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Business Model Innovation: Review of The Concept, Importance, Classifications, and Elements

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Abstract

The research trend on business models continues to surge, foreseeing them as the future blueprint to create and sustain competitive advantages, as well as the major driver that guides the strategic renovation efforts of businesses all over the world. In this research, we intensively review the literature on the business model regarding the concept emergence, theoretical background, definitions, importance, classifications, and the structure of the elements. Our interest is in gaining a better understanding of how to innovate a business model that can lead to create and sustain competitive advantages. Based on our findings, the literature to date lacks the systematic research patterns and classification approaches that guide the interested researchers in adding more contributions to what already exists. Also, the fuzziness and ambiguity of the concept have caused a lack of consensus on its definition. However, we define the business model as; "*the logical architecture that articulates and heedfully interrelates and regulates the internal and external business activities, whereby a firm can create, deliver and capture values that guarantee the development and sustainability of competitive advantages."* Furthermore, the existing predefined patterns and conceptual frameworks of the business models that we present in this study are forming a strong background on how primarily a business model can be designed and employed, yet, they cannot guarantee the feasibility and success of implementing them.

Keywords: Business Models, Business Model Innovation, Business Strategy, Business Framework, Competitive Advantages, Strategic Management, Internet Business Model, eBusiness, eMarket, Digital Economy.

1 Introduction

Over the past three decades, business strategy has been the key construct to create and sustain competitive advantages, more recently, business model foreseen as the future pursuit of doing so [1, 2]. Although some scholars distinguish the business model from strategy [3, 4, 5], others consider it as the blueprint of strategy [3], and yet, others consider the two as they are complementing each other [6]. Considering these different perspectives, however, every firm has a business model whether distinguished from strategy or not [7, 8, 9], but, a successful firm can have a substantially “good” business model regardless of being a newly developed venture or an already established player [10]. According to [1], three characteristics can make a “good” business model; (1) to be aligned with company goals, (2) to be self-reinforcing, and (3) to be robust [1, p. 102]. Another perspective [10] suggests that a “good” business is designed to answer the five questions of Peter Drucker [11]; (1) What is our mission? (2) Who is our customer? (3) What does the customer value? (4) What are our results? (5) What is our plan?

A good business model can successfully differentiate a firm from its rivals even if the products or services that the firm delivers are similar to those delivered by its rivals. For example, Apple wasn’t the first electronics firm that introduced a digital music player to market, yet, it became a well-known success story since the introduction of its iPod in the late of 2001 [12, 13]. This example and many others motivated scholars and practitioner to examine the differences and similarities in the business models of these firms, considering the differences, particularly in the revenue structure [14]. While the business model can be the key driver for firms to succeed, it can be the main reason to fail, especially startups. According to a study by CB Insights [15], a set of 20 most frequently cited factors for firms’ failure were identified based on analyzing 101+ startups (US based) failure post-mortems. The study revealed that 17% of these firms failed due to the lack of business model, particularly in solving the problems of the customers in a scalable structure. Furthermore, a notable 42% of these firms failed due to no market need [15]. In other words, building a solution without a problem or the solution does not solve the problem, particularly when no persuasive sufficient value proposition that strongly attracts the customers to buy and use the product or service. For instance, the firm fails to develop a product that leverages an emotional engagement with the customers [16]. Importantly, the value proposition based on various perspectives is the core element of the business models [3, 7, 17, 18, 12]. In other words, these 42% firms failed due to the failure of their business model. To this end, this research intends to answer the following research question;

How to innovate a business model that can lead to creating and sustaining competitive advantages?

To answer this question, we intensively review the literature on the business model regarding the concept emergence, theoretical background, definitions, importance, classifications, and elements structure. Our interest is in gaining a better understanding of these characteristics and therefore, employ the knowledge we gain for the current and future research.

2 Concept Emergence and Research Trend

The concept of the business model has no particular established theoretical base [19], or in other words, has no theory per se [20] in economics or business studies [7]. Its origins have the footprint back in the earlier writing of business's theories (e.g., the writings of Peter Drucker) [21, 22, 5]. According to [23], the concept derived from the ideas of business strategy and its related theoretical background. It also draws on Porter's concept of the value chain, as well as the resource-based theory, since it comprehends competitive advantage [23]. However, the term "business model" has been mentioned in published scientific papers since 1957 [24], but, its notion has acquired the significance during the last decade of the 20th century [25, 5]. The essential attention increased by both academia and practitioners starting in the mid of the 1990s [3, 26], concurrently with the advent of the internet [27, 28, 29]. This period witnessed a remarkable cultural change, and therefore, labeled as the period of "Digital Economy" [21, 30]. The increasing appearance of the business models in research caused by the shift from the traditional to the internet-based business activities [24]. Also, the new strategies in emerging markets have derived and attracted both scholars and practitioners for the sake of systematic studies of business models [31]. The growing interest has reached the climax of the 2010 Long Range Planning special issue [29, 32]. This issue has gathered scholars' answers to the questions regarding what a business model is and what are its purposes [32]. According to a systematic literature review that conducted by [33] using specific criteria; around (1,729) published articles found during 1975-2000, but, only (166) articles published during the period 1975-1994, while (1,563) were published during 1995-2000. Another focused study [28] to review the literature in more than (1300) academic and business journals published during 1975-2009 found (1,253) articles, but only (103) chosen as a final sample for the study since the remaining articles treated business model marginally or trivially. The study concluded that there was a significant overall increase in the literature on business models [28, 34].

On a similar pattern, we searched the Web of Science database using "business model" as a keyword in publications titles only and choose English as language, and 1993-2018 as a period of publications for the initial search criteria. The initial search revealed (2017) publications including (893) articles, (811) proceedings papers, (152) book chapters and (8) books. The remaining publications included (76) editorial materials, (31) meeting abstracts, (24) reviews, (13) book reviews, (9) news items. However, only (89) publications included peer-reviewed journal articles, books, and book chapters were selected to conduct this study as well as other publications that met our research questions and objectives. Generally, the initial conclusion based on this search indicates that the research trend on business models is persistent if not increasing. However, to synthesize on this conclusion, we searched "business model" on Google Trend during the period (01/01/2004) to (02/01/2018). The popularity of the term during this period depicted in figure 1. From this figure, it's obvious that there was a period (2004-2007) when the trend was decreasing. However, the trend started to take off again right after that and has maintained an increasing trend to date.

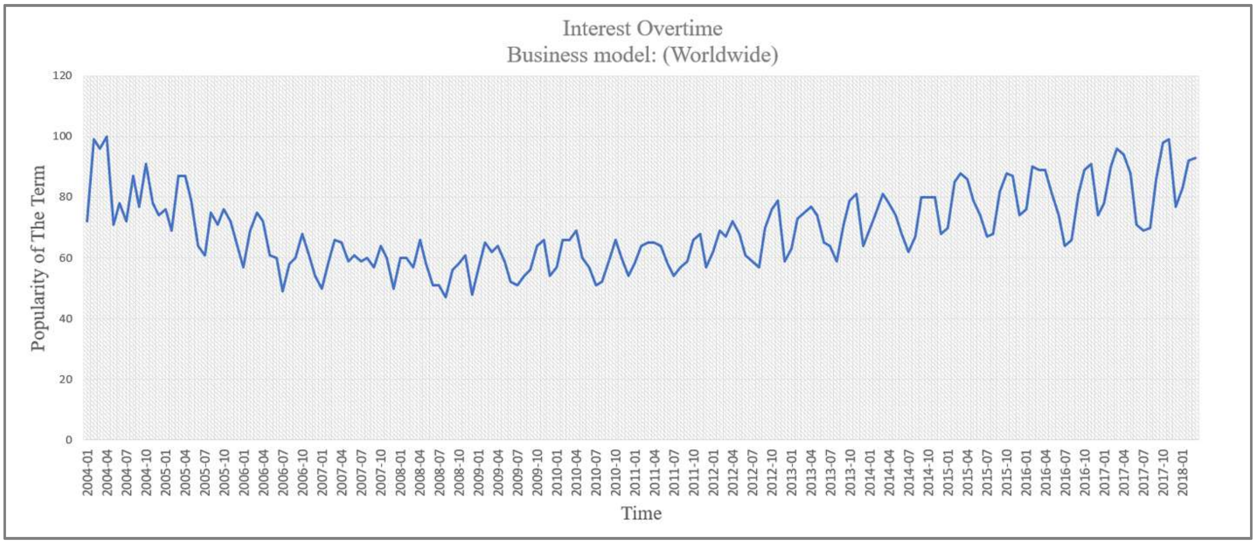

Figure 1- Business Model Trend - Source: Google Trend

3 Concept Definition

Defining the concept of the business model varies regarding its length and meaning [35], however, the concept to date has no accepted definition [25, 23, 21, 36, 37], and not yet consolidated [29]. In fact, the concept criticized for its fuzziness [38, 10], ambiguity and superficiality [39] as well as the lack of scholars consensus [27, 21, 40, 41]. Although no agreement on what a business model is [28, 42, 31, 43], yet, scholars agree that it must link the inside and outside elements of the firm, including the customer side, and explain how the value is created [7, 17]. Studies have shown that the concept examined in the background of different realms [44], and has been used in studies to classify firms [21] and as a factor to measure their performances [20, 37], as well as to articulate their strategies [37].

In the early stages of the research on the business model, the concept was crucial to understand the "e-businesses" [28, 17, 45] and to commercialize innovation and technology [43]. Most of the earlier research focused in the domain of the information system (IS), eCommerce, and eMarket [44, 46], startups, and high-tech companies [3]. The concept then increasingly became popular within IS, management, and the literature on strategy [39]. Nonetheless, not all of the business model innovations based on IS, since new business models have been innovated to meet the trend of the globalization and free economy, which in fact, increased the interest in this area [31]. The business model does not provide an integral characterization of everything that the firm does, including technology. That is because the business model is something general that provides more than just a description to what is happening in a firm in a context of providing an outline of the cause and effect relationships [47]. Furthermore, the existing concept(s) do not sufficiently support management in designing their firms business models [38, 48]. Therefore, to better understand the definition of the concept, a reflection on its semantics would express the meaning adequately. According to [4], the concept of the business model combines two terms; business, and model. A business according to WordNet 2.0 dictionary, is; *"the activity of providing goods and services involving financial, commercial and industrial aspects"* while a model is; *"a simplified description and representation of a complex entity or process"* [4, p. 2]. By combining these two concepts into one, a distinctive definition developed to provide an abstract meaning of what a business model is. A business model then is *"a conceptual tool containing a set of objects, concepts and their relationships with the objective to express the business logic of a specific firm"* [4, p. 3]. However, Timmers [49] was one of the first authors who defined the concept in 1998 (see table 1 below). Later, some researchers have developed different definitions to explain the core and purposes of a business model [21], while some others have tried to address the problem of different definitions by categorizing classes or themes that reflect the various origins or meanings of the concept.

According to a comprehensive review of the literature [28]; more than one-third of (103) selected and reviewed articles published in academic journals had not defined the concept at all, while less than half of these articles provided distinctive definitions, and the remaining had only cited the definitions of other researchers. Moreover, a most recent and up to date literature review on business model definition [29] has collected and reviewed definitions in chronological order for over the last 15 years, including (156) papers in academic journals. Considering four systematic reviews, the researchers identified four categories for definitions; (1) conceptual abstraction (i.e., strategic, narrative, process-based, and cognitive conceptual abstractions), (2) architecture (i.e., structure, system, network), (3) the content of the components (i.e., strategic activities and managerial decisions, resources, networks and relationships, and value), (4) the dynamic approaches (i.e. strategic management and organizational studies) [29, p. 25]. Importantly, there are different terms that the business model referred to when defined [28]. Table 1 below lists different definitions based on different terms that are relevant to the perspectives of each author. For more definitions, see [29].

Table 1- Different Definitions of Business Model Based on Different Terms

As a Term	As a Definition
Statement	"A statement of how a firm will make money and sustain its profit stream over time" [50, p. 290].
Architecture	"An architecture of the product, service, and information flows, including a description of the various business actors and their roles" [49, p. 4].
	"The architecture of a firm and its network of partners for creating, marketing and delivering value and relationship capital to one or several segments of customers in order to generate profitable and sustainable revenue streams" [51, p. 7].

Description	"A description of the potential benefits for the various business actors; a *description* of the sources of revenues" [49, p. 4].
	"A description of the rules and relationships among a firm's consumers, customers, allies, and suppliers that identifies the major flaws of a product, information, and money, and the major benefits to participants" [52].
	"A description of the value a company offers to one or several segments of customers and the architecture of the firm and its network of partners for creating, marketing and delivering this value and relationship capital, in order to generate profitable and sustainable revenue streams" [3, p. 15].
Representation	"A concise representation of how an interrelated set of decision variables in the areas of venture strategy, architecture, and economics are addressed to create a sustainable competitive advantage in defined markets" [23, p. 727].
	"A representation of a firm's underlying core logic and strategic choices for creating and capturing value within a value network" [25, p. 202].
	"A representation of the value logic of an organization in terms of how it creates and captures customer value" [21, p. 85].
Conceptual Tool	"A conceptual tool that contains a set of elements and their relationships and allows expressing a company's logic of earning money" [3, p. 15].
	"A conceptual tool containing a set of objects, concepts and their relationships with the objective to express the business logic of a specific firm. Therefore, we must consider which concepts and relationships allow a simplified description and representation of what value is provided to customers, how this is done and with which financial consequences" [53, p. 3].
Stories	"Business models are, at heart, stories - stories that explain how enterprises work. A good business model answers Peter Drucker's age-old questions: Who is the customer? And what does the customer value? It also answers the fundamental questions every manager must ask: How do we make money in this business? What is the underlying economic logic that explains how we can deliver value to customers at an appropriate cost?" [10, p. 4].
Pattern	"A pattern of organizing exchanges and allocating various costs and revenue streams so that the production and exchange of goods or services become viable, in the sense of being self-sustainable on the basis of the income it generates" [54, p. 82].
Set	"A set of capabilities that is configured to enable value creation consistent with either economic or social strategic objectives" [55, p. 53].
	"A set of which activities a firm performs, how it performs them, and when it performs them as it uses its resources to perform activities, given its industry, to create superior customer value (low-cost or differentiated products) and put itself in a position to appropriate the value" [56, p. 9].
Content, Structure, Governance	"A business depicts the design of transaction content, structure, and governance so as to create value through the exploitation of business opportunities depicts the content, structure, and governance of transactions designed so as to create value through the exploitation of business opportunities" [17, p. 493].
Method	"The method by which a firm builds and uses its resources to offer its customers better value than its competitors and to make money doing so" [57, p. 4].
Framework Set	"It's a framework for making money. It is the *set* of activities which a firm performs, how it performs them, and when it performs them so as to offer its customers benefits they want and to earn a profit" [56].

Template	"A template that depicts the way the firm conducts its business. It is crafted by a focal firm's managers in order to best meet the perceived needs of its customers. To fully address the market opportunity, the focal firm's business model often spans across the firm and its industry boundaries [58, p. 404].
	"A structural template of how a focal firm transacts with customers, partners, and vendors. It captures the pattern of the firm's boundary-spanning connections with factor and product markets" [59, p. 3].
Path	"A path to a company probability, an integrated application to of diverse concepts to ensure the business objectives are met" [60, p. 69].
Blueprint	"A blueprint of four interrelated components or domains: service, technology, organization and finance domain" [61, p. 1].
	"A blueprint for how a network of organizations co-operates in creating and capturing value from new services or products" [61, p. 2].
Bundle	"Is a bundle of specific activities—an activity system—conducted to satisfy the perceived needs of the market, along with the specification of which parties (a company or its partners) conduct which activities, and how these activities are linked to each other" [62, p. 42].
Logic	"A heuristic logic that connects technical potential with the realization of economic value" [18, p. 529].
	"The logic, the data and other evidence that support a value proposition for the customer, and a viable structure of revenues and costs for the enterprise delivering that value" [7, p. 173].

4 Business Model Importance

The difference between the business strategy and business model is that the first is concerned with designing and executing the business plans, while the other is more concerned with how the firm works as a system [53]. Nonetheless, a significant research stream looks at the business model as the construct that defines the strategy [63, 28] and executes it [5, 25]. The importance of business model perceived in the fact that it is guiding the efforts of the strategic reformation of businesses all over the globe [31]. According to [64], this importance increased due to the *"increasing number of opportunities for business model configurations enabled by technological progress, new customer preferences, and deregulation"* [64, p. 464]. The business model is essential due to the features of market economies, where there are consumer choices, transaction costs, heterogeneity amongst consumers and producers, competition [7], and dynamic conditions of the markets [38]. The consideration of the business model importance ensures the creation of the value, but it doesn't help managers to capture that value [10], unless it is designed carefully [17]. The business model according to [7] is what translates the managers' anticipations. While the literature lacks the basic understanding of the business model purposes [7, 53], some scholars (e.g. [18, 65]) view the purposes in acknowledging and understanding the core logic of the business. Furthermore, the purposes perceived in solving the problem that firms often confront with regarding what to sell and how to sell it [10, 66]. The success of firms acknowledged as being highly dependent on the management capabilities in designing and communicating the business model and its objectives [10, 12]. A good performance of the business model increases the firm's potentials to outperform its rivals [2, 17, 67], particularly when the business model considered as the source of the value creation [59, 17]. According to a study on the role of the business model in capturing value from innovation, the importance of the business model found in achieving various functions [18, p. 535][1].

In another study on the practice of business model and its implications in entrepreneurship research [19], six broad themes identified and discussed based on reviewing the literature to synthesize on these themes that emerged within the lexicon of organizational theory. The study reveals that the significance of the business model reflected on various factors as well. These factors included; organizational design, the resource-based view of the firm, narrative and sensemaking, the nature of innovation, the nature of the opportunity, and the transactive structures. Furthermore, in a study on why the business model matters, Magretta (2002) urges that; *"Business modeling is the managerial equivalent of the scientific method–you start with a hypothesis, which you then test in action and revise when necessary"* [10, p. 5]. There are many examples to study, examine and to better understand the importance of the business models and how they achieve remarkable changes in the history of firms. In this regard, Apple is one of these prominent examples that explains how firms can succeed when transforming the business model. In figure 2, which is graphically comparing Apple's revenue and net income before and after the business model change that Apple made, particularly after the introduction of the iTunes/iPod in the late of 2001. The figure demonstrates the increasing upward in both net income and revenue after 11 years (1990-2001) of a fluctuating financial performance around a certain level. Taking into the consideration that Apple was not the first innovators that introduced the digital music player to the market [5, 13]. However, it was the first electronics firm that demonstrated music distribution

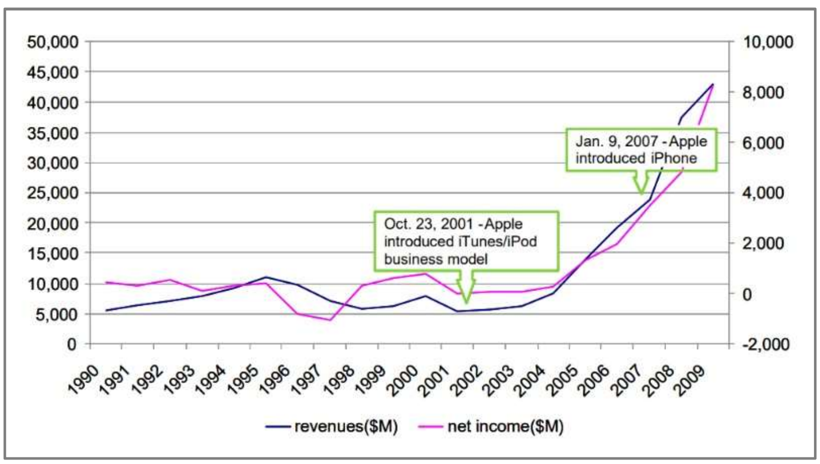

Figure 2 - Revenue and Net Income of Apple 1990-2009 – Source *[13]*

[1] The functions that the business model found to achieve are; (1) Articulating the value proposition, (2) Identifying the market segment and the revenue mechanism, (3) Defining the structure of the value chain, (4) Estimating the cost structure and profit potential, (5) Describing the position of the firm within the value network linking suppliers, customers, complementors, and competitors, (6) Formulating the competitive strategy by which the innovating firm will gain and hold advantage over rivals.

as an activity that linked to the development of the iPod hardware and software, by which it was becoming the first firm to offer new and delightful service to its customers [13].

5 Business Model Classifications

Classification is an essential move to understand an area of research. However, there is no consensus among researchers regarding proper method(s) and criteria to classify objects and define the objectives that the intended classification can achieve [37]. There are many approaches to the classification process, yet each classification has different goals and different pros and cons regarding knowledge representation and discovery [68]. Since business models considered as inanimate objects [37], classifying them can be achieved using one of the two widely known theories of classification; (1) essentialism and (2) empiricism. Based on the Oxford dictionary, essentialism defined as;" *A belief that things have a set of characteristics which make them what they are, and that the task of science and philosophy is their discovery and expression; the doctrine that essence is before existence."* On the other hand, empiricism defined as; *"The theory that all knowledge is based on experience derived from the senses."* Furthermore, the purpose of the classification specifies the appropriateness of each theory [37]. Taking into the consideration that classifying objects based on the essentialism theory is called typology, whereas classification based on the empiricism theory is called taxonomy.

5.1 Taxonomies and Typologies

The literature on classifying business model lacks a methodical approach to the classification process [37], yet, business model classifications are either in the form of taxonomies (i.e., lists of existing business activities) or traditional typologies, (i.e., common types of business models) [37, 69]. Taxonomies and typologies, in fact, created confusion since the terms typology and taxonomy are often used interchangeably and thus overlapped [70]. The literature on classifying business models (both typologies and taxonomies) is scarce and less consistent than the literature on classifying other fields of management [70]. It often lacks either empirical or theoretical basis [71], and therefore, researchers who endeavored to study and compare different classification blueprints encounter ambiguity and misunderstanding [37]. Indeed, developing typologies or taxonomies can be a highly complex and challenging process [70]. However, the initial classifications of the business models were traditional typologies or in other words, defining each type based on using explicit criteria for classification, where the results were generic types of business models [37, 69]. This approach differentiates classifications based on theoretical typologies, which built on prior theories such as; economics, strategy, and entrepreneurship [37]. Nonetheless, most of the efforts to classify business models have been taxonomic, which evolved by observing typically of a single industry [47]. Few exceptions to these efforts precisely and completely dealt with all the dimensions of the business model

[45, 72]. As cited before, the use of business models, in general, is to describe (classify) different types of businesses [20, 37] (e.g., McDonald's business model or the franchising model) [42]. Although examining the foundation of classifying business models has approved the existence of many specific classifications, yet, there are no general models [37]. The literature shows that the academic research on the business model conducted in the context of "eBusiness" [28, 39, 49]. That is, to research the methods of making the business is running information technology IT [14], or in other words; *"doing business electronically"* [28, p. 1023]. One suggestion for distinguishing different types of business models is to define them based on two fundamental dimensions; "*what types of rights are being sold"* and "*what type of assets are involved (i.e., physical, financial, intangible, and human)"* [14, p. 7]. Another suggestion is to define alternate two dimensions; *"the degree of innovation and the extent of integration of functions"* [49, p. 7] or *"the economic control,"* and *"value integration."* [73].

It is noted that building a framework to classify business models achieved by two approaches [74]. The first approach considered viewing the concept as a part of the business strategy and linked to technology. In other words, considering a novel and efficient business model when a new technology is emerged [67, 75] and seeking to achieve outstanding impacts (i.e., competitive advantages) [63]. The second approach is viewing the concept as separated from strategy and technology [7, 69]. The diversity of different business models shows the inadequacy of a unique classification scheme [76]. Additionally, the diversity of the classification is noted to be a result of meeting specific and different needs of each researcher as they remarkably differ in regards of the objective(s) and the scientific accuracy used in their research [37]. For example; business models have been classified into four types [77], five types [73], seven types [78], eight types [52], nine types [79], eleven types [49], and fourteen types [80]. Table 2 below is a result of an extensive literature review [81] that makes an overview of the characteristics of typologies and taxonomies in the literature of business models. It is too difficult to work on such research since most researchers do not provide the search terms taxonomy or typology as the classification often used as a tool to explain something different (e.g., how strategic orientation differs among different business models) [70]. In classifying business models, researchers might take several iterations of trial and error to frame out the proper mix of the considerable and related classification [70].

Table 2- An overview of Business Model Taxonomies and Typologies - Adopted from *[81]*

Industry	Database	Classification Criteria	Categories (Types)	Ref.
Biotechnology	Empirical Quantitative	▪ Cluster analysis of; o Age o Size o The degree of the newness of the biotechnology used o Level of R&D integration ▪ level of industrialization	▪ Service companies ▪ Small research companies (NBFs) ▪ Traditional integrated firms ▪ Industrialized Integrated firms	[82]

Biotechnology	Empirical Qualitative	▪ Integration in the value chain	▪ Vertical (Fully Integrated Pharmaceutical Company ▪ Hybrid ▪ Product ▪ Platform	[83]
Biotechnology	Empirical Quantitative	▪ Types of companies based on their activities ▪ Type of biotechnology	▪ Types of companies based on activities o New Biotechnology Firms o Integrated o Production ▪ Type of biotechnology o Traditional o New o New and traditional	[84]
Biotechnology	Conceptual	▪ Unknown	▪ Therapeutics firms ▪ Platform firms	[85]
Biotechnology	Conceptual	▪ Profile of offering	▪ Hybrid ▪ Service/Platform ▪ Product	[86]
E-Commerce	Conceptual	▪ Value proposition ▪ Proceeds	▪ Content ▪ Commerce ▪ Context ▪ Connection	[45]
E-Commerce	Conceptual	▪ Degree of innovation ▪ Degree of integration	▪ E-Shop ▪ E-Procurement ▪ E-Malls ▪ E-Auctions ▪ Virtual communities ▪ Collaborations platforms ▪ Third-party marketplaces ▪ Value-chain integrators ▪ Value-chain service provider ▪ Information brokerage ▪ Trust services	[49]
E-Commerce	Empirical	▪ Number of buyers ▪ Number of sellers ▪ Type of sellers ▪ Nature of the product ▪ Frequency of offering ▪ Price mechanism	▪ 40 categories without specific names	[87]
E-Commerce	Conceptual	▪ Unknown	▪ Transplanted real-world model o The mail-order o The advertising-based o The subscription o The free trial o The direct marketing o The real estate o Incentive scheme o Business to Business o Combinations of the above models ▪ Native Internet business models o The library o The freeware o The information barters o Digital products and delivery	[80]

			○ The access provisions ○ Website hosting	
E-Business	Empirical Qualitative	▪ Source of value creation	▪ Efficiency-centered ▪ Novelty-centered ▪ Lock-in-centered ▪ Complementary-centered	[17]
Automotive E-Commerce	Conceptual	▪ Resources ▪ Sales ▪ Profits ▪ Capital	▪ Strategic Finance ▪ Strategic response ▪ Strategic enterprise ▪ Strategic learning ▪ Strategic firm ▪ Strategic innovation	[88]
Open Source Software	Empirical Quantitative	▪ The full profile of offering (continuum between product and services) ▪ the relative importance of OS versus proprietary software (Degree of openness to Open Software)	▪ More Open Source Oriented (MOSS) ▪ Less Open Source Oriented (LOSS)	[89]
Open Source Software	Conceptual	▪ The openness of base software ▪ The openness of software extensions	▪ Open source ▪ Open core ▪ Open edge ▪ Proprietary	[90]
Open Source Software	Conceptual	▪ Unknown (referring to a working paper)	▪ Support ▪ Subscription ▪ Professional Services/consulting ▪ Proprietary Extension ▪ Dual License ▪ Device ▪ Community Source	[22]
Cross-industry	Conceptual	▪ What rights are being sold? • Creator • Distributor • Landlord • Broker ▪ What type of asset is involved? ○ Financial ○ Physical ○ Intangible ○ Human	▪ Manufacturer ▪ Wholesaler/ retailer ▪ Financial landlord ▪ Physical landlord ▪ Intellectual landlord ▪ Contractor ▪ Financial broker	[14]
Cross-industry	Conceptual	▪ Profit-making activity ▪ Relative position on the Price/value continuum	33 business models scheme in 9 categories ▪ Price model ▪ Convenience model ▪ Commodity-plus models ▪ Experience models ▪ Channel model ▪ Intermediary models ▪ Trust model ▪ Innovation model	[91]
Cross-industry	Empirical Qualitative	▪ Source of new business model innovation	▪ Model innovation ▪ Enterprise model innovation ▪ Revenue model innovation	[92]

Cross-industry	Conceptual	▪ Depth of investment made to support the business model ▪ Openness of the business model	▪ Undifferentiated ▪ Differentiated ▪ Segmented ▪ Externally aware ▪ Integrated ▪ Adaptive	[93]
Cross-industry	Conceptual	▪ Organizational structure (3 items) ▪ Degree of diversification (1 item) ▪ Management of the value chain activities (1 item)	▪ Multidivisional ▪ Integrated ▪ Hybrid ▪ Network-based	[94]
Ad-based Content Models (Internet, TV, Newspaper)	Conceptual	▪ Ad-revenue possibilities	▪ Subscription-based ▪ Ad-sponsored ▪ Mixed ▪ Dual	[95]

However, one of the best-known examples of classification structure of the e-business (Internet) models is the classification scheme by Timmers (1998). As shown in figure 3, Timmers [49] differentiates between eleven common models and classifies them based on their degree of innovation (ranges from low to high) and the degree of practical or functional integration (range from single function to multiple functions) [3]. The eleven models proposed by this structure considered and used as predefined patterns of eBusiness models. For more information and description of each model in the above classification structure (see [49, pp. 5-6]).

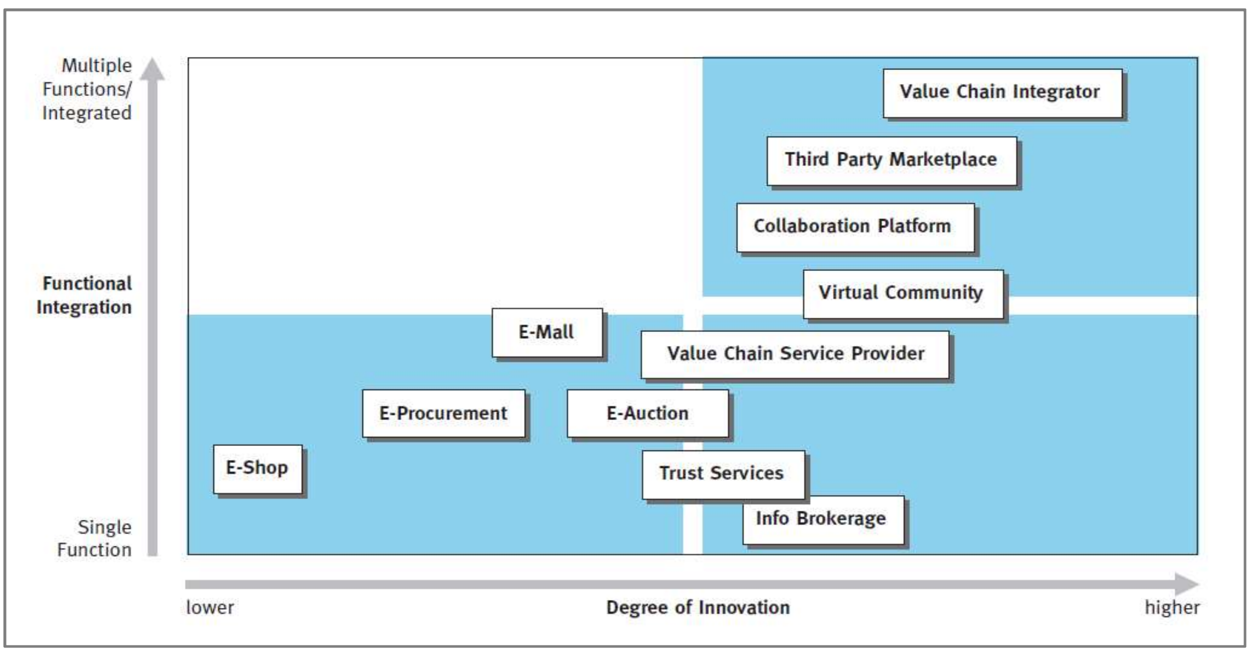

Figure 3 - Classification of Internet Business Models – Source *[49]*

Furthermore, figure 4 below is a morphological business model classification system (taxonomy). This classification scheme proposed by King (2015) arguing that every business or business model has one of the three business model shapes *"pipe, valley, or diamond."* [96]. Based on this classification, there are two types of businesses. First; linear – Pipe – One side market business model, (i.e., one market, one customer segment, one value creator, and economies of scale). However, the other type is a non-linear platform. This type is as well can be in one of two forms. First; two sides market -valley (i.e., two markets, two customer segments, one/two/ value creators, and network effects; API). Second, a multi-sided market -diamond (i.e., multi-markets, multi-customer segments, one/two/multi-value creators, and network effects; API). Finally, Lambert (2015) proposed a method based on the literature to design classification schemes. This method consists of six decision steps that develop a classification structure that is appropriate for the intended purpose [37]. For more information about this method, (see [37, p. 55]).

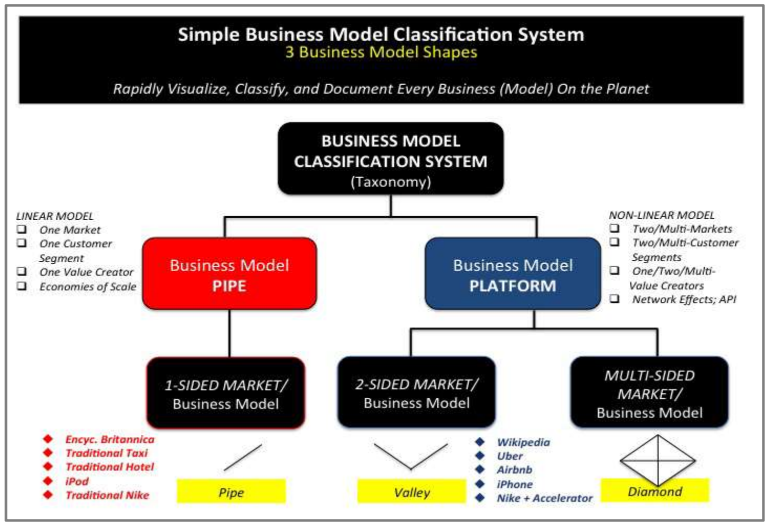

Figure 4 - Classification system (taxonomy)- Source *[96]*

5.2 *Predefined Patterns (Archetypes)*

Weill et al. (2005) proposed a structure that classifies business models into 16 detailed archetypes that can be used (at least in principle) with each of these different types of assets [14]. This archetype structure built based on the two dimensions discussed previously; the types of the rights to be sold, and the type of assets that are involved. In one hand, the types of the rights to be sold are the basis of business models archetypes (i.e., creator, distributor, landlord, and broker). On the other hand, the assets classified into four types; (1) Physical (e.g., houses, computers as durable assets, while clothing, food as nondurable assets), (2) Financial (e.g., cash and stocks), (3) Intangible (e.g., patents, copyrights, trademarks), and (4) human (i.e., people's time and efforts). In Table 3 below, the 16 business model archetypes listed based on the discussed criteria. Taking into the consideration that some of these business model types, particularly human creator and human distributors are illegal in most places [14].

Table 3 -The Sixteen Detailed Business Model Archetypes – Source *[14]*

Basic Business Model Archetype	What Type of Asset is Involved?			
	Financial	Physical	Intangible	Human
Creator	Entrepreneur	Manufacturer	Inventor	Human Creator
Distributor	Financial Trader	Wholesaler/ Retailer	IP Trader	Human Distributor
Landlord	Financial Landlord	Physical Landlord	Intellectual Landlord	Contractor
Broker	Financial Broker	Physical Broker	IP Broker	HR Broker

Another well-recognized example can be the taxonomic classification scheme proposed by Osterwalder and Pigneur (2010). The scheme consists of different types (predefined patterns) of business models with similar characteristics, and arrangements building blocks, as well as similar styles or patterns [67]. These types defined as; unbundling, the long tail, multi-sided platforms, freemium and open. These types listed and described in table 4. This scheme classifies business models into some major classes, but not in hierarchical order [42]. It is acknowledged to be complex, but, very helpful to classify business models using the canvas and nine building blocks [67].

Table 4-Different Types (Predefined Patterns) of Business Models with Similar Characteristics - Source *[67]*

Pattern	**Description**	**Example(s)**
Unbundling	Fundamentally there are three different types of businesses; customer relationship businesses, product innovation businesses, and infrastructure businesses. Each type has different economic, competitive, and cultural requirements. Those three types may co-exist within a single corporation, but ideally, they are "unbundled" into separate entities to avoid conflicts or undesirable trade-offs.	The mobile telecom industry, and Private banking industry
The Long Tail	The concept of these business models is about selling less of more: They focus on offering a large number of niche products, each of which sells relatively infrequently. Aggregate sales of niche items can be as lucrative as the traditional model whereby a small number of bestsellers account for lost revenue. Long tail business models require low inventory costs and strong platforms to make niche content readily available to interested buyers".	Netflix, eBay, YouTube, Facebook, and Lulu.com

Multi-sided platforms	Multi-sided platforms bring together two or more distinct but interdependent groups of customers. Such platforms are of value to one group of customers only if the other groups of customers are also present. The platform creates value by facilitating interactions between different groups. A multi-sided platform grows in value to the extent that it attracts more users, a phenomenon known as the network effect.	Visa, Google, eBay, Microsoft Windows, Financial Times
Freemium	In the free business model, at least one substantial customer Segment can continuously benefit from a free-of-charge offer. Different patterns make the free offer possible. Non-paying customers are financed by another part of the business model or by another customer segment".	Metro (free paper), Flickr, Open Source, Skype, Google, Free Mobile Phones
Open	Open business models can be used by companies to create and capture value by systematically collaborating with outside partners. It may happen from the "outside-in" by exploiting external ideas within the firm, or from "inside-out" by providing external parties with ideas or assets lying idle within the firm.	P&G, GlaxoSmithKline, Innocentive

6 Business Model Elements

Although the structure of the compositional elements of the business model as well, has received some criticisms [21], yet, this structure is highly important since it is describing what a business model is made off. In fact, defining the elements of the business model is the first step to make it a tool for the business planning that helps managers to understand and specify the business logic of their firms [3]. The elements of the business model are referred to or labeled variously by various authors. For example, they are labeled as components [25], functions [18], dimensions [17], building blocks [67], boxes [97], and key questions [23]. However, the elements of the business models and its interrelations were ill-defined in the early literature [98], and there have been several proposals showed some overlaps in the key elements [6]. The literature proposes design elements such as design principles, configuration techniques, business rules, design choices, and assumptions [36, 49]. The elements of a business model identified by their definitions [39], and they range from revenue model and value proposition to organizational structure and arrangement of business relationships [91]. According to [10], developing a new business model is similar to writing a story, and since the new story is the variations of the old ones, similarly a new business model is the variations of the generic value chain that implicit all businesses. This chain consists of two parts; one part encompasses all the activities of the creation process (i.e., designing, manufacturing, etc.), while the other part includes all the activities related to the selling process of what has been created [10]. In this context and in order to tell a good story (i.e., to design a good business model), it is very important to understand how to establish a coherent and headful interrelationship between the elements of the business model [98]. It is important to take into the consideration that the use of the same (duplicate) business models in different environments regardless of the interrelationships nature of its elements may eventually lead to the undesired objective(s). A good example of this case would be the use (duplication) of the Disney's business model within the United States in the case of Disney within the European environment. This example reflects the misunderstanding of the interrelationships between the two parts; the value proposition and the market segment regarding the customers' wants and needs, as well as their behaviors in those different areas [10].

7 Business Model Frameworks

In this section, we will present some of the well-known and widely cited and used business model frameworks. We review these examples to understand the elements and how they linked or related to each other to create a business model. These examples presented in chronological order, but, for more overviews on business models' frameworks and their elements, see [21, 25, 28, 38].

7.1 Source of Value Creation in eBusinesses

The value creation in eBusinesses is the first framework developed by Amit and Zott in 2001 [17] based on exploring and understanding the theoretical foundations of the value creation in 59 American and European e-businesses and examining how these businesses create value. According to their observations and findings, Amit and Zott in (2001) urge that in e-businesses, a new value can be created by enabling transactions. Therefore, they developed a model of the sources of value creation. This framework suggests that the creation of the value in the e-business is depending on four interdependent dimensions; efficiency, complementarities lock-in, and novelty. Figure 5 aside is depicting this framework including the four dimensions and the value creation.

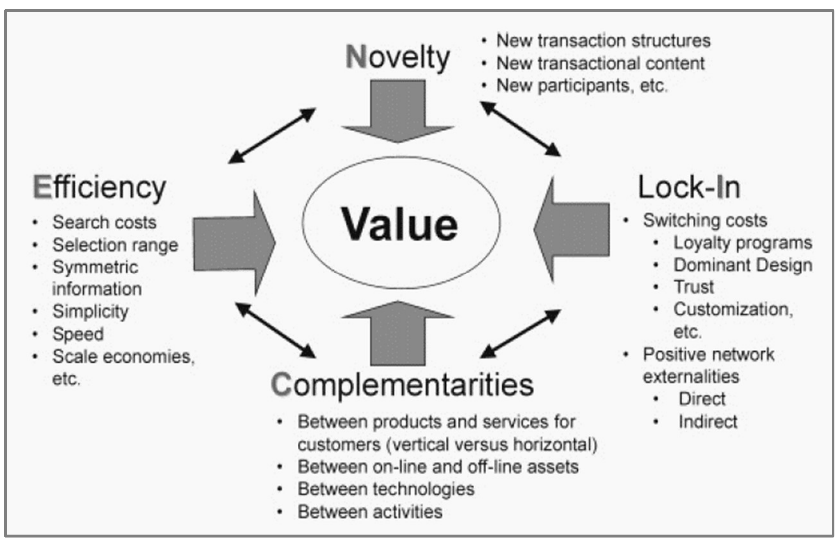

Figure 5 - Sources of value creation in e-business: Source *[17]*

Throughout this developed framework, the authors suggest that the business model of a firm considered as; *"the important locus of innovation and a central source of value creation for the organization, its suppliers,* *partners, and customers"* [17, p. 493]. From the architecture of this framework, the authors derive a unique definition of the business model (see table 1). Importantly, the four dimensions of this framework are reversible and intervenient, but not hierarchical participants in creating the value. Their findings propose that no single entrepreneurship or strategic management theory can entirely articulate the value creation potential of the eBusinesses.

7.2 Technology Market Mediation

The second example is another framework proposed by Chesbrough and Rosenbloom (2002). This framework has been designed to answer the question of scholars in the field of technology management for a long time; "*Why do successful companies often fail to capture value from new technology that they helped to create?"* [18, p. 529]. In this framework, the business model is the mediator between the technical inputs (e.g., feasibility, performance) and the economic outputs (e.g., value, price, profit). The medium of this framework (i.e., the business model) consists of six components as shown in figure 6; market, value proposition, value chain, cost and profit, value network, and competitive strategy. However, this framework doesn't draw or discuss the relationships among the six components other than just listing them. Also, it is important to recognize that the list of these components shows a priority that illustrates how a business model arranges the elements of the business and achieves the six purposes step by step. This proposed framework and the case of Xerox company in this research [18] illustrate the importance of designing the proper business model to a particular product, where Xerox, for instance, had to develop a new business model that fits with remolding the value proposition. In other words, mentioning the example of leasing expensive copy machines instead of selling them for the sake of fulfilling the needs of their customers as they would not be able to afford to buy new expensive ones. However, as the authors acknowledge the differences between business model and strategy (i.e., business model stresses value creation while strategy emphasizes value capture), this framework does not fully cover the strategy of the business [21].

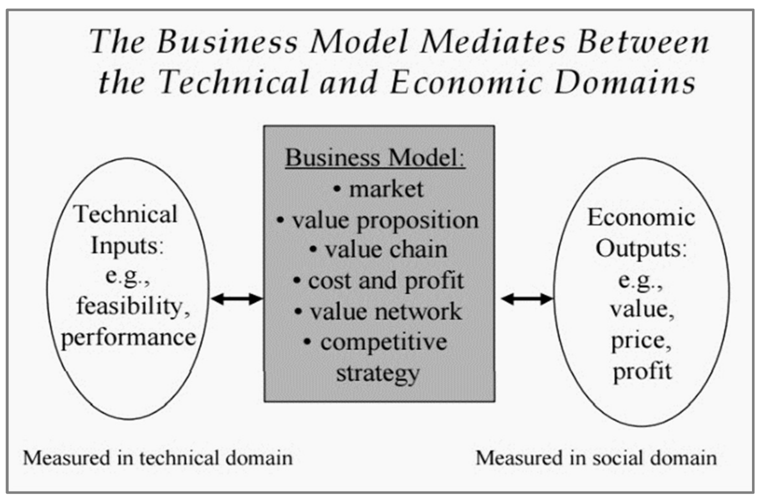

Figure 6 - Technology Market Meditation - Source *[18]*

7.3 Business Model Ontology

Osterwalder (2004) has outlined a generic business model framework (ontology) that any business could use to map out all of its parts [3]. Osterwalder urges that all parts of a business have to be optimized and that details in a business model make the difference. In this example, the author in his study refers to the business model components as "elements," "building blocks," "functions" or "attributes." The objective was to provide an ontology whereby the firm can describe its business model in detail. According to this framework, two steps required to design a business model. The first step is to identify four main areas (pillars); (1) product, (2) customer interface, (3) infrastructure management, and (4) financial aspects. The second step is to build a set of nine interrelated building blocks (components) that allow to conceive a business model and interrelate them to the previously identified pillars. These nine building blocks are; (1) value proposition, (2) target customer, (3) distribution channel, (4) relationship, (5) value configuration, (6) capability, (7) partnership, (8) cost structure and (9) revenue model. These nine building blocks and their interrelationships with the identified pillars are listed and described in table 5. Osterwalder describes the findings of his study as the first overview of the proposed generic framework (ontology) as shown in figure 7. The framework also shows the interrelationship between the elements of the business model. Taking into the consideration that this ontology has been built based on synthesizing the existing literature on the business model.

Table 5 - Nine Building Blocks by Osterwalder - Source: [9]

Pillar	Building Block	Description
Product	Value Proposition	A Value Proposition is an overall view of a company's bundle of products and services that are of value to the customer.
Customer Interface	Target Customer	The Target Customer is a segment of customers a company wants to offer them value.
	Distribution Channel	A Distribution Channel is a means of getting in touch with the customer.
	Relationship	The Relationship describes the kind of link a company establishes itself and the customer.
Infrastructure Management	Value Configuration	The Value Configuration describes the arrangement of activities and resources that are necessary to create value for the customer.
	Capability	A capability is the ability to execute a repeatable pattern of actions that are necessary to create value for the customer.

	Partnership	A Partnership is a voluntarily initiated cooperative agreement between two or more companies to create value for the customer.
Financial Aspects	Cost Structure	The Cost Structure is the representation in money of all the means employed in the business model.
	Revenue Model	The Revenue Model describes the way a company makes money through a variety of revenue flows.

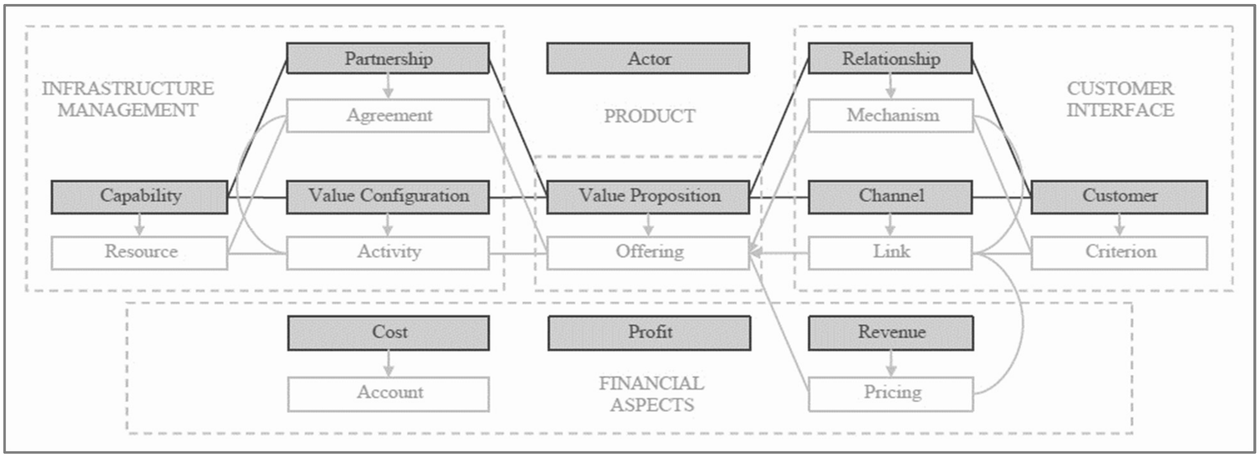

Figure 7 - The Business Model Framework (Ontology) - Source *[3]*

7.4 Business Model Affinity Diagram

Shafer et al. (2005) proposed a business model framework based on reviewing the literature [25]. The authors divided the components into four basic categories; (1) strategic choices, (2) creating value, (3) value network, and (4) capturing value. Each of these four basic components consists of several subcomponents as shown in figure 8. However, this framework neither illustrates the interrelationships between the four components (categories) nor between the subcomponents in each of these four proposed categories. In other words, the framework only lists the components based on their class of grouping, without explaining which one comes first, and which one comes last. Furthermore, this study discusses the

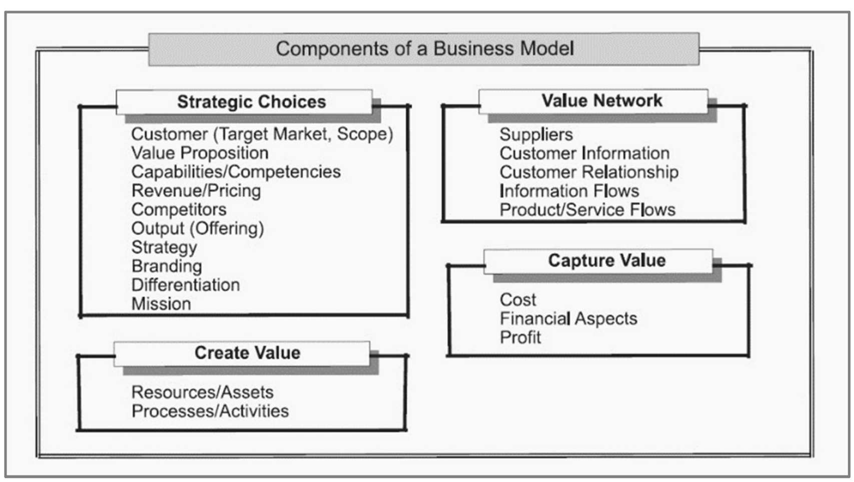

Figure 8 - Components of Business Model Affinity Diagram – Source *[25]*

situation of offering two different products (with different value propositions) using the same business model. The example of shifting the strategy of Sun Microsystems company by offering new low-end product along with the old high-end product using the same business model has confused the system of their business and eventually ruined their business model.

7.5 Entrepreneur's business model

Morris et al. (2005) developed a framework based on conceptual and theoretical roots and approached the business model based on an entrepreneurship perspective. The authors argue that a well-developed model must address six key questions (components) as shown in table 6. These questions were formulated based on shared aspects of different perspectives found in the literature. A useful framework based on the authors perspective should be *"reasonably simple, logical, measurable, comprehensive, and operationally meaningful"* [23, p. 729]. Therefore, this framework proposed to consist of three levels of the decision making; foundation, proprietary and rules, while within each level, there are six basic decision criteria (i.e., six questions based on six components). The need for three levels of the decision making was justified to reflect various managerial objectives of the model. Furthermore, the framework includes financial aspects (i.e., operating leverage, volumes, and margins) as well as competitive strategy as an element. Moreover, one of the element addresses the personal factors of the entrepreneur or investor about their time, scope, and size ambitions. Therefore, the model also called the "investment model.". The authors discussed the importance of the internal and external fit concerning the six elements. While the internal fit (i.e., consistency and reinforcement between the components) required for a working model, a strong internal fit can weaken the adaptability and result in a poor external fit, particularly when the environment is turbulent. The authors noticed that the components interact with each other and that the investment model (component 6) effectively delimits decisions made in all other areas.

Table 6 - Six Questions That Underlie a Business Model, With Three Decision Levels – Source *[23]*

Component	**Question**	**Foundation**	**Proprietary**	**Rules**
Factors Related to The Offering	How do we create value?			
Market Factors	Who do we create value for?			
Internal Capability Factors	What is our source of competence?			
Competitive Strategy Factors	How do we competitively position ourselves?			

Economic Factors	How we make money?			
Personal/Investor Factors	What are our time, scope, and size ambitions?			

7.6 The Four-Box Model

Johnson et al. (2008) proposed a new framework that consists of four elements [12], which later called them the four-box model [40, 97]. This framework describes the core DNA of the firm and emphasizes that the basic construct underlying all successful businesses consists of four interdependent elements. Thes four elements represented by four boxes; (1) the customer value proposition (CVP), (2) the profit formula, (3) key processes, and (4) key resources [40]. This framework encompasses more operational details (i.e., rules, norms, and metrics) and financial aspects (i.e., target unit margin and resource velocity) aspects [21]. Figure 9 aside is a graphical representation of this framework, which illustrates the interrelationships of its elements (the four boxes) as an iterative network of the business activities. Each of the mentioned aspects of the four boxes above is listed and described in detail in table 7 below.

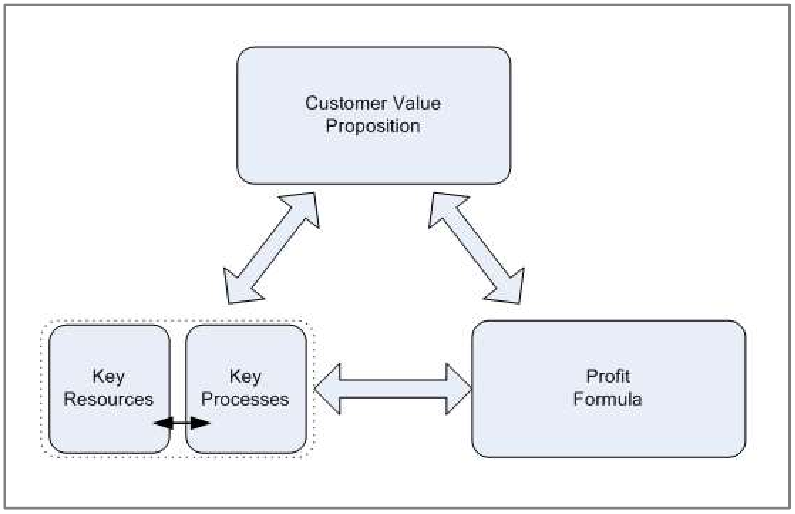

Figure 9 - The Four-Box Model – Source *[97]*

Table 7 – Four-Box Business Model Structure – Adopted from *[12, 97]*

Element (Box)	***Description***
Customer Value Proposition (CVP)	▪ Target Costumer: Specify who the customers of the company are; what are their wants, needs, desires, etc. ▪ Offering: What is fulfilling the need. This is defined not only by what is sold but also by how it's sold. ▪ Job to be done: To solve an important problem for the target customer.
Key Resources	▪ Needed to deliver the customer value proposition profitably. It may include; People, Technology (products), Equipment, Information, Channels, Partnerships (alliances), Funding, Brand

Key Processes	Includes business rules, behavioral norms, and success metrics, that make the profitable delivery of the CVP repeatable and scalable. It may include; ▪ Processes: Design, product development, sourcing, manufacturing, marketing, hiring and training, IT. ▪ Business rules and success metrics: Margin requirements for investment, credit terms, lead times, supplier terms. ▪ Behavioral norms: Opportunity size needed tor investment, approach to customers and channels.
Profit Formula	▪ Revenue Model: How much money can be made: Price X quantity. Quantity can be thought of regarding market share, purchase frequency, ancillary sales, etc. ▪ Cost Structure: Includes direct costs, overhead costs, and economies of scale ▪ Target Unit Margin: How much each transaction should net to cover overhead and achieve desired profit levels ▪ Resource Velocity: How quickly resources need to be used to support target volume. Includes lead times, throughput, inventory turns, asset utilization, etc.

7.7 Business Model Cycle

Another framework for business model components developed by Teece (2010) to illustrate the different components that are required to design a business model [7] as shown in figure 10. This framework is not an architecture of the components. However, it is rather a cycle of the required six elements (components) to design a business model. In this framework, the components should be designed step by step and in a manner to be interrelated to each other. The business model developed based on this framework is a tool that answers the basic question asked by business strategists; *"how does one build a sustainable competitive advantage and turn a supernormal profit?"* [7, p. 173]. Furthermore, the author argues that it is insufficient to design a successful business model to ensure the strategic and financial success of the firm, as long as the developed business model can easily imitated. The only sufficiently differentiated and hard to imitate business model can ensure competitive advantage. Therefore, to ensure a sufficiently differentiated business model design, multiple

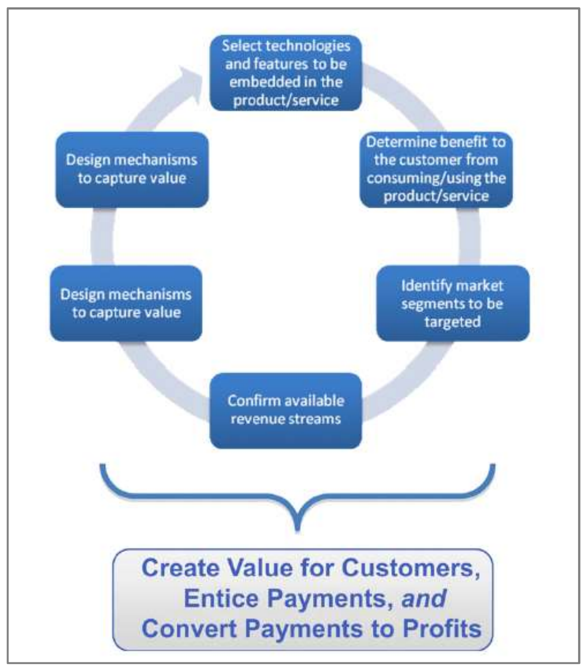

Figure 10 - Business Model Cycle - Source *[7]*

steps are required [7]. First, segment the market, second, create a value proposition for each segment, third, design and implement a mechanism to capture value for each segment, fourth, figure out and implement "isolating mechanism" to hinder or block imitation by competitors, and disintermediation by customers and supplier.

7.8 RCOV Framework

Inspired by a Penrosian view of the firm, Demil and Lecocq (2010) built the RCOV framework [99] considering the firm as a bundle of the resources (components), where all the interactions take place to promote growth and create new value propositions. The RCOV stands for; Resources, Competences, Organization and Value. The authors argue that there are two approaches to the use of the business model concept. First, a static approach when viewing the concept as a scheme that makes a coherent articulation of the core components. Second, a dynamic approach when viewing the concept as a tool to make the changes and innovation in a firm, and in the business model itself. The ROCV framework depicted in figure 11 aside. On the contrary of the other frameworks discussed before, the ROCV framework lists the proposed components and clearly illustrates the interrelationships between them. Importantly, the ongoing dynamics of the business model derived from the interactions between and within the core model components. From the framework, one can notice that the authors view the value proposition as it is the guidance for the volume and structure of the revenues, whereas, the firm is the guidance of the volume and structure of the costs. That is how a business creates a margin which makes feedback to the bundle of the resources. This framework has been illustrated with the case of the English football club Arsenal FC over the period (1999-2009) which found that sustainability of an organization is depending on forecasting and responding to sequences of change. Providing the title "dynamic consistency"' to this firm competence in creating and withstand its performance while changing its business model [99].

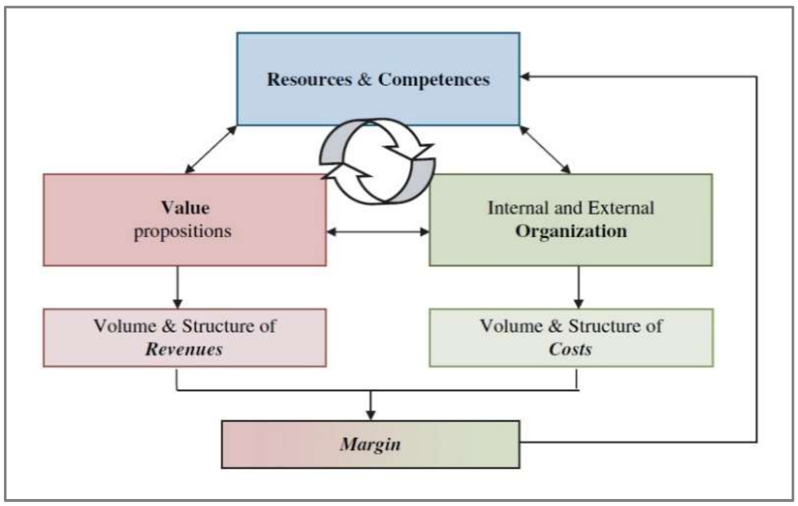

Figure 11 - RCOV Framework– Source *[99]*

7.9 Business Model Canvas

Osterwalder and Pigneur (2010) refined the core idea of Osterwalder's earlier framework (business model ontology) to another generic and a complete guiding structure to design a business model based on each firm's structure in creating, delivering and capturing value. This new framework, which they call "business model canvas" is consisting of nine components, or what they referred to as the nine building blocks. These blocks as discussed before (i.e., customer segments, value propositions, channels, customer relationships (such as self-service or personal assistance), revenue streams, resources, activities, partnerships, and costs structure explained and defined table 5. This framework is the most well-known and widely used framework [21] and considered as a great source to help practitioners in designing/redesigning the firms' business model since the method is structured to ensure the products by a step by step procedure. Figure 12 is a sketch of the business model canvas. However, the focus in this framework is on the structure of the business model system (i.e., the static structure) rather than the dynamic behavior of the system. Moreover, the business model canvas illustrates and confirms the interrelationship between some of the components rather than all of them. In short, the business model canvas is a graphical representation or a blueprint that abridges the understanding, and an approach to business model design and analysis.

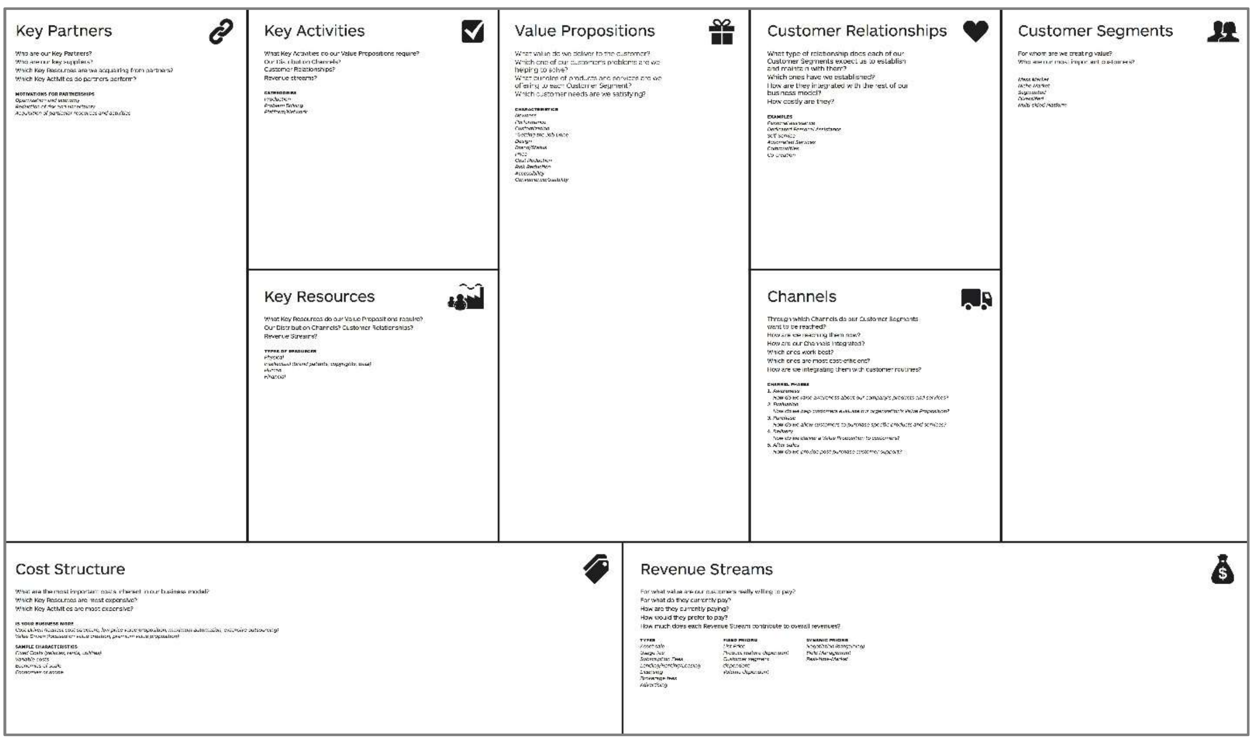

Figure 12 - Business Model Canvas – Source *[67]*

8 Conclusion

It is more than twenty years since the research on business model gained high attention from both business scholars and practitioners. Although a noteworthy body of the literature, yet, it lacks an inclusive theory, and therefore, the research on business model often looks at different established theoretical bases (e.g., business strategies, value chain, and the resource-based view). This research pattern, as well as the different research interests and accuracy, have caused a misleading and a lack of consensus around the meaning of the concept. Consequently, the concept defined variously regarding the general meaning and details, hence, there is no agreement on one definition. However, the presented various definitions (table 1) are similar in some points such as the objective of creating and delivering value, yet, they differ in how a firm can achieve that. Based on reviewing these definitions as well as the other characteristics of the business model, we define the business model as the logical architecture that articulates and heedfully interrelates and regulates the internal and external business activities, whereby a firm can create, deliver and capture values that guarantee the development and sustainability of competitive advantage.

Creating and sustaining competitive advantages is the main objectives of any firm regardless of being newly emerged or a well-known market leader. However, the business model is the roadmap that guides the firm to either succeeds or fails, reflected on its revenue structure. A firm can follow any of the presented predefined patterns and frameworks, yet, these patterns and frameworks cannot guarantee or lead to a plausible success. That is because firms are different regarding many aspects such as; the industrial type, size, scope, and range of activities, as well as the differences in their organizational structure and culture, the internal and external environments, and the rules and regulations. Furthermore, the elements of these predefined patterns and frameworks are often overlapped and lack the magnitude of impacting each other in the firm as a whole system. Still, these frameworks can be used as a principle base or generic architecture that help in designing business models based on each firm's different structure and circumstances.

Finally, the persistent research trend on the business model is expected to continue due to three factors. First, the deliberation of a significant research stream that treats the business model as the blueprint of the business strategy in creating and sustaining competitive advantages. Second, the shift from traditional to internet-based business activities, which transformed the nature of almost every business to have at least one or more channels to do their business electronically. Third, the remarkable changes a business model can achieve, particularly when designed carefully and substantially difficult to imitate.

9 Future Research

One of the important findings of this study is that the developed frameworks and generic business model that communicate and interrelate the elements and sub-elements are often developed conceptually, depending on the available literature review. Therefore, an opportunity for future research can be the development of an exploratory participatory modeling based on literature but validated by the use of experts and the application of quantitative methodology, particularly Fuzzy Cognitive Maps (FCMs). In this methodology, the interrelationships between the elements and sub-elements would be measured based on the impacts of each other and the simulation of various and plausible scenario planning.

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