

## ***BUSINESS MODELS AND INNOVATION OBSTACLES IN IRAN: A NEW FRAMEWORK***

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### **Abstracts**

Employing appropriate and up to date Business models in Organizations is so important due to the fact that it is the strategy which shows the main logic of a corporation in creating values in organizations. It is important to the extent that not employing an appropriate and up to date business model will prevent the organizations fulfilling their aims, even if they employ high technology or diverse resources. In fact, economical value of a technology is unknown until corporations employ an appropriate form of business model. It can be said that, those corporations employing more appropriate business models for a technology achieve more value than the corporations discovering that technology. A good business model is the basis of each successful organization, no difference the investment is new or it's an already established one. Due to the importance of this issue, in this study, we try to identify the main reasons for not being up to date or not developing business models in organizations. We do this by reflecting upon the results of credible and up to date researches in the area of different business models and obstacles or challenges facing different organizations. In line with what was said above, we employed library research, extracting updating obstacles in business models, questionnaire and field research for data collection process. Determining reliability and validity of the questionnaire, we distributed it among 198 corporations of management counseling in Tehran province. This research follows positivism paradigm and is practical, quantitative, and inductive. The results lead to the discovery of 35 cases of the main reasons of not being up to date and developed in using business models. As there was no basis for categorizing variables and formerly defined categories, in order to maximize the correlation between variables and factors, calculating the factorial ratio and determining the intended factors, we employed factorial design. Using this statistical technique, the variables were categorized in 4 kinds of obstacles: strategic, information, management, and system. At the end these are ranked using fuzzy Topsis technique. The results of ranking show the importance order of obstacles as follows: Informational factors, Systematic factors, managerial factors & strategic factors.

### **Research paper**

**Keywords:** Business models, Business models innovation, Obstacles, Challenges, Management Counseling corporations, Iran

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## **Introduction**

Sun Joe, the ancient Chinese military strategist says fighting style in every culture represents the attitude of people towards difficulties. Today's business world is a battlefield. Business in today's world is far greater war than conventional wars (Sun, 2011). According to researchers in the field of business, achieving a suitable competitive position for the company is possible only with the help of a suitable business model (Teece, 2010). Over the past ten years, the concept of business models has attracted a lot of attention both in the academic and media literature of the business. Over the last five years, six journals have published specific issues that are only dedicated to business models: Long Range planning in 2010, Harvard Business Review in 2011, International Journal of Innovation Management Strategic Organization in 2013, R & D Management in 2014 (Markides, 2015).

The economic value of a technology remains hidden as long as it is not commercialized through some methods such as business models. When the same technology is commercialized in two different ways, it will have two different returns. In fact, perhaps it is true that a medium technology that follows an excellent business model is more valuable than a great technology that has adopted a medium business model unless it finds a suitable model. On the other hand, companies that have used a proper BM for a technology model get more value than the company that originally discovered the technology (Chesbrough, 2010).

If we consider the BM as the original logic of a company and its strategic choices to create and capture value within a network, failure to identify a suitable business model will lead to the failure of the organization in achieving its goals (Lambert, 2008). On the other hand, a good business

model is the basis of any successful organization, whether a new investment or already established (Magretta, 2002). Therefore, if organizations do not have a proper BM, they cannot capture a significant portion of the market (Scott, 2012). The aim of this study is to identify and examine the barriers to innovation in BMs and then their ranking in Iranian Business Environment.

### **Theoretical Framework**

Business is a human activity in a competitive market context that is always characterized by the exchange of goods and services for money and refers to a set of individuals, decisions, resources, buildings, products, values, practices, and any other necessary elements for guiding and maintaining this specific activity of human. With this description, what do we mean by "business model (Raftari, M., & Amiri, 2014; Casadesus-Masanell & Heilbron, 2015). A company is a structure of power and authority, which is able to produce and trade and is responsible for establishing and receiving value from business activities. Authority structures are based sources of power source and are a source for legitimacy. Power structures are able to impose their authority on the structure that is their choice and they show no resistance. The business model of a company explains the details of the decisions that a company applies on the agents that work with it (Casadesus-Masanell & Heilbron, 2015).

Business model is an abstract concept with many facets that describes the implementation of a business concept and has uses for different purposes of different people. Some people assume that the success or failure of a business may depend on its business model. Consultants and academics use BM word to describe the operations and concepts of business model of

an entity and now the concept of BM has become a relevant concept in the glossary of management (Tikkanen et al. 2005, p. 789; Lambert, 2008).

The business model is a strategic concept used to describe the success of the company (Shamloo et al., 2011; Montgomerie & Roscoe, 2013), industrial developmen (Chesbrough, 2007), and technological routes (Baden-Fuller & Haefliger, 2013; Rumble & Mangematin, 2015). Although there is no generally accepted definition of the business model, experts and academics know that as the logic or method that the company uses to create and sustain value for its shareholders while it appears that a more coherent definition, will be more valuable (Casadesus-Masanel & Ricart, 2010).

The competitiveness of a country is because of the competitiveness of its business centers, and the competitiveness of an organization depends on the quality of the interaction of its business model with the environment to produce value-added options. Three elements are important for the idea: First- value added means the removal of a company and its supply reduce overall (value pie). Second- the business model of a company is the key factor determining its ability to increase value, this in turn is a prerequisite for the ability to attract value (Brandenburger & Harborne W, 1996), and thus their survival is retained. Third- business models do not work in isolation, but they interact with business models of other industry-customers, suppliers, competitors, and producers of alternative and supplementary products. Environmental movements and Tactical-strategic movement of other industry players affect the ability of a company to create and maintain value (Casadesus-Masanel & Ricart, 2010).

We have defined business model as a set of choices and results associated with these choices. There are obvious questions: what constitutes a

good business model? How can a business model be considered as bad? A good business model is a model that allows the company to achieve consistent goals - whatever they may be. Goals of the company may include maximizing profits, a better environment, and more pleasant workspace (Casadesus-Masanel & Ricart, 2010).Based on the opinions of Shafer, Smith and Linder (2005), a business model is a tool that attempts to show the company's core logic and communicate with the company's strategic choices (Bezerra Barquet et al., 2013).

As Osterwalder, Pigneur, & Tucci (2005) say business model is a conceptual tool consisting of objects, their attributes, and relationships that provide a simple description of the company's business logic (Bezerra Barquet et al., 2013). These models, in the first stage, are cognitive tools that have a mediating role between management thinking and interaction in economic activities (Baden-Fuller & Morgan, 2010; Chesbrough & Rosenbloom, 2002; Martins, Rindova, & Greenbaum, 2015; Aversa, Haefliger, Rossi, & Baden-Fuller, 2015). Tikkanen, Juha-Antti, Parvinen, & Juha-Pekka (2005) are the people who consider business model as a system of materials and cognitive elements belief system of the company (Mikhalkina & Cabantous, 2015).

### **Aspects**

Business model of a company has two aspects: the internal and its external alignment. The power of a company against its employees gives it the ability to coordinate productivity activities. When interacting with other agents on the open market, the company does not have this kind of power, and so have to buy the resources and products by appealing to its self-interest from

other persons. However, in a free market, it has the strength to determine those with whom he will not trade (Casadesus-Masanell & Heilbron, 2015).

### **Domestic law**

Companies have the power to organize their employees the way they wish, and the activities that by using raw materials and other resources produce value in the form of and acceptable product or service on the market. Activity system is a useful way to think about how the actions of the organization create value. However, at the same time, it is a very simple form of communication between the company and the activities of its employees (Casadesus-Masanell & Heilbron, 2015)

### **External alignment**

Companies make choices in connection with which foreign entities to negotiate and participate in which foreign transactions. Supply Chain defines the persons who are responsible for providing company goods to the market. A simplified view of the supply chain includes companies that are responsible for the continuous activities, which are organized with a specific order to do the job. The goods flow from producers to consumers; money is in the opposite flow, anyone pays money in return for the goods he received from the previous element in the chain (Casadesus-Masanell & Heilbron, 2015). Following (Teece, 2010), (Baden-Fuller & Morgan, 2010) emphasized the aspect of the model for business models. Models play a mediator role between theory and practice that enables the researchers and managers to be able to study about the world and realization of the reality of the things (Morgan, 2012) Administrators can use business models for concept making and

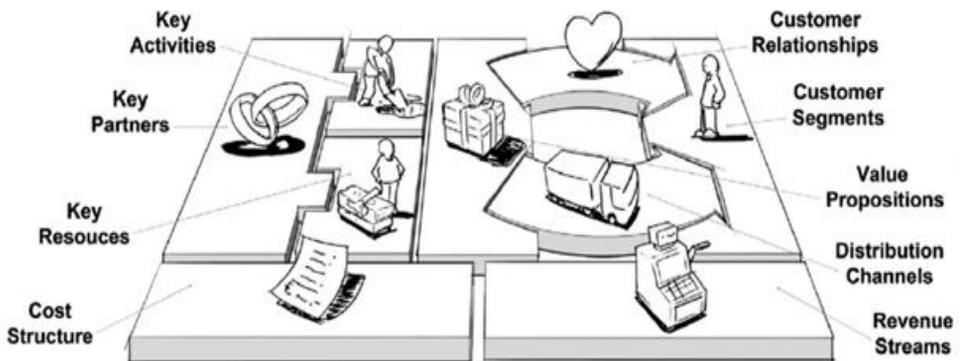
modeling of new businesses or to change in business or drawing a competitive environment as well as a better understanding of how a business works (Rumble & Mangematin, 2015).

## **Elements**

Many studies have referred to the elements that make up the business models. Abd Aziz, Fitzsimmons, & Douglas, 2008 studied the business models and found more than fifty-four different elements. Accordingly, these elements include Value net, target market, value proposition, the merits of the company, cost elements, strategy, process and activity, income and price considerations, competitors, communication with customers and many other things. Variety of business models shows that different structures can be used to build a business model. This may create confusion when creating the characteristics associated with each element and thus may prevent the complete definition of the business model (Bezerra Barquet, de Oliveira, Román Amigo, Cunha, & Rozenfeld, 2013). Nine elements make up business model canvas Model shown in Figure 1: Value proposition, customer segments, distribution channels, customer relationships, revenue streams, key resources, key activities, key partners, and cost structure. These elements are described as below:

- Customer segments: groups of people or organizations that a company plans to achieve and maintain
- The value proposition: product or service that provide value for a particular client
- Distribution channels: Companies facing with customers
- Customer communications: all kinds of communications that a company creates and preserves with a specific customer segments.
- Revenue streams: revenue of a company that comes from each customer segment

- Key sources: assets needed to provide and deliver the elements mentioned above
- Key activities: activities involved in providing delivery of the elements mentioned above
- Key partners: a network of suppliers and partners that supports the implementation of the business model
- The structure of costs: costs incurred in the implementation of a business model (Bezerra Barquet, de Oliveira, Román Amigo, Cunha, & Rozenfeld, 2013).



**Figure 1.** Nine element canvas of Business Model (Osterwalder & Pigneur, 2010)

A business model is completed with the following functions:

- Professional expression of a value proposition (the value created for users through a proposal based on the technology)
- Identifying a specific market segment and revenue generation mechanisms (e.g. which technology and for what purpose is useful for users)
- Determining the structure of value chain needed to create and distribute supply and complementary assets that are necessary to support the position of the company in the value chain
- Explaining the details of the income mechanism through which in return for supply of the company, it is paid
- Estimating the cost structure and profit potential (value chain structure and valued proposition).

- Explaining the company's position in the value network that connects suppliers to customers (including identifying potential amendments and competitors) and
- Formulation of competitive strategies by which the innovative company acquires more advantages than competitors (Markovic & Salamzadeh, 2012; Chesbrough, 2010).

Three main functions of business models:

- - Providing a way to express and classify businesses
- - Are used as places for scientific research and
- - Act as instructions for creative directors (Perkmann & Spicer, 2010).

This view considers business models not only as real phenomena, but also as a cognitive tool that involves a significant understanding of the causal connections between traditional elements within the company and exterior elements (Baden-Fuller & Mangematin, 2013; Mikhalkina & Cabantous, 2015).

### **Types of Innovation Strategies**

**Industry model:** This approach is associated with innovation in value chain of the industry.

**Revenue model:** This approach is associated with innovations that refer to how to generate revenue through reconfiguring of offered (product, service, and value composition) and/or the introduction of new pricing models.

**Investment model:** This approach is connected with innovative investment structures and the role it plays in current or new value chain associated. It focuses on redefining the boundaries of the organization (Giesen, Berman, Bell, & Blitz, 2006).

Amit and Zott, in their study of business models, identified four key elements of innovation in business models: being new and emerging, being closed, complementarities and efficiency. Since these four elements are essential in setting up the right business model, they rarely conflict with company work (Amit & Christoph, 2001).

### **Barriers to Innovation in Business Models**

Although the concept of business model is thriving in recent years and entrepreneurs and managers are increasingly looking to implement it, business models also have a dark side. If the business model formed in the professionals' community does not have a strong backing in terms of theorizing, designing business models is largely in a non-structured and multi-faceted form and no clear definition of it can be found (Ghezzi, 2014).

There are various theories and concepts to study the barriers to the development of innovative business models and work to increase our understanding of why 75% of businesses fail in the starting of development stage (Sivertsson & Tell, 2015). Companies experience different obstacles during the development and implementation of innovative business models. Business, government, and civil society can help companies overcome these challenges. Obstacles that companies face in the development stage refer to the lack of interest or opportunities: competing priorities, weak domestic support, lack of the necessary experience and skills that are mentioned in this phase as key skills.

## **Obstacles to Development of Innovation in Business Models**

### Lack of interest:

- Lack of awareness or understanding of business models
- Insufficient publication of information on existing business models in similar businesses.

### Perception of risk and competing priorities

- Since the business model may be considered as cooperating social responsibility in multinational companies, there is the risk that the business units be abandoned
- The recession causes a contraction in the center of the priorities of business survival
- A special market in which the company is active may not have the sufficient scale to ensure follow-up initiative plans in business models.

### Low acceptance by senior management

- Innovative business models need to be led by senior management. Dreaming leadership can enable companies to gain experience in small quantities and spread it to goals that are more ambitious.
- Without inner hero, the implementation of initiatives is difficult.

### Weakness of opportunities or capabilities

- Lack of experience, skills, and resources
- Identification and assessment of internal innovation and mental strength is difficult.
- Organizations have deficiencies in the field of market insights and knowledge needed to identify the best market opportunities
- Opportunities to start innovations from the fields of innovation are often left without exploiting them.

### Disconnected internal stakeholders

- The use of different languages from the Central Business Unit makes identifying common goals difficult.

### Political and legal environment

- Political and social perceptions and prejudice against profitable models of business models is often a barrier to compliance
- Health and safety risks, being involved with small businesses can be a barrier to expansion of initiative, because it is difficult to ensure the approved safety standards.
- Complex or obscure environmental laws could undermine the company's investment in primary markets.

### **Barriers to Implement Innovation in Business Models**

Once an idea has been developed and approved, the company moves towards implementation, monitoring and expanding of the business model with continuous follow up of management. The key challenges during the running stage are expensive setup costs, the need for consumer financing, marketing, and distribution of new products and services and the difficulty of gaining access to the market, operating environment risks, working with new partners, and external stakeholders.

#### Financing and start-up

- Internal funding to launch business model innovation is often a problem. In addition, access to capital is a major challenge of merchandising companies.
- Launching a leading business often has the role of a separate structure to accelerate the process and efficiency of its costs.
- Initiatives need a long time to scale up even after proof of concept. In addition to this, funding to invest in marketing can be a challenge.
- Legal issues, corruption, and bureaucracy are obstacles to initiatives in key markets.

#### Manufacturing and supplying demand

- Establishing brand awareness in markets is crucial but it is very challenging.
- Local infrastructure may need investment.

- Creating new partnerships can be time-consuming and risky for distribution.

### Management and operational issues

- Sometimes, the director of the central office supports the initiative, but local moderators are less supportive.
- Safety of human resources for new initiatives can be problematic and lead to conflicts within the organization.
- It is possible for staff to need teaching to develop their own unique skills that are essential for innovation.

### Monitoring and measuring effect

- Business initiatives often require different measurement and monitoring mechanisms.
- Organizations often do not have the time, resources or expertise to measure the impact of development (IBLF, 2010).

Six factors below are identified as barriers to innovation in business models by people employed in the industrial sector:

1. Short-term focus
2. Lack of time, resources, or staff
3. The expectations of the leadership are sooner toward the return in comparison to what can be done in reality.
4. Leadership incentives to reward innovation are not structured.
5. Lack of innovation process
6. Believing that innovation is risky (Loewe & Dominiquini, 2006)

Kurt Weber et al., state that the creation of new business models needs creativity and its implementation needs innovation and creative people and other members of the organization cannot work alone in the business model and create innovative organization, so innovation in business models, without teamwork is not practical. He defines pillars of innovation management

in the form below three pillars: (i) The existence of a definite and clear strategy for innovation, (ii) The existence of a systematic process for innovation, and (iii) Effective allocation of resources for innovation projects (Weber, Cadis, & Somodi, 2009).

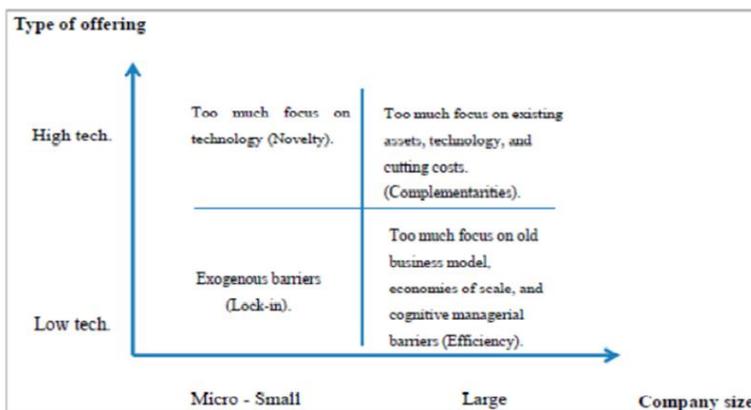
In inside and organizational environment, business models may deal with obstacles: for example, managers may not well understand the existing business model, and considered it as a challenge for redevelopment (Johnson, Clayton, & Kagermann, 2008). Sivertsson and Tell believe that for managers to be able to accept innovation in business model, first they must understand the existing model. This is a critical step in business model innovation (Sivertsson & Tell, 2015).

Chesbrough identifies two kinds of obstacles for business model innovation. The first obstacle occurs in circumstances when current assets need to reconfigure and operational processes need to be changed. The second obstacle is cognitive. Senior managers whose position is developed in the current business model may hamper the development of new business models. In addition, it is possible that when a company changes its business from one model to another be at the risk of injury to its central competencies (Govindarajan & Trimble, 2005). Clayton Christensen considers the cause of conflict in innovation as the conflict between the business models, which has been created for existing technology and business model that is required to trigger disruptive and emerging technologies (Chesbrough, 2010).

The success of a business model heavily depends on information exchange during the decision-making processes. This logic helps companies in assessing what information is important and helps them seek out information to fit their logic and avoid what is in conflict (Chesbrough, 2010). In

a study in the agricultural sector in Sweden, Tell and Sivertsson identified some of the obstacles to the development of business models as human factors such as attitude, history and traditions, and others like rules, government policies, water, and air that are deeply rooted in the agricultural industry. (Sivertsson & Tell, 2015).

Business-model innovation barriers fall into two categories: Endogenous and exogenous obstacles. Exogenous obstacles are related to the environment and have been built on current market conditions. Usually companies are not able to control or influence the external conditions. Companies that are standing create internal barriers based on competitive behavior and their responses to the newcomers in their market (Weber J. M., 2013). Barriers to innovation of business models can be displayed graphically (Figure 2). "Type of presentation" is shown in Y and "size" of the company is displayed on X graph. Type of presentation (high level or low-level technology) depends on the result the company gets from the application of technology in the production. Company size refers to the number of employees and annual returns of working capital.



**Figure 2.** Barriers to innovation of business models (Richter, 2013)

In a study conducted in the sustainable energy sector, Richter (2013) points out that managers focusing too much on newly developed (emerging) technologies and this prevents the focus from thinking up imaginative, to innovate in business models and it is a clear necessity. On the other hand, the large high-tech companies largely focus on the assets, their existing technology, and reducing costs. This focus on the supplements can prevent innovation in business models. Large companies with low level of technology have business model structure that focuses on productivity through economic measures. The focus can be problematic for managers who want to improve their ability to grow business with the limitations of the model (Richter, 2013). For newcomers and challengers in a market or industry sector, a very effective strategy is disrupting and competition with the leaders through the introduction of an innovation model. According to this theory, being aware of the danger at the introduction of an innovation by a company is seen as an obstacle (Sivertsson & Tell, 2015).

**Table 1. Research literature**

<b>1</b>	BARRIERS TO PROGRESS: A Review of Challenges and Solutions to Inclusive Business Growth	2010	International Buainess Leaders Forum(IBLF)	Business models	Financing, installation, manufacturing and supplying demand, managerial and operational issues, monitoring and measuring effect
<b>2</b>	Overcoming the barriers to effective innovation	2006	Pierre Loewe &Jennifer Dominiqini	Business models	Short-term focus, lack of time, resources or staff, unrealistic expectations of the leader, lack of structured rewards, lack of innovation process, believing in innovation risk
<b>3</b>	Innovate Your Business Model	2009	Kurt Weber, Aura Cardis,Aniko Somodi	Business models	The absence of a specific strategy, no systematic process, lack of resources, people's attitudes, traditions, history, law, government
<b>4</b>	Barriers to Business Model Innovation in Swedish Agriculture	2015	Olof Sivertsson & Joakim Tell	Business models	Lack of understanding of the business model in the organization from the part of senior management
<b>5</b>	Ten Rules for Strategic Innovators: From Idea to Execution	2005	V Govindarajan & C Trimble	Business models	Need to reconfigure assets, the need to configure operational processes, worrying of senior managers of the organization, the cost of additional financing, risks of damage to the core competencies of the organization
<b>6</b>	Business Model Innovation: Opportunities and Barriers	2010	Henry Chesbrough	Business models	The contrast between emerging technologies and business models of organization, lack of adequate information about the decision-making processes
<b>7</b>	A new, but old business model for family physicians	2013	JM Weber	Business models	Endogenous (competitive behavior and its responses to the newcomers in the market) and exogenous (environment and market conditions)
<b>8</b>	Business model innovation for sustainable energy: German utilities and renewable energy	2013	M Richter	Business models	Too much focus of managers on high-level technology, too much focus of managers on productivity and cost reduction

## **Research Methodology**

To specify the method, Research Process Onion that was introduced by Saunders, Lewis, and Thornhill in 2003 to reach consensus on the methodology and now accepted by most researchers worldwide is invoked (Saunders, Lewis, & Thornhill, 2003). The purpose of this research is ranking of barriers to innovation in business models and its paradigm is positivism. Given the purpose, the present study is an applied research. Because the challenges and barriers to innovation in business models have been identified in previous valid studies and in this study, we are looking for ratings and systemic analysis, this study follows the deductive approach. The method is quantitative. In this study, to collect data we have used literature review and field methods. This study is descriptive and causal-comparative, seeking to identify the main reasons for the lack of innovation in business models. The instrument used for data collection in this study is a questionnaire consisting of two parts. The first part includes questions about respondents' demographic characteristics such as job status, organizational status, business expertise, experience, organizational unit) and the second part of the questionnaire includes questions covering the study variables. In order to rank the barriers to business model innovation in forty-five barriers have been identified, all of which are extracted from previous credible sources and researches. In addition, open-ended questions are listed at the end of the questionnaire. All the questions of the questionnaire are designed through five-item likert and the numerical value of 1 to 5 have been selected item (too much = 5, high=4, average = 3, low=2, too low=1).

The population of this study includes all firms of management consulting services in Tehran, over 500 companies. Using Cochran's Alpha test,

desired sample size, with limited population size, was estimated at 196 companies and for more reliability, 200 questionnaires were distributed.

There are different models for ranking priorities of different factors in various studies, the most famous of which is family of Multiple Criteria Decision Making (MCDM) involving different techniques like Technique for Order Preference by Similarity to Ideal Solution (TOPSIS), Analytic Hierarchy Process (AHP) and so on that are used so often due to usability. Nowadays, they are widely used throughout the world. Meantime, according to the consistency that exists between TOPSIS model and research needs, this model has been used for ranking. TOPSIS technique is based on the concept that the selected options have the smallest distance with the negative ideal solution (worst possible). In this research, we use Fuzzy TOPSIS introduced by Chen for more accuracy in above ranking.

## **Results**

In order to determine the validity of the questionnaire the following steps were taken: (i) Developing the questionnaire based on indicators derived from the theoretical model (content validity), (ii) Endorsing the questionnaire by industry and university experts (content validity), and (iii) Exploratory factor analysis of questionnaire items (factor validity). Using factor analysis, one can identify whether the questionnaire measures the intended indicators or not. In factor analysis, questions designed to evaluate a specific index or trait should have a shared factor loading. Variables in the analytical model of this study include 45 questions that are related to the barriers to innovation in business models of management consulting firms in Tehran. In this study, using exploratory factor analysis techniques, primary variable

factors were extracted the results of which are as follows: Given that the equity of nine factors is more than 1, it can be said that the items of the questionnaire form nine factors and these nine factors explain about 88.5 percent of variance. Factor rotated matrix loadings shows the value of factor loading of each question and the number of sub-categories presented in Table 3. In this study, to determine the reliability of the questionnaire, Cronbach's alpha is used. The method is used for calculating the internal consistency of measurement tools that measure various attributes. Since in this study, Cronbach's alpha is greater than 0.7, the test has good reliability.

**Table 2.** Cronbach's alpha

Cronbach's Alpha	N of Items
.703	35

Indicators listed in the table are the variables that the absence of any is a barrier to innovation in business models that are identified and classified. According to the concept and nature of the indices constituent of each factor, the desired name is selected.

**Table 3.** Rotated factor matrix

	Component								
	1	2	3	4	5	6	7	8	9
Q1-Correct understanding of business model in organization	<b>.757</b>								
Q2- Awareness of business model			.362		<b>.721</b>				
Q3- Enough information about similar businesses models		-.301				<b>.724</b>			
Q4- Organization business model priorities in economic depression	.358			.340	<b>.717</b>				.336
Q5-Enough scale for following business models innovation							-.859		
Q6- Dreaming leadership	-.782		.449						
Q8- Efficiency experience	-.316							<b>.756</b>	
Q9-Necessary insight for identifying market opportunities			.586	<b>.542</b>					
Q11- Shared targets in organization units						.317	.423		
Q15- Supply internal costs						.505	-.512	.341	
Q16- Supply marketing asset	.319	.396	.358	.383	.576				

	Component								
	1	2	3	4	5	6	7	8	9
Q17- Regulatory requirements in markets			<b>.727</b>						-.495
Q18- Bureaucracy in working environments				.394				<b>.838</b>	
Q21- Partnership risks in distribution channels			<b>.876</b>						
Q23- Human resources safety risks			<b>.921</b>						
Q24- Internal Conflict in organization	.436	.585							<b>.613</b>
Q25- Staff training needs		-.511	.334		.333	-.414		.388	
Q26- Monitoring mechanisms							<b>.886</b>		
Q27- Nessesary resources for monitoring									<b>.916</b>
Q28- Nessesary time for monitoring	-.539			-.421				.441	
Q29- Nessesary expertise for monitoring		.380		-.788					
Q30- Focus time on business model	-.485	<b>.777</b>							
Q31- Leadership Impractical Expectations					.369		-.372	.489	
Q32- Rewarded by the leadership	-.359	.359			<b>.648</b>				
Q33- Risk in innovation				<b>.919</b>					
Q34- Team work		.337		-.659			.375	.403	
Q35- Defined strategy	.499	.380	.338	.414		.372			
Q36- Systematic process		<b>.799</b>			.412				
Q38- Operational processes configuration	.571				.385	<b>.581</b>			
Q39- Top management tendency	.450	-.329	.319	-.515		-.330			.302
Q40- Top management anxiety		<b>.895</b>							
Q41 - Adequacy of decision-making information					<b>.678</b>	.358			
Q42- Accuracy of decision making information	-.787		.335			-.359			
Q43- Focus on emerging technologies	<b>.807</b>								
Q 44 - Focus on Productivity						-.864			

The results of the first phase exploratory factor analysis of variables are shown in Table 4.

**Table 4.** Categorizing variables in the first phase

Factor	Variable	NO
F1	Focus on emerging technologies	43
	Not understanding the business model of the organization	1
F2	Worrying of senior managers about risks of damage to the core competencies of the current organization business model	40
	No systematic process for innovation	36
	Short-term focus on business model	30
F3	Human resource safety in business model changing	23
	Partnership high risks in distribution channels	21
	Regulatory requirements in markets	17
F4	Risk in innovation	33
	Lack of knowledge and insight for identifying the best market opportunities	9
F5	Lack of awareness of business models	2
	Contraction in organization business model priorities in economic depression condi-	4

Factor	Variable	NO
	tions	
	No adequacy information for decision-making in business model innovation	41
	No Structured reward by top management	32
F6	Inadequate Publication about current business models in similar businesses	3
	The need to configure operational processes	38
F7	No monitoring mechanisms	26
F8	Bureaucracy in working environments	18
	Lack of efficiency experience about business models	8
F9	No necessary resources for measuring change and improvement effects	27
	Internal conflict in business models changes	24

To achieve a lower number of factors after obtaining average, a re-ranking among the influential factors was done. The output of the second phase of exploratory factor analysis is also shown in Table 5.

**Table 5.** Rotated factor matrix- second stage

	Component			
	1	2	3	4
F1			.730	-.399
F2				.921
F3	.859			
F4	.802	-.416		
F5	.632	.392		.394
F6		.851		
F7		.316	.531	.304
F8		-.646	-.358	
F9			.747	

### The Final Factors

The first factor of the second phase known as **Strategic Factors** include factors F3, F4, F5:

- Safety of human resources in changing business models
- Increased risk of developing partnerships in distribution channels
- Regulatory requirements in markets
- The existence of risks in innovation
- Lack of insight and market knowledge needed to identify the best opportunities in the market.

- Lack of awareness of business models
- The economic downturn and the creation of contraction in the center of the survival of the business priorities of the organization
- Lack sufficient information to make decisions for innovation in business model
- Lack of structured rewards on the part of leadership

The second factor of the second phase is called **Informational Factors** including F6:

- Insufficient publication of information on existing business models in similar businesses -S 3
- The need to configure operational processes

The third factor of the second phase known as **Managerial Factors** includes factors F7, F9, F1:

- Managers' too much focus on emerging technologies
- Lack of proper understanding of the business model existing in the organization
- Lack of resources available to measure the effects of development and change
- The incidence of conflict within the enterprise in business model changes
- Lack of mechanisms for monitoring and measuring

The fourth factor of the second phase is called **Systematic Factors** including F2:

- Senior managers worry about the damage to the central merits in the existing business model
- The lack of a systematic process for innovation
- Short-term focus on business model

**Table 6.** Ranking of factors in second phase

Second stage	First stage factors	Variable	Source
Managerial	F1	Too much focus of managers on high-level	(Richter, 2013)

Second stage	First stage factors	Variable	Source
<b>factors S1</b>		technology	
		Not understanding the business model of the organization	(Johnson, Clayton, & Kagermann, 2008)
	<b>F9</b>	No necessary resources for measuring change and improvement effects	(IBLF, 2010)
		Internal conflict in business models changes	
<b>F7</b>	No monitoring mechanisms		
<b>Systematic factors S2</b>	<b>F2</b>	Worrying of senior managers about risks of damage to the core competencies of the current organization business model	(Govindarajan & Trimble, 2005)
		No systematic process for innovation	(Weber, Cadis, & Somodi, 2009)
		Short-term focus on business model	(Loewe & Dominiquini, 2006)
<b>Strategic factors S3</b>	<b>F3</b>	Human resource safety in business model changing	(IBLF, 2010)
		Partnership high risks in distribution channels	
		Regulatory requirements in markets	
	<b>F4</b>	Risk in innovation	(Loewe & Dominiquini, 2006)
		Lack of knowledge and insight for identifying the best market opportunities	(IBLF, 2010)
	<b>F5</b>	Lack of awareness of business models	
		Contraction in organization business model priorities in economic depression conditions	
		No adequacy information for decision-making in business model innovation	(Chesbrough H. , 2010)
	No Structured reward by top management	(Loewe & Dominiquini, 2006)	
<b>Informational factors S4</b>	<b>F6</b>	Inadequate Publication about current business models in similar businesses	(IBLF, 2010)
		The need to configure operational processes	(Govindarajan & Trimble, 2005)

Results of ranking using Fuzzy TOPSIS show four management, system, strategic, and information factors as the following.

**Table 7.** Fuzzy TOPSIS analysis results for the nine dimensions

	<b>LF<sub>i</sub></b>	<b>MF<sub>i</sub></b>	<b>UF<sub>i</sub></b>
<b>S1</b>	0.95679	0.987654	0.969136
<b>S2</b>	1.259259	1.259259	1.259259
<b>S3</b>	0.061728	0.061728	0.061728
<b>S4</b>	3.654321	3.697531	3.685185

**Table 8.** Normalized Matrix

	<b>NLFi</b>	<b>NMFi</b>	<b>NUFi</b>
<b>S1</b>	0.259631	0.268007	0.262982
<b>S2</b>	0.341709	0.341709	0.341709
<b>S3</b>	0.01675	0.01675	0.01675
<b>S4</b>	0.991625	1.00335	1

**Table 9.** Final ranking due to the proximity to the positive ideal

<b>Rank</b>	<b>d+</b>	<b>d-</b>	<b>CCi</b>
<b>S4</b>	0.005208	0.998337	0.99481
<b>S2</b>	0.658291	0.341709	0.341709
<b>S1</b>	0.736468	0.263562	0.263554
<b>S3</b>	0.98325	0.01675	0.01675

Based on the above results, the priority of main factors that hinder innovation in business models based on importance are as follows: Informational Factors, Systematic Factors, Managerial Factors, and Strategic Factors

**Discussion and Conclusion:**

This study aimed to identify and rank the barriers to innovation in business models. The findings of this study have shown the main obstacles of lack of innovation in business models of the management-consulting firms in four categories and based on the importance of each, they are ranked as information, systemic, management, and strategic factors. During the study, the most important factor hindering any development of any organization regarding innovation in the business model is information factors. Based on the variables of this study, information factors include such things as insufficient published data on the existing business models is in similar businesses (IBLF, 2010). This can be due to the fact that in the business model of these companies much of the marketing process and concluding business

contracts goes through communication channels between individuals and sometimes based on previous knowledge and partnerships that is largely relationship-driven (Salamzadeh et al., 2014). In these communications, no fixed form can be found. Therefore, the dissemination of information to other companies in this field rarely occurs. Moreover, even sometimes, it is possible that this information is considered as the technology of the company in the field of marketing, new contracts and providing consulting services to clients, so it is natural that in this situation, organizations are reluctant to publish their work technology. Therefore, it seems that, it is better that companies look for creative ways to create innovations in their business model rather than trying to use the information of similar companies, and it can show the importance of creativity in business model innovation and more value creation in these companies. My executive suggestion to managers to eliminate or reduce the importance of this factor in preventing innovation in the business models is creating an appropriate cultural context in the organization for creative and innovative solutions and reducing prejudice or resistance to change and developing business model of the organization itself.

Pushing organizations toward a learning organization, welcoming creative suggestions from staff, and even time allocation from senior management to discuss executive strategies to create innovation in business model during group meetings have a great impact on strengthening innovative ways to develop a business model for the organizations. The second priority is systemic factors that have been identified as barriers to innovation in organizations. Having a systemic approach, including innovation activities in business-model in form of a systematic process (Weber, Cadis, &

Somodi, 2009), and compiled mechanisms can be of the advantages of the organizations that see development and innovation in business as a process. Organizations that can include features of a process for innovation in their business will be of leaders in innovation in their business models. The definition of business-model innovation inputs on the one hand, determining the expected and the unexpected output from this process on the other hand, as well as determining the necessary resources to transform inputs into expected outputs put a clear path of what had to be done, and what will be achieved before the organization, and of course lack of this process can also be an important obstacle in the path of business model innovation. The executive recommended to remove or reduce systemic barriers to business model innovation of organizations is among all the processes identified in their management system, they make and run a mechanism for innovation in their business models and by continuous monitoring of the process ensure its effectiveness. Management factors are the third priority among the barriers to innovation in business models. Issues such as orientation and management focus on emerging technologies, lack of enough knowledge of the management of the business model in the organization, lack of or failure to allocate the necessary resources to monitor the effects of change and development, conflict and Communication Disorders during the changes in business models could be discussed separately.

Emphasis on emerging technologies (Weber J. M., 2013) can make organization succeed in achieving its goals when it has good coordination with the organization's business model. Therefore, it is suggested that prior to selecting and deployment of new technologies, especially emerging technologies, organizations make sure of the lack of conflict between the busi-

ness model that has been created for new technology with the business model of the organization. My executive suggestion is that a part of the process of innovation in business models be allocated to expert meetings to ensure lack of contradiction between existing business model needed to be allocated emerging technologies. In this regard, in a study conducted by Chesberg and Govindarajan, and (2005) Trimble have mentioned it, two types of administrative barriers are defined for business model innovation. The first obstacle is related to firm's current assets and their condition, and second barrier is cognitive. This suggests the importance of management barriers and the need of organizations to pay attention to these obstacles.

During this research, strategic factors as barriers to innovation in business models are in the fourth rank. External and internal institutional factors that are considered as barriers are within organizational weaknesses and external threats (IBLF, 2010). However, depending on the situation and the appropriateness of the terms of organization, some of these internal weaknesses and external threats may not be the case. For example: the issue of legal requirements in changing business models in a group of organizations lacks relevance and is not considered as an external threat. Action to strategic planning, to determine the objectives and plans of the organization is a proper and effective method to identify strategic barriers to innovation and adopting proper strategies to reduce or eliminate these obstacles. In this regard, in a survey conducted by Weber in 2013, barriers to innovation in business models were grouped in two categories: exogenous and endogenous barriers and it is mentioned that those companies are consistent that create internal barriers on the basis of competitive behavior and their responses to the newcomers in their market (Weber J. M., 2013). This shows

the importance of applying a strategic approach in programs to achieve organizational goals and ideas. In a study in the agricultural sector in Sweden, by Tell and Sivertsson, it was concluded that the one part of obstacles to the development of business models are human factors, one part is attitude, history, and some are related to traditions of the people (Sivertsson & Tell, 2015). This suggests the importance of the role of innovation in business models.

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