can help expose capability gaps that exist with a proposed business model to assist strategists in charting the necessary course of action.

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[12] A. Osterwalder, Yves Pigneur et al, *Business Model Generation* (John Wiley & Sons, Inc., 2010. Page 14).

Appendix B

Design Thinking

Design thinking is a discipline that uses a design-oriented approach and mindset to solve problems. It is "a discipline that uses the designer's sensibility and methods to match people's needs with what is technologically feasible and what a viable business strategy can convert into customer value and market opportunity."[13]

Unlike analytical thinking alone, which is an approach associated with the "breaking down" of ideas, design thinking incorporates a mindset and process based around the "building up" of ideas. Wild ideas are encouraged since they often lead to extraordinary results that exceed initial expectations.

Design thinking is a discipline that uses design-based methodologies and creative techniques to uncover and develop new ideas. It then provides a formal structure for testing and selecting the most effective options. One version of the design thinking process has seven stages: *define, research, ideate, prototype, choose, implement*, and *learn*.[14] Other versions of the process exist with slightly fewer phases, but they all share the same essential structure: frame the problem, ask the right questions, create and explore new ideas, then select the best options for further testing and evaluation.

Some of the characteristics or personality traits to look for in design thinkers include:[15]

- **Empathy**: the ability to imagine the world from multiple perspectives—those of colleagues, partners, end-users, and customers (current and prospective)
- **Integrative thinking**: seeing the salient aspects of a problem in order to create novel solutions (i.e., new business models) that dramatically improve existing alternatives. This skill goes beyond reliance on analytical processes (those that produce either/or choices)
- **Optimism**: assuming that no matter how challenging the constraints of a given problem, at least one potential solution is better than the existing alternatives
- **Experimentalism**: posing questions and exploring constraints in creative ways that proceed in entirely new directions (not just looking to optimize a model through incremental tweaks)
- **Collaboration:** bringing together those parts of the business responsible for setting the

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[13] Tim Brown, *Design Thinking* (Harvard Business Review, 2008). hbr.org/2008/06/design-thinking.

[14] *The Sciences of the Artificial*, Herbert Simon, 1969.

[15] Tim Brown, *Design Thinking* (Harvard Business Review, 2008). hbr.org/2008/06/design-thinking.

vision and direction, with those tasked with executing it—in particular IT. The increasing complexity of products, services, customer experiences and the required technology requires the enthusiastic interdisciplinary collaborator, replacing the myth of the lone creative genius

About the Business Architecture Guild

A cadre of leading industry experts formed the Business Architecture Guild to develop *A Guide to the Business Architecture Body of Knowledge® (BIZBOK® Guide)* and to promote best practices and expand the knowledgebase of the Business Architecture discipline. The Business Architecture Guild is a member-based and member-driven not-for-profit organization dedicated to growing and disseminating authoritative information on Business Architecture. Contact us at info@businessarchitectureguild.org or at www.businessarchitectureguild.org.

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