

New Business Model Generation Process Model Construction

Xirong Gao, Hongyan Ran

School of Economics and Management, Chongqing University of Posts and
Telecommunications, Chongqing 400065, China.

Abstract

In order to study the production process of the new business state, this article summarizes the technical elements, economic elements, and the connotation and relationship of the new business state based on previous research and analysis, and used the biological evolution theory, the stage gate theory to construct the basis A new format generation model for the combination of technical and economic elements. The model framework mainly included the combination of technical and economic elements generates potential new business formats, stage door screening of potential new formats and the final generation of new business formats. The main conclusion was that the generation of new business forms was the process of "generating" potential new business forms based on the combination of technical elements and economic elements then screening and "becoming" realistic new business forms. The research results were helpful for predicting new business forms and making policy recommendations to help accelerate the promotion of the economy structural optimization and upgrading.

Keywords

New Business Model; New Business Formats; Elements.

1. Introduction

Vigorously developing new business formats is a national strategy. The National Strategic Emerging Industry Development Plan issued by the State Council in 2016 emphasized the need to comprehensively create an ecological environment that promotes the vigorous development of new technologies and new business forms, emphasizes the need to promote the integration of new generation information technology and emerging industries in various fields, and accelerate industrial transformation and upgrading to form new kinetic energy. The hot words of the two sessions last year included the new business of housing economy that was spawned by the epidemic. This year, the two sessions of local governments also discussed digital economy, new business formats, and new models as the focus, and local government work reports have even proposed to support the development of new business formats. With the optimization and upgrading of the economic structure, the country has repeatedly emphasized the importance of the development of new industries and new business forms. It can be seen from this that vigorously developing new business forms has become the strategic focus of my country's industrial and economic development. The endless emergence of new technologies and the rapid advancement of social division of labor have made new business forms turbulent, and exploring how new business forms are formed and the rules of formation has also become an urgent problem to be solved. Under this realistic background, studying how new business forms are generated has become an important issue, which can help make policy recommendations and help accelerate the optimization and upgrading of the economic structure.

Scholars at home and abroad have used different theories and different perspectives to form many academic results. Adner (2010) was concerned about using the theory of system emergence to explain three types of innovation problems, namely new technologies, new

models, or new business forms. Xu Yangyang (2015) explored the formation mechanism of new business types from a micro perspective, that is, from the perspective of "entrepreneur innovation", and formed a business innovation cycle path from "entrepreneur innovation-new business format generation", indicating that entrepreneurial innovation is a modern service industry. The main factors for the generation of new business formats. Entrepreneurs have developed new business models in the market through technological innovation, product and service innovation, and business model innovation. This new model is just a business embryo at the beginning, and when it appears in the market When it has a strong competitiveness, it will gradually be learned, copied and imitated by other similar enterprises, and the same kind of business model will increase, and then a new business format will be formed. Luo Xianzhi (2017) uses literature data and theoretical analysis methods to conduct qualitative research on the inducing factors that foster the development of emerging business formats and the mechanism of government regulation. Existing research has hardly explained the generation process of new business forms from scratch, and there is no further discussion in this regard. This article attempts to redefine the new format and build a model to explain how the new format is generated from scratch.

The follow-up part of this article includes the core concept of the elements in the model, research theory and research methods, new business format generation model construction, and summary. The conclusion of the new business format generation model based on technical and economic elements is reached.

2. The core concept of the elements in the model

2.1. Format and industry sub-categories

The subcategory is the performance of the current industry refinement to the last level. It is a collection of producing similar goods or providing similar labor services. The subcategory can explain what services are provided and the form in which the service is provided and other content at the demand level. The subcategory exists in the organizational form of the organization, which can be concretized to reflect the enterprise (the sum of the enterprise and the operating mode), industry, and industry, and conform to The academic research scope of the existing business format involves a wide range of conditions, as shown in Figure 1. This article believes that the scope of the business is larger than just a single enterprise (business model), and at least there is a set of enterprises with the same attributes, which proves the survival of the business.

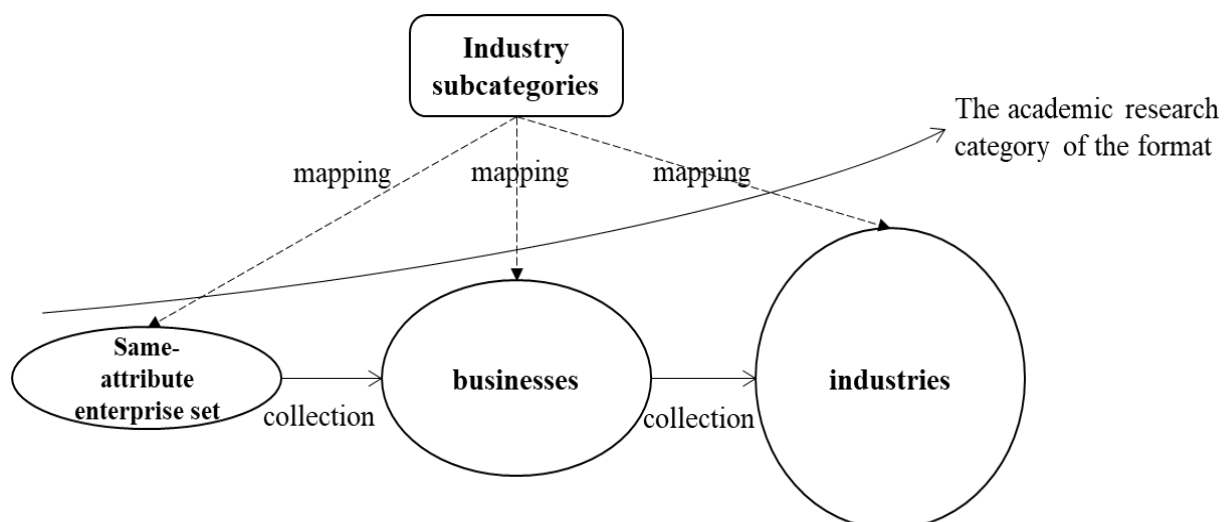


Figure 1. Subcategory mapping and academic category map of business format

2.2. New formats and elements

As shown in Figure 2, the increase of industry subcategories, the emergence of new subcategories is the result of the in-depth division of labor. There are many possibilities for refinement. Among these possibilities, there may be new business formats in the future, which can be reflected in the future addition of small businesses. Class.

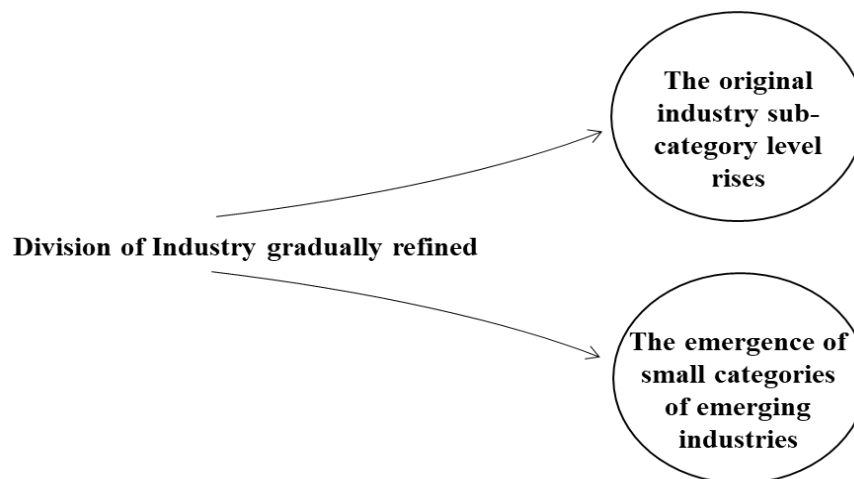


Figure 2. Industry sub-category increase process

Analyzing the new additions in 2017 compared to 2011, based on the above, the generation of new formats can almost be classified into two categories. First, the technology is not clearly manifested, and it is mainly diverged by demand. The previous industry sub-categories have been refined to form the current hotel services, campground services in the accommodation industry, and takeaway food delivery services in the catering industry. Second, the technology is obviously integrated and applied to the previous industry sub-categories to form the current Internet wholesale and Internet retail, as well as Internet production service platforms, Internet life service platforms, etc. Extract the keywords "technology", "demand", and "subcategory". What service is provided in the subcategory and the form in which the service is provided is exactly the embodiment of the demand, so only the keywords "technology" and "subcategory" are retained. This article uses technical elements and economic elements one-to-one correspondence between "technology" and "subcategory" to explain the generation of new business forms, combined with the research of survival theory, redefine the new business form: the new business form is based on the combination of technical elements and economic elements that have undergone certain tests. A new type of enterprise, industry or industry that has survived stably.

In view of the endless nature of technological development, this article defines technological elements as "the smallest unit of the current technological system that is no longer subdivided", expressed as "single technology". Now is any point in time after the computer and information technology revolution. Technological evolution and innovation, single-technology dynamic changes, then the technological system formed under a single or multiple single-technology cross-combination is also dynamically changing; the economic element in this article refers to "the smallest unit of the current economic system that is no longer subdivided", using "Industry sub-category" (service industry category) means.

2.3. Combination of technical elements and economic elements

The "combination method one" of technical elements and economic elements: technology is invisible, and demand forces the industry to differentiate. At the beginning, basic services emerged as the service industry became a new industry. With the advancement of technology,

the division of labor in society has been deepened, the level of specialization has been continuously improved, and the demand has become diversified. Business status. Under this combination, technology is not the protagonist but diversified needs. Technology is only used as a recessive accompaniment to promote its differentiation under the industry; the "combination method two" of technical elements and economic elements-explicit integration of technology, direct application of technology Industry differentiation. Reflected in the direct marketization and industrial application of technology, the integration of technology and service industries directly evolves new business formats. For example, a series of new forms after the development of the network platform, at this time technology is the key role. As shown in Figure 3, it reflects the new business model that has survived certain tests based on the combination of technical elements and economic elements. The gray areas represent multiple possibilities for industry refinement, and within these possibilities there are new business formats in the future.

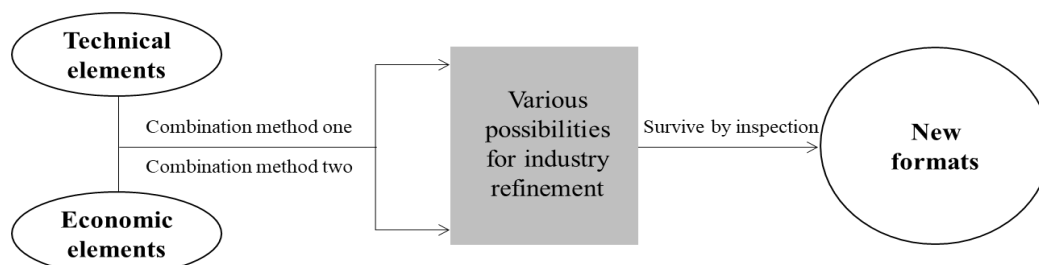


Figure 3. Two combinations of technical elements and economic elements

3. Research theory and research methods

Theory of biological evolution. The law of biological evolution is "survival of the fittest and survival of the fittest", and the same is true for business formats. This article draws on the theory and the test factors of new business state generation to construct a new business state generation model, and believes that the generation of business state needs to undergo screening. After all, there are many possibilities for "generation" from the combination of technical and economic elements, and not all of them are possible. Can "survive". Based on previous studies on the influencing factors of the formation of new business forms, it is concluded that the form derived from the combination of economic elements is tested as a new form of business through policy support, and the form derived from the combination of technical and economic elements is tested through market support to form a new form of business. The combination of technical and economic elements is a new business format through the value realization test "success".

Stage door theory. Phase gate is a new product development process management theory proposed by Cooper. Cooper divides the development of new products into five different stages. Before each stage, a decision point is set for cards or clearance/elimination, and a screening process is conceptually proposed. This paper draws on this theory and applies it to the process of generating new business forms, and constructs the stage gate screening stage in the new business form generation model of the combination of technical and economic elements.

4. New business format generation model construction

4.1. The overall framework of the model

Based on the stage gate theory and the biological evolution theory, the form born from the combination of economic elements is tested by policy support. The form born from the

combination of new business forms and technical and economic elements is tested by market support. The form born from the combination of new business forms and technical and economic elements is tested by market support. The form has passed the value realization test "success" as the two stages of new business format construction stage gate screening and value realization. The stage gate screening stage is a predictive screening process, including the index system and the elimination stage. In comparison, the value realization stage is a realistic screening process. As shown in Figure 4, the specific content of the framework is: the combination of economic and technological elements forms a potential new business format. Potential new business formats become reality through stage gate screening and value realization stages.

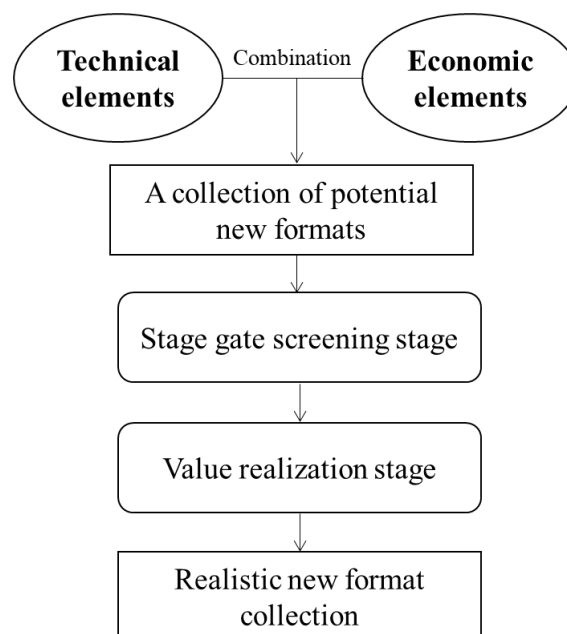


Figure 4. The overall model framework for the generation of new business formats

4.2. The combination of technical and economic elements generates potential new business formats

Based on the conceptual definition of research design, two ways of combining technical and economic elements are concretized. The "combination method one" of technology and economic elements-technology invisible accompanied by demand grafting industry sub-categories. Reflected in the industry differentiation driven by demand. In the beginning, basic services emerged as the service industry became a new industry. With the advancement of technology, the division of labor in society has been deepened, and the level of specialization has increased. People's needs have become diversified. The needs here also include supportive services from companies that can be separated. The demand for more benefits, the gradual diversification of service forms → the increased degree of segmentation, and the derivation of new business methods to produce new business forms. Under this combination method, technology is not the protagonist but diversified needs. Promote its differentiation. Demand grafting existing industry sub-categories into the potential new business set; the "combination method two" of technology and economic elements-technology grafting industry sub-categories under the explicit integration of technology. Reflected in the direct application of technology to the service industry, the integration of technology and service industry can directly evolve new business formats. Technology grafts existing industry sub-categories into a set of potential new business formats. As shown in Figure 5.

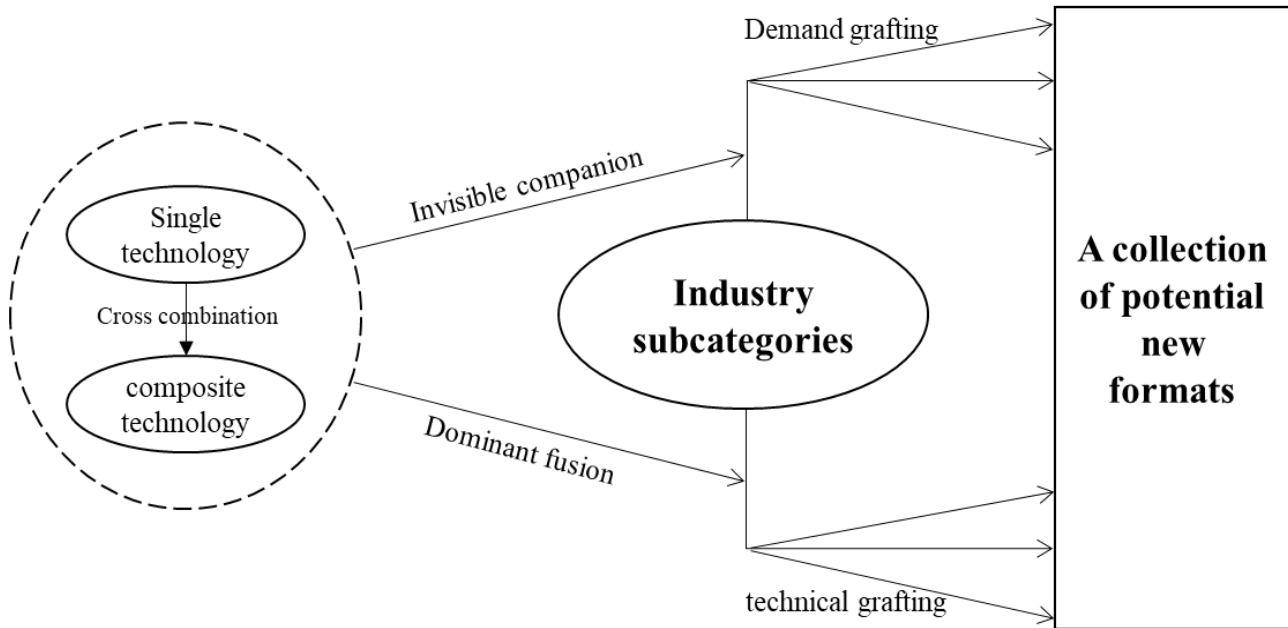


Figure 5. Formation diagram of potential new business forms under the combination of technical and economic elements

4.3. Stage door screening of potential new formats and the final generation of new business formats

Purpose of stage gate screening: Calculate (predict) the probability of survival when potential new business formats are applied. checkpoint1 eliminates the lower-ranked businesses based on policy support indicators, and checkpoint2 eliminates businesses that are behind in willingness to consume. checkpoint3 We will eliminate the business formats that are at the back of market support, and rank the remaining business formats in a weighted index. The ones that rank higher are those that are most likely to become a new reality.

The three indicators of policy support, consumption willingness, and market support are derived from the analysis and induction of many scholars on the qualitative research on the influencing factors of new business formats. As shown in Figure 6.

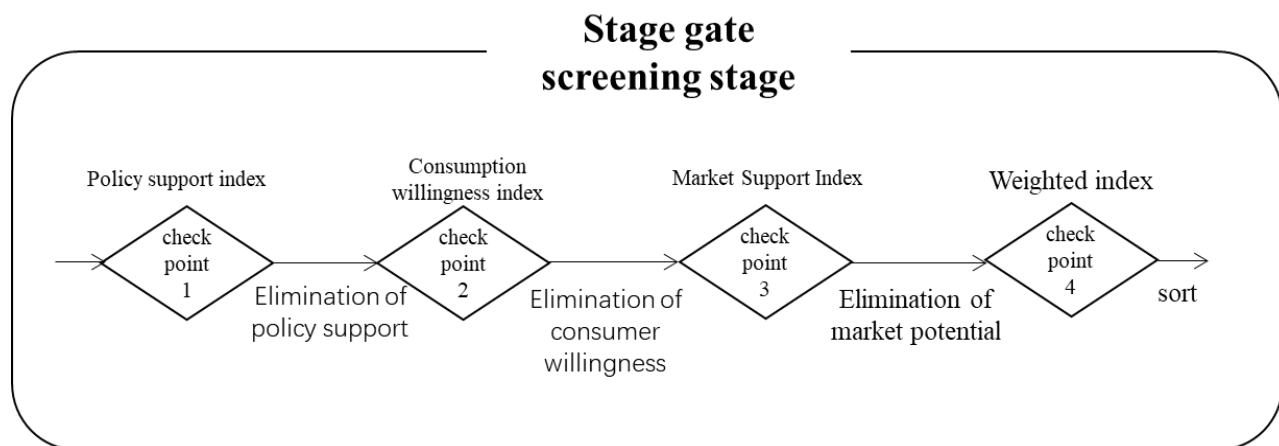


Figure 6. Stage gate screening stage flowchart

Value realization is a long-term process, which can be understood as a period of time when the business format is applied, value is realized, and it truly survives stably and becomes a new real business format.

5. Summary

This article summarizes the core concepts based on previous research and analysis: business types and industry sub-categories, new business types, technical elements and economic elements, combinations and collections of technical and economic elements, and focuses on the relationship between technical elements, economic elements, and the connotation of new business forms and their relationships. On this basis, the stage gate theory and biological evolution theory are used to construct a new format generation model of the combination of technical and economic elements, and the generation process of the new format is explained in detail, including the stage gate screening of the combination of technical and economic elements to form potential new formats and potential new formats, Realistic new format of the final generation of three aspects of content. It shows that the generation of new business forms is the process of "generating" potential new business forms after screening and "becoming" new business forms through the combination of technical elements and economic elements, that is, new business forms are actually generated through high social support and value realization.

References

- [1] Adner Ron, Snow Daniel. Old technology responses to new technology threats: demand heterogeneity and technology retreats[J]. Narnia, 2010,19(5).
- [2] Xu Yangyang. Research on the Formation Mechanism of Entrepreneur Innovation and New Business Forms of Modern Service Industry[D]. Nanjing University of Finance and Economics, 2015.
- [3] Luo Xianzhi. Cultivation of Emerging Business Forms: Factors, Mechanisms and Response Strategies [J]. Journal of Hebei University of Technology (Social Science Edition), 2017,9(04):15-21.
- [4] Cheng Wan, Hongbing Wang. Uncertainty-aware QoS description and selection model for Webservices [C]// IEEE International Conference on Services Computing (SCC 2007). IEEE, 2007: 154-161.
- [5] Ye Z., Mistry S., Bouguettaya A., et al. Long-term QoS-aware cloud service composition using multivariate time series analysis[J]. IEEE Transactions on Services Computing, 2016, 9(3): 382-393.
- [6] Maolin Li. Research on the Sustainable Development Strategy of Forestry Cultural Heritage Sites in Henan Province Based on the Analysis of Big Data[J]. Journal of Physics: Conference Series, 2021, 1744(3).