

TEACHING ENTREPRENEURSHIP STUDENTS THE CONCEPT OF A BUSINESS MODEL

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ABSTRACT

Business models are presented as a powerful but frequently misunderstood and underemphasized pedagogical tool for entrepreneurship educators. Diverse perspectives regarding the nature of a business model are examined, and a strategically-focused approach is proposed. Different roles for a model in an entrepreneurial context are outlined. The available literature is synthesized in terms of the underlying components of a business model. Based on this synthesis, a framework is introduced for use by faculty and students in designing a business model or characterizing the model of an existing venture. The framework includes six major decision areas.

INTRODUCTION

A business model represents one of the most important, and least understood, concepts in entrepreneurship education. Faculty members routinely require students to develop original new product or service ideas, and, based on these ideas, to construct feasibility studies or business plans. Hence, the business plan is a de facto vehicle for translating a new business concept into a formal business enterprise. Yet, writing a business plan can often be a fairly mechanical process, where many specific questions are addressed, but the answers do not reflect a creative, well-integrated set of decisions that produce a viable, sustainable, profitable business venture. In short, students fail to produce a workable business model.

As an area of study, work on business models remains in its infancy. Surprisingly little attention has been devoted to this area by academic researchers, with much of the published work focusing on models of Internet-based businesses (Afuah and Tucci, 2001). As a result, the term 'business model' is used fairly loosely to refer to a number of different issues. No consensus exists regarding a definition, and few insights are available regarding the nature of a business model. Similarly, little is understood regarding how business models evolve, or why they succeed or fail.

At the same time, a business model represents a powerful pedagogical tool. The purpose of the current paper is to offer faculty members a pragmatic approach for use in teaching students the concept of a business model. Based on a synthesis of available perspectives, a workable definition of the business model is presented. The different uses of business models are highlighted. A framework consisting of six key decision areas is proposed for conceptualizing the entrepreneur's business model. Implications are drawn for entrepreneurship education.

WHAT IS A BUSINESS MODEL?

A beginning point is to provide students with a working definition of a business model. The term has been used to describe a company's unique value proposition (its business concept), how the firm uses its sustainable competitive advantage to perform better than its rivals over time (its strategy), and whether as well as how the firm can make money now and in the future (its revenue model). The terms business model, business concept, revenue model and economic model are often used interchangeably, resulting in

less than desirable rigor being applied when assessing the attractiveness of an opportunity or viability of a proposed new venture. Moreover, business models have been approached as architecture, design, pattern, plan, strategy, method, assumption, and statement.

In spite of this confusion, it would appear that the available definitions fall into three general categories based on their principal emphasis. These categories can be labeled strategic, operational and economic. The categories represent a hierarchy, in that the perspective becomes more comprehensive as one progressively moves from the economic to the strategic level.

At the most rudimentary level, the business model has been defined solely in terms of the firm's economic model. The concern is with the logic of profit generation. Relevant issues include revenue sources, pricing methodologies, cost structures, margins and volumes. Toward this end, Stewart and Shao, (2000) approach the business model as "a statement of how a firm will make money and sustain its profit stream over time"

At the operational level, the business model represents an architectural configuration (Timmers, 1998). Perspectives here focus on internal processes and design of the infrastructure that enables a firm to produce a unique value proposition. Examples of the key elements of such models include production or service delivery methods, administrative processes, resource flows, knowledge management, and logistical streams. These elements form the building blocks of the organization. Hence, Mayo and Brown (1999) refer to "the design of key inter-dependent systems that create and sustain a competitive business".

Definitions at the strategic level emphasize overall direction in terms of the firm's positioning in the marketplace. Here, value creation for stakeholders, including suppliers, customers and partners, becomes a consideration. The focus includes managing interactions and exchanges across organizational boundaries, with special consideration for growth opportunities. Business drivers are identified and measured. At this level, key elements of the model include stakeholder identification, value creation, differentiation, vision and values, and networks and alliances. Thus, Slywotsky (1996) describes a business model as "the totality of how a company selects its customers, defines and differentiates its offerings, defines the tasks it will perform itself and those it will outsource, configures its resources, goes to market, creates utility for customers and captures profits".

We propose that educators adopt the more strategic perspective. Thus, the business model subsumes the strategic positioning of the firm, underlying business concept, specific product offerings, core internal processes, and revenue model. To illustrate, consider the case of Dell Computer, one of the more notable entrepreneurial success stories in recent years. Started in 1984, the firm has grown to over \$32 billion in annual sales, placing it among the top fifty on the Fortune 500 list of largest U.S. corporations (Dell, 2002; MarketGuide, 2002). Dell continues to achieve an average annual growth exceeding 40 percent due in part to its adherence to a well-formulated business model. The company sells a mix of PC's, notebooks, workstations, servers, and software products. Their business concept involves selling customized computer solutions directly to customers at competitive prices. However, the Dell business model integrates strategic considerations, operational processes, and decisions related to the firm's economic model. It is a model designed around the elimination of intermediaries, systems that are built to order, a highly responsive customer service program, moderate margins and rapid inventory turnover, speedy integration of new technologies, and a highly efficient procurement, manufacturing and distribution process. Adherence to these elements guides not only operational decision-making, but the ongoing strategic direction of the firm. When it has deviated from this model, such as by selling through retailers, the results have been problematic.

THE VALUE OF A BUSINESS MODEL

Students must understand that firms fail in spite of well-constructed business models, and succeed with loosely-designed and sometimes poorly-designed models. Nonetheless, a business model can provide significant value to the entrepreneur and other stakeholders (e.g., employees, financiers, network partners, advisors, etc.). It serves at least five major purposes.

First, a model can help ensure that the entrepreneur brings a fairly logical and internally consistent approach to the design and operations of the venture, and communicates this approach to employees. Second, it represents the architecture for identifying key variables that can be combined in unique ways, and hence is a platform for innovation. Third, it can serve as a vehicle for demonstrating the economic attractiveness of the venture, thereby attracting investors and other resource providers. Fourth, the business model provides a guide to ongoing company operations, in that it provides parameters for determining the appropriateness of various strategic or tactical actions that management might be considering. As Brown (1998) notes, the model provides fundamental filters through which a company looks at the world. Finally, once a model is in place, mapping it can help facilitate necessary modifications as conditions change over time.

The importance of the business model can also be linked to the type of venture pursued by an entrepreneur. If a distinction is drawn between survival, lifestyle, dynamic growth, and speculative ventures, each requires a business model. However, the models may vary in formality and sophistication. The proprietor of a survival or lifestyle business may have an implicit model in mind that suggests how much must be sold to different segments, or how much prices can be negotiated. Alternatively, a more formal, comprehensive and potent model is needed to provide direction for growth and attract resources to a high potential venture. Similarly, with a speculative venture, the model is instrumental in communicating growth and profit potential to investors.

PERSPECTIVES ON MODEL COMPONENTS AND EVALUATIVE CRITERIA

Perhaps the most critical question upon which there is no consensus concerns the key components of a business model. A review of the existing literature finds the number of components mentioned by those authors who have attempted to characterize a firm's business model ranges from a low of four to a high of eight. Further, as many as twenty-four different items are mentioned by these authors as possible components of a business model. Of these, the most frequently cited are the firm's value offering or value proposition (11 mentions), profit/revenue/economic model (including revenue sources) (10 mentions), customer interface/relationship (8 mentions), partner network and roles (7 mentions), internal infrastructure/connected activities (6 mentions), and target markets/segments (5 mentions). Some of these items may overlap, such as customer relationships and the firm's network of partners, or the firm's revenue sources, its products/services and its value offering, or the partner network and the distribution channel. Separately, Osterwalder and Pigneur (2002) have argued that the varied components fall into three general categories: revenue/product aspects, business actor and network aspects, and marketing-specific aspects.

Attempts at decomposition of the business model generally acknowledge the existence of interdependencies among the components, but shed little light on the nature of the relationships (e.g., Afuah and Tucci, 2001; Petrovic, Kittl and Teksten, 2001). Hence, the consequences of changes in one or more components are not well-understood. Such understanding would seem critical for the development of insights regarding how business models evolve. Limited progress has also been made in establishing criteria for evaluating models or their underlying components (Barney, Wright and Ketchen, 2001; Dubosson-Torbay, Osterwalder and Pigneur, 2001). Sample criteria for assessing the overall model might include uniqueness, profit potential, internal consistency, completeness or comprehensiveness imitability,

robustness (ability to withstand changes in assumptions about underlying internal or external conditions), adaptability, and sustainability. Numerous criteria exist for evaluating the individual model components, ranging from standard quantitative indicators (size and growth rate of the firm's target market, measures of operational efficiency) to highly qualitative indicators (originality of the value proposition, strength of partner relationships). Afuah and Tucci (2001) distinguish measures of profit, profit predictors and component attributes.

TOWARDS AN INTEGRATIVE FRAMEWORK

There is a need for a standard framework for teaching students how to design a business model. To be of value, such a framework should have certain qualities. Chief among these are the need for it to be reasonably simple, logical and measurable, while at the same time being comprehensive and operationally meaningful.

If the purpose is to model a viable business, then what is the essence of a viable business? For simplicity, let us assume that it is an entity that makes available a product or service to a customer in a manner that allows it to charge more than its expenses while distinguishing itself from others who sell the same thing, in the process generating an acceptable return on investment. Inputs are translated into outputs, and this is accomplished in a way that makes economic sense and is sustainable.

It would appear that, in seeking generalizability, most of the extant perspectives attempt to oversimplify a firm's business model. The challenge is to produce a framework that is applicable to firms in general, but that serves the needs of the individual entrepreneur and the unique combinations behind his/her venture that make it sustainable. Accordingly, a framework is proposed that consists of three levels, or sets of decisions, and these are termed the 'foundation', 'proprietary', and 'rules' levels. Further, at each level, six basic components are considered. Let us first consider the **foundation level**, where the basic components of the business model are specified.

At its essence, a well-formulated business model must address six key questions. These questions reflect commonalities among the various perspectives found in the literature (see Table 4). Specifically, the most consistently mentioned components of business models concern the value proposition, the customer, internal processes and competencies, and how the firm makes money. To these four, a competitive strategy element has been added, which captures the need to translate core competencies and the creation of value into differentiation within the marketplace. The inclusion of differentiation reflects an emphasis on competitive strategy by a number of researchers (e.g., Hamel, 2001). It also reflects the almost universal emphasis on resource combinations that are perceived to be unique relative to competitive offerings (e.g., Afuah and Tucci, 2001; Amit and Zott, 2001). Finally, a useable framework should apply to all types of ventures, ranging from lifestyle or managed growth ventures to high potential and speculative ventures. Different models are likely to accommodate different levels of growth, and shorter versus longer time horizons. Thus, the sixth decision area concerns the growth and time objectives of the entrepreneur. Let us examine each of these components in more detail.

1. How will the firm create value? This first question is concerned with the value offering of the firm. It includes the particular products or services being sold, the nature of the product/service mix, and the relative depth and breadth of this mix. In addition, the value proposition is defined by whether the firm provides access to the product or service, or sells the actual product or service by itself, or sells the product or service as part of a bundle or total system. Other issues include whether the firm makes the product or service, outsources product manufacture or service delivery, licenses others to make and sell, acquires the product and re-sells it, or acquires the product and then modifies and re-sells it. Finally, the value proposition is affected by whether the product or service is provided directly by the firm or through an intermediary.

2. For whom will the firm create value? This question focuses on the nature and scope of the market in which the firm will compete. Of importance is whether the firm will principally sell to consumers (b-to-c), businesses (b-to-b), or both, and where it falls in the value chain. When selling to businesses, the entrepreneur must further distinguish where in the value chain the firm's customers will be, such as upstream (mining, agriculture, basic manufacturing), downstream (final manufacturing, assembling), wholesaling, retailing, or some combination. The geographic scope of the market should also be specified, such as local, regional, national or international. Ventures also vary in the extent to which their success is driven by a focus on discrete transactions to a range of customers, or by ongoing relationships with particular accounts.

3. What is the firm's internal source of advantage? The term core competency is used to capture an internal capability or set of skills that enables the firm to provide a particular benefit to customers. Hence, Federal Express delivers a benefit of on-time delivery based on its competency at logistics management. While a firm might attempt to build operations around any number of competencies, sources of advantage can be organized into seven general areas. These include the firm's production/operating system, capabilities in technology development/innovation, selling/marketing expertise, information management/mining/packaging prowess, competence in financial management/arbitrage, mastery of supply chain management, and skills at managing networks and leveraging resources.

4. How will the firm differentiate itself? Depending on how they are applied, core competencies can enable the firm to differentiate itself, or produce something perceived to be unique in the marketplace. The challenge of differentiation is to identify salient points of difference that can be maintained over time. Given the ability of companies to quickly imitate one another, the entrepreneur seeks bases for differentiation that are more than cosmetic or transitory. Sustainable strategic positions tend to be designed around one of the following five bases of differentiation: operational excellence, product quality/selection/availability/features, innovation leadership, low cost, or intimate customer relationships/experiences.

5. How will the firm make money? A core element of the firm's business model is its economic model. The economic model provides a consistent vehicle for earning profits. It has four sub-components. The first of these is the firm's operating leverage, or the extent to which the underlying cost structure is dominated by fixed costs, or is driven more by variable costs. The second sub-component is volumes, and whether the firm is organized for high, medium or low volumes in terms of both the market opportunity and internal capacity. The third consideration is whether the firm will be able to charge high, medium or low margins. Finally, the economic model considers whether the revenue sources are fixed or flexible. An example of the former would be a company that sells ten items based on a fixed price list. Alternatively, a firm that sold a number of value-added services at varying prices depending on the customer segment and market conditions has more flexible revenue sources. This latter factor is the source of many of the creative revenue models found in dot.com businesses.

6. What are the entrepreneur's time, scope and size ambitions? The business model must also capture the entrepreneur's objectives and ambitions. As such, the entrepreneur views the business in terms of an investment model. Four such models can be used characterize most ventures: subsistence, income, growth, and speculative. With the subsistence model, the goal is to survive and meet basic financial obligations. When employing an income model, the entrepreneur invests to the point that the business is able to generate an ongoing healthy income stream for the principals. A growth model finds not only significant initial investment, but substantial reinvestment in an attempt to grow the value of the firm to the point that it eventually generates a major capital gain for the initial investors. The speculative model is employed where the entrepreneur's time frame is shorter, and the objective is typically to demonstrate the potential of the venture and then sell it.

-Table 1 about here-

These six components of the business model that are addressed at the foundation level, and the specific decision variables within each component, are summarized in Table 1. For three of these components, the entrepreneur or student must select one factor from a set. For the other three components, one factor must be selected from each set of factors making up a given sub-component.

IMPLICATIONS FOR THE ENTREPRENEURSHIP CLASSROOM

We have attempted to clarify a concept that would seem critical for entrepreneurial success, but one that is largely ignored both in entrepreneurship textbooks and academic research. As a pedagogical tool, the framework presented in this paper is relatively easy to teach and fairly simple to apply. Its application obviously becomes more complex as the student moves from the foundation level of the model to the proprietary and rules levels. Moreover, the framework can be used in entrepreneurship courses in a variety of creative ways. Some suggested examples of classroom assignments or activities that can be designed around the proposed framework include the following:

- Challenge students to develop original business ideas or concepts, present these to the class, and rate them. Next, have students develop business models for their concepts, and rate the models. Examine differences in the ratings given to the original business ideas compared to those for the business models. Discuss reasons why creative business ideas often do not result in highly successful businesses.
- Identify businesses that have failed and examine their business models. For those that had fundamentally flawed models, determine what was wrong and design an alternative model that might have worked.
- Have students develop a detailed scoring system (based on measurable criteria) for critiquing each of the six components of a business model. Have them apply the criteria to models developed by classmates. Use the discussion to demonstrate how the different components of the model vary in importance depending on the type of venture in question.
- Provide students with an example of a successful business model. Challenge them to explore the inter-relationships among the components of the model. Sample questions might include determining the ways in which the components are internally consistent, and identifying the types of synergies that are created in the way the components have been combined.
- Experiment with having students find examples of businesses that had strong business models but failed, and firms that had ill-defined or imprecise business models but succeeded. Explore the possible underlying reasons for both sets of outcomes.
- Require students to find a contemporary business that has fundamentally changed its business model; Have them identify the reasons for abandoning the old model, and determine their level of agreement with the types of changes made to the model.

Classroom activities such as these can serve a number of different learning objectives, and this is the ultimate value of the proposed framework. The framework provides a vehicle for translating a creative concept idea into a full-fledged business, as it gives the student a snapshot of exactly what the business will look like. Further, given the time constraints imposed by the typical semester-long course, identifying an original idea for a business and then developing a full-fledged, high quality business plan can be quite difficult. The business model framework represents a practical intermediate step. Thus, students might be challenged to simply create formal models for their business ideas, and to provide 7-10 page write-ups of

their business models. The framework also helps students appreciate the integrative and cross-functional nature of entrepreneurship, as the key is often not so much decisions made in any one area, but the way in which the decisions are combined. Finally, the proposed framework can be a valuable means for fostering students' critical thinking skills, especially when examining the business models of highly successful as well as failed entrepreneurial ventures.

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Table 1: The Core Components of a Business Model

<p>Component one: <u>How do we create value?</u> (select 1 from each set) <i>(factors related to the offering)</i></p> <ul style="list-style-type: none"> • offering: primarily products/primarily services/heavy mix • offering: standardized/some customization/high customization • offering: broad line/medium breadth/narrow line • offering: deep lines/medium depth/shallow lines • offering: access to product/ product itself/ product bundled with other firm's product/service • offering: internal manufacturing or service delivery/ outsourcing/ licensing/ reselling/ value added reselling • offering: direct distribution/indirect distribution (if indirect: single or multi-channel) 	
<p>Component two: <u>Who do we create value for?</u> (select 1 from each set) <i>(market factors)</i></p> <ul style="list-style-type: none"> • type of organization: b-to-b/b-to-c/ both/other • local/regional/national/international • where customer is in value chain: upstream supplier/ downstream supplier/ government/ institutional/ wholesaler/ retailer/ service provider/ final consumer • broad or general market/niche market • transactional/relational 	
<p>Component three: <u>What is our source of competence/advantage?</u> (select only 1) <i>(internal capability factors)</i></p> <ul style="list-style-type: none"> • production/operating systems • selling/marketing • information management/mining/info. packaging • technology/R&D/creative or innovative capability/intellectual • financial transactions/arbitrage • supply chain management • networking/resource leveraging 	
<p>Component four: <u>How do we differentiate ourselves?</u> (select only 1) <i>(competitive strategy factors)</i></p> <ul style="list-style-type: none"> • image of operational excellence/consistency/dependability • product or service quality/selection/features/availability • innovation leadership • low cost/efficiency • intimate customer relationship/experience 	
<p>Component five: <u>How do we make money?</u> (select 1 from each set) <i>(economic factors)</i></p> <ul style="list-style-type: none"> • pricing & revenue sources: fixed/mixed/flexible • operating leverage: high/med/low • volumes: high/med/low • margins: high/med/low 	
<p>Component six: <u>What are our time, scope and size ambitions?</u> (select 1) <i>(personal/investor factors)</i></p> <ul style="list-style-type: none"> • subsistence model • income model • growth model • speculative model 	