

# Business Model Value Creation, Value Capture, and Information Technologies

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## INTRODUCTION

Information technologies have transformed and will continue to transform global business landscape. Business models play a central role in this transformation by linking technologies with market opportunities. Scholarly understanding of this mechanism is limited. Richer insights into the relationship between business models and information technologies are needed to build a cumulative body of knowledge in this field. It is the intention of this article to provide a conceptual lens through which to understand how the interactions between information technologies and business models take place and shape today's business landscape. This article decomposes these interactions into the roles played by information technologies in three functional areas. These three include: 1) discovering customer value in terms of current and potential needs for accessing and processing information. 2) Creating customer value in terms of novel solutions (i.e. market offerings) for customers' current and potential needs, and 3) capturing it in terms of enticing customers to pay for the offerings and translating payments into profit.

It is posited that, the interplay between information technologies and business models goes beyond the currently dominant view of business models for e-commerce. It rather changes the way markets work and opens up new venues for developing new markets. Addressing this issue from the perspective of customer value, value creation, and value capture offers a theoretical ground upon which to build future research and reach consensus about how information technologies can lay the foundation of new markets and change the face of existing ones.

The remaining part of this article is organized as follows. First, a background to the interactions between business models and technologies will be presented. Then, the concept of business model and its conceptual

evolution will be discussed. This discussion includes value, value creation, and value capture. Next, the position of business model research in information science will be portrayed and finally some areas for future research will be illuminated.

## BACKGROUND

The concept of "business model" (BM) emerged at the dawn of information era and soon after became a key topic in the business and management literature. Emergence of this concept in its current discourse can be traced back to as early as the first half of the 2000s when "e-commerce" firms or "dotcoms" challenged the ways through which traditional brick-and-mortar firms used to create and capture customer value. This change provoked scholars to discover and explain the logic success of Internet-based firms. The result was the concept of 'business model' that was intended to capture e-commerce model of doing business or simply "e-business models." An e-business model was initially an application of information technologies for commercial purposes. In simple terms, e-business models represented the logic behind the operation of e-commerce firms.

The BM concept has, however, evolved into a key strategic term transcending e-commerce. The current conception of business model refers to the way a firm, in its general sense as an economic agent or unit of production creates and captures value for its customers. The term applies to all types of firms, small and large, e-commerce and traditional commerce, manufacturing and service operating in all areas of business.

Therefore, to understand a business we need to understand its business model. To understand a business model we need to understand value, value creation, value capture and the model that encapsulates these

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concepts and represents their associations in the form of a coherent configuration. I posit that Information technologies are instrumental in this context and cannot be separated from business models. In light of the above, it is the intention of this article to define and explain the concept of “business model” and its building blocks, dimensions and functions within the broader domain of information science and technology defined by Orlikowski and Gash (1992) as any computer-based information system applications. The thesis of this article is that, information technologies are strategic necessities (Clemons & Row, 1991), what gives them a unique advantage is the way they fit within business models or create new business models. As a result, contemplating applications of information technologies without considering their role in the business model of the firm is insufficient and to some extent misleading for understanding why, how and to what extent information technologies matter in today’s businesses.

## **BUSINESS MODEL OF THE FIRM**

Although the business model concept seems to be a classical and well-studied topic in management literature, recent reviews (George & Bock, 2011; Zott, Amit, & Massa, 2011) reveal that, there is still no consensus on the definition and description of the concept, and the existing definitions are either inconclusive or ambiguous.

The concept of business model first appeared in management research in 1957, in an accounting article written by Bellman and colleagues (Bellman, Clark, Malcolm, Craft, & Ricciardi, 1957; Osterwalder, Pigneur, & Tucci, 2005). It was used in the title of an academic paper in 1960 (Jones, 1960), as mentioned in the study by Nenonen and Storbacka (2010). However, the current terminology began to form at the dawn of information revolution in the late 1990s when technological deregulations in information technologies were related to the business models of e-commerce firms known as dotcoms (Horowitz, 1996; Viscio & Pasternack, 1996).

In its most basic sense, a model is a “device which attempts to provide a simplified representation of reality” (Leyshon, 1982, p. 58). A business is also a set of activities about ‘how’ to create customer and ‘what’ to do to keep customers happy (Drucker, 1994). Therefore, a business model is a simplified representation of how to create and maintain customers. Creating

and maintaining customers require firms to create and deliver value offerings different from those of competitors and entice customers to pay for them. This is carried out by having a right business model in place. Thus, a business model is not a financial or technical plan rather a conceptualization of the entire business (Teece, 2010). A right business model is instrumental in developing an enduring value differential in the minds of customers between one firm’s good or service and those of its rivals (Hitt et al., 2002).

Numerous authors have tried to re-conceptualize this conception of business model. For instance, Mitchell and Coles (2004) define business model as a combination of the ‘who’, ‘what’, ‘where’, ‘when’, ‘why’, ‘how’ and ‘how much’ an organization uses to provide its goods and services (value offerings) and develop resources to continue its efforts. Whereas Morris, Schindehutte, and Allen (2005) define business model as a concise representation of how an interrelated set of decision variables in the areas of venture strategy, architecture, and economics are addressed to create sustainable competitive advantage in defined markets. It is not the intention of this article to review and engage in a discussion on the definitions of business model. Najmaei (2013) offers a review of more than 20 definitions of the business model concept. Having said that, for the purpose of this article it suffices to say that business model of the firm defines its logic of the business. More precisely, as noted earlier, it determines how a firm develops and maintains customers.

Customers are in search of market offerings to satisfy their diverse needs. Creating such offerings and delivering them to the market place require various resources and capabilities and organizational systems or structures to coordinate activities in a cost-efficient fashion (George & Bock, 2011). Business models become necessary features of market economies where there is varying transaction costs stemming from various ways of using resources based on technologies available to the firm (Teece, 2010). A business model helps managers to link resources and capabilities of their firm to its current and potential customers using a combination of different technologies. Heterogeneities in customers’ needs and resources controlled by the firm and technologies deployed in an industry cause variations in the form and strategic adoption of business models in an industry. Therefore, in an industry business models enable managers find different ways to bring supply and demand together for competitive gains. The supply side refers to technologies, know-how,

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