A Classification of Business Models Based on Container Theory

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Abstract. Firstly, this paper reviewed several classifications of business models in the contemporary academia. Secondly, it proposes a new classification based on the container theory—according to the capacity and the tightness, business models can be divided into four fundamental types: dominant business model, certain market-occupied business model, worrying business model and gap business model. Finally, the essay describes the connotations and main features of the four business models through some specific cases.

Introduction

Although many scholars have done a large quantity of researches in the classification of business models, which shares something in common with the fundamental research stated previously, a completed, clear, practical and consensual system in this field has not been established yet. Apart from the incomplete fundamental research, two more reasons can be considered for this problem. One is that the factors that business models may involve are exclusive, which means to consider all the factors that involved are unrealistic when making a classification of business models. Therefore, different factors that applied by researchers may cause different results in classification. The other is that with the emerging of new factors under the constantly changing circumstance, it is almost impossible for researchers to set up a pervasive classification that can keep up with the ever-changing times.

However, because of the lack of measurable dimensions, it is difficult for people to further measure the size of business model or judge the quality of it. Accordingly, people can think back to the most basic two dimensions of business models, Customer Value Creation and Corporate Profit Acquisition, to create a new classification is considerable.

Existing Classifications

When reviewing the previous researches on the business models classifications according to research methods, there are three types. The first is to make logic reasoning to deduct a standard for the classification of business models. The second is to analyze a large number of cases to induct the corresponding business models. The third is to combine the above two methods—induction and deduction. For the reason that researches on business models start late, still staying in a growing-up stage, a theory including the definition, factors, and framework of business models that is relatively clear and consensual is not put forward yet, which makes studies on business models classifications superficial and limited. Therefore, doing classifications based on analyzing cases as well as making induction is popular among most of the scholars. On the other hand, according to different subjects, previous researches on the business models classifications may have two main types. One is the classification on the basis of electronic commerce business model. The other is that of traditional
commerce business model. Researches on the latter are relatively less than those on the former. It is mainly because traditional commerce has long history and diverse types, which means establishing a general business model that applies not only to electronic commerce but also to traditional commerce is much harder than doing that only for electronic commerce—a new-emerging phenomenon—although it varies from all walks of life, it has single business form and always in the same position of the industrial chain.

Timmers made a classification of business model for internet electronic commerce through combining logic reasoning and induction. Based on three dimensions of value chain de-construction, re-construction and interaction patterns, 11 potential business models were formed. They were E-shop, E-procurement, E-auction, virtual communities, trust services, collaboration platform, value chain service provider, value chain integrator, E-mall, information brokerage, and third party marketplace. Timmers’s approach was one of the earliest researches for business models. The matrix he made provided a brand new way to study the innovation of business models for electronic commerce. That is to create new business models by going far beyond traditional business such as value chain integration or interaction patterns change and seek innovative ways to add value on the other blank parts of the matrix. However, on account of the value chain theory it used, it may not apply to the emerging electronic commerce, and it neglected the analysis on combinations of primary forms of business models.

According to the conditions of capital control and value integration in the company, Tapscott made a deduction and classified business models into five main types: Agoras, Aggregations, Value Chains, Alliances, and Distributive Networks. He believed that in the light of the occurrence of electronic commerce, those types were therefore illuminated based on B-webs, which was a special commercial structure formed by the close cooperation and relationships among producers, distributors, service providers, infrastructure companies, and customers linked via digital channels from different industries. His way of doing the classification based on the integral value creation activities instead of the individual conditions of some companies provided a new way of thinking for the following studies on business models. Nevertheless, it is because the range of this classification is too wide that it cannot be applied in the reality as a guide.

Weill believed that the electronic commerce business model is more or less one type or the combination of the types of eight atomic business models. The models were: Content provider, direct to consumer, full service provider, intermediary, shared infrastructure, virtual community, value net integrator, and whole of enterprise. According to the above theory and business assets these two dimensions, Weill further divided business models into 16 types. This two-dimensional classification method formed by deduction and induction was a universal one according to which a lot of American companies could find their corresponding business models.

Osterwalder and Pigneur had made a classification on business models as follows: separation mode, long-tail theory mode, multilateral platform mode, no-fee mode, and open mode.

In all, as further researches are constantly carried out to the ever-changing modern business models, many other classifications will spring up on the basis of the above theories. The present typical ones still have great impact on researches of business models in many aspects like the structures, functions, and innovations.

**Container Theory Applied in Business Models**

Professor Li firstly proposes the container theory and applies it to the classification of business models. The theory demonstrates the business models as real existing objects and reveals the structure of the functional business models. Every section of the container model is identified by a specific task, which represents some certain duty or function required by Customer Value Creation or Corporate Profit Acquisition. Ultimately, all business models are composed of combinations of the activities derived from the sectional task. In a spatial sense, customer value, potential customer value exploring, company income, and resource network control are the four dimensions of business models. Every dimension represents the relations of particular factors. The more reasonable those
relations are, the better the qualities of those dimensions have. Results can be reflected through the section area. Thus, a business model can be considered as a container that formed by four different sections. From this, we can get two characteristics to distinguish different business models, namely the capacity and the tightness.

The Capacity

The capacity of the container illustrates how reasonable the relations that forming business models are. More capacity means the relations are more reasonable. Correspondingly, its regulating effect increases. Here, the capacity, which also means the volume of the container, is decided by the area of each section. At the same time, the area of each section lies on its reasonability. Different section in this container represents different ways of value creation or acquisition. For example, how the company chooses target customers, how to create and deliver customer value, and how to achieve self-worth are the ways of value creation or acquisition. When the evolved relations can benefit value creation or acquisition in many ways, it means the section is well-regulated and its area is bigger than that of others. As shown in the figure 1.

![Figure 1. Test for section area of business model.](image)

When to explain how it works, much capacity means it is a qualified business model, and its strong regulating function can decrease the dependence of the enterprise performance on some strategic actions. That is to say, in the management environment, a good business model can give more improved and perfected forecast in the business world because it creates some more beneficial external premises as well as some advantageous conditions. Hence, although some strategies of the company are not so effective, the business model of it will bring rich reward.

The process can be described in a vivid way. First, when comparing the real acquired financial performance to “nourishing water” that will flow into the great field—the company, the business model then can be considered as the container whose size will decide if the company can create Customer Value and get self-worth. It also can be said that the size of the container decides the potential performance or potential pattern of the company in the future. Having a business model (the container) with a big capacity can set a very beneficial management environment for the company, which means the company builds a profit pool with high storage. Depending on the great pool, the company is able to take its time to implement strategic actions on management in many aspects in order to transfer the conceptual capacity into real financial performance.

Conversely, a container with small capacity will set a relatively disadvantageous management environment in which the great profit pool may be switched into a tiny profit box. Under this circumstance of lacking sources for performance, there is no better way for the company to create targeted achievement even though it has the best managing activities like significantly improving the quality of products or developing human resources or polishing the corporate image. As a matter of fact, since a tiny business model cannot create the performance as expected, few companies have the chance or courage to struggle for those best management activities. The test for the capacity of business model means that for the area of each section of the container. The more area each section has, the larger the capacity is.
### Sections of business model

<table>
<thead>
<tr>
<th>Customer Value Proposition</th>
<th>internal key resources</th>
<th>sources of profit</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Factors of each section</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>X — main scale positioning;</td>
<td>X — redundancy of capacity;</td>
<td>X — premium on profit-generating point;</td>
</tr>
<tr>
<td>Y — problem attributing positioning;</td>
<td>Y — supply elasticity of key resources;</td>
<td>Y — harvest frequency;</td>
</tr>
<tr>
<td>solutions to customer’s problems</td>
<td>external cooperated resources</td>
<td></td>
</tr>
<tr>
<td><strong>Factors of each section</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>X — product performance ;</td>
<td>X — value added through network;</td>
<td></td>
</tr>
<tr>
<td>Y — supporting in the process;</td>
<td>Y — leap-proof function through network;</td>
<td></td>
</tr>
</tbody>
</table>

**Figure 2. Classifications on different dimensions of container theory.**

### The Tightness

The tightness means the leak-proof function of each section that forming business models. Obviously, if the business model of one company has big capacity but poor tightness, this model cannot be considered as a good one. The relations evolved in each section can steadily maintain definitely because they obtain support from those related rules. That is to say, if the rules that support the relations of the section have defects, the corresponding ways of value creation and acquisition cannot be fully achieved constantly in spite of its reasonability and advancement. Thus, the profit pool formed by the container will leak and lead to the loss of value, which makes the inner performance of the capacity damaged. Accordingly, the capacity decided by the area of each section of business model is not the only factor that will eventually influence the volume of business model or will bring potential profit under management environment.

Tightness of each section depends on the features of the rules mentioned above. One is the constraining force that the rules impose on the evolved relations. The other is the constant existence and usefulness of the rules themselves. The two concepts depend on the feature of exclusivity and sustainability respectively. Exclusivity means the possibility that the rules can steadily support the activities or actions which could benefit the business operations of local companies. High possibility means the high level of exclusivity. There are three factors deciding the exclusivity of the rules. First is the profitability, which means the rule indeed leads or supports activities expected by companies such as expected customers’ psychology, expected purchasing, and expected partnerships. The so called “expected” should be understood and judged from an objected perspective. The essential symbol for “expected” is its accordance with the vision of the goals of the company. Second is the constraining force, which means the influence that the rules have on targets. Theoretically, a rule with explicit profitability often has little constraining force. In contrast, a rule with strong constraining force may not be so beneficial. Third is the ability to prevent imitation. It is clear that an easy-imitated rule system will lead to the rapid “vanish” of a business model because others’ imitation makes this kind of business model less competitive among the sea-like business models. Therefore, an anti-imitation evaluation on the rules of business models is extremely worthwhile. Sustainability emphasizes on its own unique feature—the constant existence. In one rule, sustainability and
exclusivity are unrelated. A beneficial rule may have very low sustainability. For instance, one “good” regimen spread among some specific population groups could gain trust from people because of its inner particular features such as affordability, special efforts or easy operation. Under this circumstance, this rule has notable exclusivity. But at the same time, it is easy to be replaced by new trends for the reason that it lacks scientific evidence. This is a special example that shows a rule with high exclusivity may have low sustainability.

In conclusion, based on container theory, business models can be classified from the capacity and the tightness these two dimensions.

**Four Fundamental Business Models**

In times of Internet, developments of digital network stimulate the innovation of business models in every traditional business area from many aspects, bringing achievers, adventurers, followers, and conservatives of business models innovation in almost every field. Corporations that have different ideas and actions construct different business models. In the stage of economy in the contemporary society, the competition is between different business models, rather than different products. In container theory, based on the capacity and tightness, four business models can be concluded in the reality. They are dominant business model, certain market-occupied business model, worrying business model and gap business model. As shown in the figure 3.

![Figure 3. The classification on business models based on container theory.](image)

**Dominant Business Model**

Dominant business model has huge capacity and good tightness that can give great performance to the profit pool. That is why this model can have positive influence on the company’s market value. In most cases, the influence will not be restricted by the real performance.

Several features that help the formation of this kind of business model are listed. Firstly, Customer Value Proposition with a broad background is prior to any other requirement. In order to achieve this, constructors need to repeatedly examine and verify the reasonability and advancement of Customer Value Proposition at the initial phase of innovation. A CVP that can reflect the general developing trend of the times often corresponds to a pain point with high strength and frequency because the pain point that is chosen to be solved is the one unlikely to be aware of. Generally speaking, this type of proposition concentrates more on End Customer or individuals or household consumers. To speak in Internet language, a proposition which is Client-oriented is easier to lay a strong foundation for the large capacity. Secondly, create new sources of profit. On the basis of a CVP with broad backgrounds, innovators should focus on the effectiveness of providing solutions to customer’s problems. In the process, the technical breakthrough of a particular product is often needed, which helps to bring about new products in the business models with large capacity. And that is the meaning of creating new sources of profit. Conventional thinking mode usually blocks the entrepreneur from designing or choosing the unperceived profit points. That sources of profit in dominant business models are multiple and are often accompanied with some powerful cover projects is owing to the excellent performance of solving pain points by the solutions to customer’s problems. Thirdly, make full use of external resources. When it comes to the internal resources, the company needs to develop unique
core capability to influence productivity expansion and to form the uniqueness of key resources. As to external resources, they ought to constantly seek for new reasonable cooperation with others with the aid of various kinds of progress in the Internet world. Making the best of external resources for satisfying the situational supply when working for customers, the company can decrease the corresponding cost at the same time.

Certain Market-Occupied Business Model

Certain market-occupied business model has good tightness but small capacity. If the daily management in the company is good as normal, then this type of companies will continue to developing in a steady way even though the performance is not so good.

Normally, this model has a CVP which is distinct and clustered. The pain points of customers have high strength but low frequency. For instance, the company provides a reliable trade platform for someone who likes collecting. The solutions to customer’s problems from this model are often professional, with relatively simple lines. This professional and concise working circumstance usually has better pain relieving efficiency and adhesiveness of clients, which can result in the success in covering although sources of profit from this model are often simple. However the weak radiation of the inner key resources in this model limits the high-efficient reproduction of the customer situational productivity. The model rarely depends on the external key resources for it mainly relies on internal resources to provide solutions to customer’s problems.

Worrying Business Model

Worrying business model is easy to be set up in reality. The constructors may aim to form a dominant business model, but on account of numbers of reasons the ultimate model that they have formed is worrying type. The main feature of it is with high capacity but without good tightness. The major difference between certain market-occupied type and worrying type is that the real performance of worrying type is very fragile and unsteady even if it has tremendous potential performance compared with certain market-occupied type. Once there are some straight conflicts in the market, the capacity of this model may shrink rapidly because of the leaking due to the bad tightness. A crash on the real performance then will be triggered and each side especially the strategic investors will drastically reduce investments on the corporate value.

Worrying type starts with a CVP that is similar to dominant type. Some entrepreneurs who have sensitivity to the environment and a keen business sense may find some valuable pain points in the existing managing activities. Those pain points are valuable because they have extremely high strength and frequency resulting from the huge major scales. Wide range targets and high strength of pain points added with effective harvest strategy give this model a large capacity to develop more sources of profit. Nevertheless, three main reasons result in the bad tightness in this model. First, the adhesiveness of solutions to customer’s problems has hidden defects due to the weak ability to prevent imitation of solutions. If a solution with high pain relieving efficiency is weak in preventing imitation from others, it must stimulate to propose a competitive solution, which will inevitably cause the separation of market. If the customers are leaving instead of entering, then the pool is leaking. Second, exclusivity of the inner key resources has a low degree. It is can be seen in many fields such as city express, garment producing, film screening, and management of some portals. The last reason that will lead to a severe leaking is the low accessibility of the external key resources. Briefly, lacking of exclusivity of each section and the ability to prevent imitation contribute to form the worrying business model. It is associated with the insufficient accumulation of skills and core capabilities of the company.

Gap Business Model

The features of gap business model are obvious: low capacity along with severe leaking. This type may be of highest proportion in reality. It forms spontaneously because it is the easiest model with a lowest cost of learning. But from the perspective of management, this model is not convenient on account of the low capacity and bad tightness. The management under this model usually is tough and
difficult. Gap type is the simple copy of others without pondering. It merely focuses on some limited fields in a physical sense and the vague CVP that it has cause the loss of the potential customers. At the same time, a strong investing rigidity or cost rigidity can be seen in this model. The rigidity cuts the exclusivity of the solutions to customer’s problems, internal-external resources, and the adhesiveness of situational working for customers provided by companies. Common cases of these models include ordinary catering industries, traditional standard component (integral accessories) manufacturing, conventional domestic service, and some low-star hotels.

**Conclusion**

On the basis of the present classifications on business models, the essay proposes two dimensions—the capacity and the tightness—to divide business models according to container theory. The capacity of the container is decided by the area of each section in the business models, while the tightness is determined by the features of those sections, including exclusivity and sustainability. In accordance with these two dimensions, business models can be separated into four types: dominant business model with large capacity and good tightness, certain market-occupied business model with good tightness but small capacity, worrying business model with large capacity but bad tightness, and gap business model with small capacity and bad tightness. In addition, the essay makes comparison to explain the characteristics of the four types from the aspects of Customer Value Proposition, solutions to customer’s problems, source of profit, and internal-external resources acquisition. This classification will provide inspiration to evaluate old theories and create new theories for business models and to practice new business models.

**References**


