

Optimization of the mechanisms of the modern franchise system based on the modification of methods of economic development

Оптимизация механизмов работы современной франчайзинговой системы на основе модификации методов экономического развития

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Abstract

The article is devoted to optimizing the working mechanisms of a modern franchise system based on the modification of multicomponent methods of economic equilibrium. In the theoretical part, the formation of an enterprise strategy in the field of franchising is considered, indicating a sequential set of steps necessary for the effective and successful implementation of the ideas included in the franchising project. The development of franchising in Russia is showed and it is noted that it is accompanied by the presence in the new economy of a number of negative factors, in terms of the work of economic mechanisms, as well as legal and social processes. In the research part of the article, the author set the task of modifying the franchise system to establish a certain level of economic equilibrium in it, based on the introduction of certain fines and incentives. In the course of the study, it was found that the franchisor in the franchise system is required to select the amount of fines and incentives in this way that optimal balance is achieved. To solve the problem of optimal equilibrium in a franchise system, it is necessary to bring it to problems that can be solved using linear programming methods. In conclusion, the article discusses the possibility of using franchising tools based on the use of rewards and fines for the successful development and conduct of business.

Keywords: economic balance, franchise system, linear programming, model optimization, system modeling.

Аннотация

Статья посвящена оптимизации механизмов работы современной франчайзинговой системы на основе модификации многокомпонентных методов экономического равновесия. В теоретической части рассматривается формирование стратегии предприятия в сфере франчайзинга, с указанием последовательного набора этапов, необходимых для эффективной и успешной

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реализации замыслов входящих во франчайзинговый проект. Рассматривается развитие франчайзинга в России и отмечается, что оно сопровождается наличием в новой экономике ряда негативных факторов, в части работы экономических механизмов, а также правовых и социальных процессов. В исследовательской части статьи авторами ставится задача провести модификацию франчайзинговой системы для установления в ней определенного уровня экономического равновесия, на основе ввода определенных коэффициентов штрафов и поощрений. В ходе проведенного исследования было установлено, что франчайзер в франчайзинговой системе, обязан подбирать величину штрафов и поощрений таким образом, чтобы достигалось оптимальное равновесие. Для решения задачи оптимального равновесия в франчайзинговой системе необходимо привести ее к задачам, решение которых возможно при использовании методов линейного программирования. В заключение статьи рассматривается возможность применения инструментов франчайзинга на основе использования модели поощрений и штрафов для успешного развития и ведения бизнеса.

Ключевые слова: линейное программирование, оптимизация моделей, системное моделирование, франчайзинговая система, экономическое равновесие.

Introduction

Franchising has been used in the practice of international business for about a hundred years, but it entered to the Russian market in the early 1990s, in connection with the appearance of large foreign companies, many of which successfully work in the service sector. From the point of view of the process, franchising can be considered as one of the ways to deliver various products / services to the final consumer, as well as a definite opportunity to successfully conquer, hold and develop the market through the use of cooperation mechanisms not only of material, but also financial means of various high-tech enterprises. Franchising from the legal side is a certain document, in which it is determined that a legal entity or, for example, an individual entrepreneur, which is the direct distributor of goods / services that are mandatory protected by a trademark, represents certain rights, as a rule that are exclusive in nature associated with the sale in a certain territory of goods or services by another entrepreneur. In exchange, the person who provided these rights has the opportunity to receive a certain percentage of goods / services sold by the entrepreneur, according to the points indicated in the contract, provided that the technological and service processes are not violated or changed. The following types of franchising are distinguished in modern economic literature (Kholin, 2015; Babkin, 2018): franchising in the field of work with goods, of production of goods and of doing business.

In economically developed countries, franchising as one of the effective forms of doing business, based on the principle of interaction between partners, has been established for a long time. Thus, in the USA, the share of companies and enterprises working in the field of franchising, according to leading experts, is about 18.5 million workplaces, which gives about 2.3 trillion dollars of income in the structure of the national economy. Franchising enterprises generate income of 48.56 billion dollars in the national economy of China, with 950 thousand workplaces. According to experts, the spread of national and international brands in the Chinese economy will increase by about 20-25% by the end of 2024.

Literature Review

Recently, there is a trend in Russian business related to the growing interest in the use of franchising as a methodology built on effective, high-quality and rapid expansion of entrepreneurial activity. Franchising seems to be the best way to integrate into foreign and regional sales markets. It allows using the neighborhood of the franchisee to a potential consumer and provides the ability to quite quickly adapt to various changes in the market. The franchisor also receives at its direct disposal highly qualified personnel, including managers in the form of a franchisee. The franchisee has a high personal interest, because he is the owner of the enterprise, therefore, he is more than anyone else interested in revenue growth and expansion of his enterprise, which means that this should favorably affect the performance of the system (Astapov, 2005; Sembieva, Nurtazina, 2016).

The problem of developing a definition of franchising as an organizational and economic mechanism for the development of entrepreneurial activity is significantly complicated by its versatility and the variety of tasks solved with its help. Various authors consider franchising as a tool for the following (Drogobytsky, 2018):

- attracting capital by the trademark owner (it is important to note that there is no concept of “trademark” in Russian law, however, it is widely used in marketing, and therefore in the future we will use it);
- building hybrid enterprises and business virtualization;
- brand transfer;
- building a contractual marketing system;
- organization of mutually beneficial cooperation between large and small enterprises;
- sales outsourcing (for the franchisor) and brand management (for the franchisee), while the relations of sales outsourcing are unregulated and do not require explicit payment by the franchisor;
- refusal to alienate the means of production from the employee;
- formation of a vertically integrated structure.

The strategy of an enterprise in the field of franchising, as a rule, pursues in full measure the achievement of the goals, objectives and principles of effective development of the network, and also helps to determine the necessary sequence of actions that need to be implemented by the company's management in order to fully implement the developed project in the field of franchising. The practical implementation of ideas in a franchise project goes through the following successive stages (Lyudmila, 2017; Dmitriev & Novikov, 2019):

- implementation of work in the field of franchise development planning, which are associated with determining the degree of readiness of an enterprise to conduct business based on a franchise model;
- carrying out work to create a franchise, followed by identification of the most significant parameters included in the developed franchising system, as well as technical work related to the preparation of all necessary legal documentation;
- development of mechanisms for competent promotion of the created franchise to the market;

- calculation of the sale value of the created franchise with the subsequent formation of an integrated franchising network;
- carrying out work aimed at eliminating shortcomings in the developed franchise, through the competent use of accumulated experience related to the opening and operation of enterprises based on franchises.

To develop small and medium-sized businesses, it is necessary to comprehensively support franchising, because a model of doing business in macroeconomic terms will contribute to a qualitative modification of the structure of Gross Domestic Product in Russia, i.e. will shift the emphasis to the emergence at its core of a significant share of small and medium enterprises. Franchising will also allow transforming the macro-social environment, creating new workplaces that will relatively guarantee a stable income, and then to qualitatively modify the social component of the entrepreneur's image (Semicheva, 2016; Dmitriev & Novikov, 2019).

Currently, the share of franchised businesses in the global economy is showing fairly stable and steady growth. According to experts, the number of companies operating in the franchising industry is increasing on average by 1.5-3.5% every year, for example, in the USA there are over 730 000 of such companies. Franchising is developing in Russia slowly, compared to global indicators. Figure 1 shows a graph of the development of franchising in Russia based on the forecast data compiled by experts from the Russian franchising association.

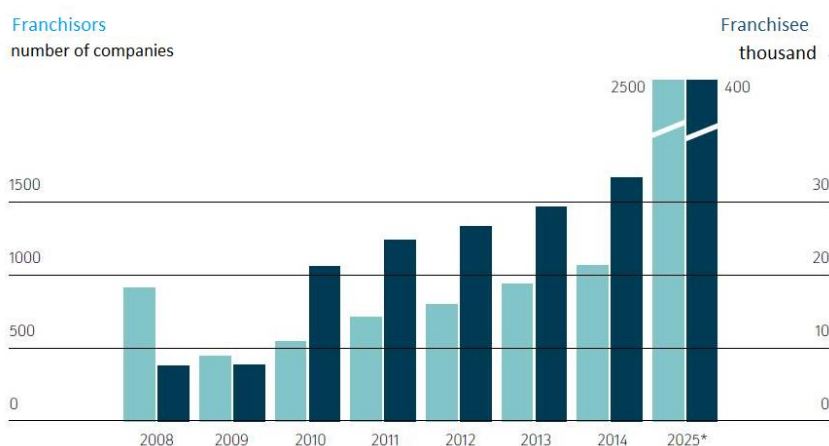


Figure 1. Franchising development in Russia.
(Source: Russian Franchise Association, World Franchise Council (forecast))

These data show a fairly stable growth in the supply / demand market since the beginning of 2010. In the crisis year of 2014 in Russia, already about 1 000 companies are actively working in the field of franchising and more than 30 000 franchisees are already fully operational. Based on the forecast by the end of 2025, we can expect a significant increase in the number of companies, the scope of which is associated with the sale of franchises to about 2 500. The development of franchising in Russia has negative factors in the new economy, in terms of the work of economic mechanisms, legal and social processes. Let us consider in more detail the groups of factors that negatively affect the development of franchising in the Russian business environment (Zemlyanskaya, Mikhailova & Sazonov, 2019; Novikov & Veas Iniesta, 2019):

1. Rather low level of support provided by financial companies operating in the Russian market (VTB Capital (Russian investment bank), Veles Capital Investment Company, Bank Otkritie Financial Corporation, etc.).
2. Inability to obtain the necessary amount of information about the activities of franchisors and franchisees.
3. Unscrupulous activities of a number of franchisees regarding the payment of royalties (cash rewards for the use of franchises, patents, licenses, etc.).
4. Significant flaws in the current laws of the Russian Federation in the field of organizational and legal activities of franchising (legislation does not contain such key concepts as a franchise, franchise agreement, franchising, etc., therefore, all activities are regulated only on the basis of the provisions of Chapter 54 of the Civil Code of the Russian Federation “Commercial concession”).

The franchisor’s intellectual capital, in turn, is not only the brand, know-how, etc. The intellectual capital contributed by the franchisor as a contribution to the assets of the franchise network includes the following (Akulova, Zykova & Golchenko, 2016):

- combination of knowledge, skills, experience, creativity and leadership competencies that create value in the organization. Although, as a rule, the franchisees and their employees occupy the bulk of the franchise network’s participants (i.e., it can be argued that the bulk of the human capital of the network is formed by the franchisee), the franchisor’s human capital is crucial for the success of the entire network as a whole. It depends on the management skills of the franchisor and his employees how effective the formation of the network and the coordination of its work will be;
- components of organizational capital (values, philosophy, structure, teamwork, etc.). These terms are in the further formation of elements that logically build the internal institutional environment of the franchise network;
- components of process capital (set of methods, procedures, processes and systems used in the organization when creating value). Using the process capital of the franchisor gives the franchisee the opportunity to significantly increase work efficiency compared to independent enterprises, reducing transaction costs;
- components of innovative capital (intellectual property and other types of intangible property used to create additional value);
- set of established relationships with contractors in the process of the organization.

Methodology

If the existing franchise system has heterogeneous types and groups of resources, we introduce the necessary conventions (Grisko, 2018):

$x_i(i = \overline{1 \dots n})$ is the number of gross products sold by a high-tech enterprise in the franchise group for a conditional calendar period;

$a_{ij}(i, j = \overline{1 \dots n})$ are the coefficients obtained from the direct use of resources calculated on the basis of the i -th group, necessary to create a single product included in the group j ;

$y_i(i = \overline{1 \dots n})$ is the total volume of products sold of the i -th group falling on the foreign market within the planned period;

$R_k (k = \overline{1 \dots l})$ is the volume attributable to the type of resources provided by the franchisee under the contract, for the purpose of use in production during the planned period;

$r_{ki} (k = \overline{1 \dots l}, j = \overline{1 \dots n})$ are the coefficients attributable to standard costs that were set by the franchisor for the n -th set of resources spent on the production process of one unit of products included in the j -th group during the period.

The plan approved with the franchisor and franchisee, which includes various production and sales aspects, as well as a list of services provided in the franchise system, provided that the management structure used is decentralized, can be written as follows (Grisko, 2018; Ananyin, Zimin, Lugachev, Gimranov & Skriprin, 2018):

$$x_i = \sum_{j=1}^n a_{ij} x_j + y_i, \quad i = \overline{1 \dots n} \quad (1)$$

$$\sum r_{ki} x_j \leq R_k, \quad k = \overline{1 \dots l} \quad (2)$$

It is necessary to determine non-negative values of variables $x_i (i = \overline{1 \dots n})$ at given values a_{ij}, y_i, r_{kj}, R_k , based on the conditions considered in formulas (1) and (2).

In the process of practical work of industries on certain components that are part of the franchise system, as a rule, there are some limited resources R_k in the field of production, i.e. some manufacturing restrictions are imposed, given in formula (2). These manufacturing constraints are significant because the inequality given in formula (2) and the equality in formula (1) may be devoid of a joint solution. Let us explain that in theory there may not exist a production plan at all in which the gross value x_i , subject to the restrictions presented in formula (2) and certain coefficients a_{ij}, r_{kj} able to fully ensure the necessary sales volume of products y_i , which means that the equilibrium of the franchise system in this case is not possible. Therefore, to achieve the necessary balance of the franchise system, provided that it contains additional resources obtained, for example, from sources outside the system, which means that it is necessary to analyze the issue associated with determining the optimal degree of use of these resources. This is necessary in order to qualitatively be able to expand existing production capacities and as a result to ease the set of restrictions presented in formula (2), as well as to be able to fully implement the plan for selling products formed according to the restrictions stated in the franchise. If it is impossible to attract additional resources, then in order to successfully solve the problem of achieving a certain equilibrium level by the franchise system, it is necessary to reduce the problem to the correct determination of the volume of the group x_j (to try to achieve an indicator at which the loss of the franchise system will be the smallest) (Abdullaev, Mylnikov & Vasilieva, 2012; Rasskazova, 2016).

Now we consider the problem of finding the equilibrium indicator in a franchise system, based on the application of the method of rewards and fines.

Here P_i is the planned indicator of profit attributable to the i -th group;

$U_i (U_i \geq 0)$ is the indicator of the level of deviation in the volume of products / services sold per i -th group y_i from the values of the planned profit indicator in the direction of its reduction;

$V_i(V_i \geq 0)$ is the indicator of the level of deviation in the volume of the sold i -th group of products / services of y_i from the values of the planned profit indicator in the direction of its increase;

a_i is the penalty coefficient calculated for each additional unit of negative addition in the implemented i -th group of products / services;

β_i is the incentive coefficient calculated for each additional unit of positive addition in the implemented i -th group of products / services.

It should be noted that encouraging values in the model are accepted as positive values, and penalty values as negative values, therefore:

$$a_i > 0, \beta_i > 0 \quad (3)$$

The task of achieving a certain level of equilibrium on the basis of a reward and penalty system in a franchise system is one of the most qualitative and, of course, effective ways to manage a hierarchical system built on a contractual basis (Sazonov, Mikhailova & Kolosova, 2017). Franchisees, within the framework of the signed agreement, will have to pay the established fines, for example, if the number of goods sold or services rendered is less than planned and in turn receive tangible additional remuneration in case of over fulfillment of planned targets. Consequently, the franchise system, as much as possible, seeks to minimize fines for certain product groups and will make every possible effort to increase its total profit in all areas of production (Chinazirova, 2017; Pinkovetskaia, Balynin & Berezina, 2019).

J_1 is the certain set of numbers of the respective production groups, the products of which, after successful implementation, are reflected in the optimal plan and do not exceed the current planned profit P_i , so, J_1 is the definite set of only those values of indices i that directly provide the inequality:

$$J_1 = \{i/x_i - \sum_{i=1}^n a_{ij}x_i \leq P_i\} \quad (4)$$

where x_i is the certain value of the gross output of the i -th group in the position of the optimal equilibrium indicator of the franchise system.

We use the same principle and introduce the notation J_2 , which will be a certain set of numbers attributable to those manufacturing sectors and services, the implementation of which will allow making a profit that can exceed the planned profit:

$$J_2 = \{i/x_i - \sum_{i=1}^n a_{ij}x_i \geq P_i\} \quad i = \overline{1 \dots n}. \quad (5)$$

With fixed values a_i and β_i the amount of income in the optimal plan from profit can be mathematically written as follows:

$$\sum_{i \in J_1} a_i (P_i - x_i + \sum_{j=1}^n a_{ij}x_j). \quad (6)$$

The size of the promotion recorded in the optimal plan can be written as follows:

$$\sum_{i \in J_2} \beta_i (x_i - x_i + \sum_{j=1}^n a_{ij}x_j - P_i). \quad (7)$$

Consequently, the profit of the franchise system can be written in the form of an expression:

$$\sum_{i \in j_1} a_i (P_i - x_i + \sum_{j=1}^n a_{ij} x_j) - \sum_{i \in j_2} \beta_i (x_i - x_i + \sum_{j=1}^n a_{ij} x_j - P_i). \quad (8)$$

If the values a_i and β_i are fixed, then the franchise system will try to reduce the values of the expression presented in formula (8). This will happen due to the fact that the franchise system bears a certain level of responsibility for various types of fines that may arise due to sales of products below the established norm. The franchise system, which is controlled by the method of rewards and penalties, will actively contribute to the optimal redistribution of franchises between different groups of goods / services (Skripkin, 2017).

Results

As a result of the study, it was concluded that the solution to the problem of the slow development of the finished business system can be carried out, first of all, by improving the legal framework. In particular, to accelerate the development of franchising in Russia, the norms of Chapter 54 of the Civil Code of the Russian Federation and the general provisions of civil law are not enough; it is necessary to develop more detailed legal acts in this area. In addition, it is necessary to conduct training for entrepreneurs who are ready to work in this field, which will allow them to learn the features of concluding a franchising agreement, the basic business schemes in this area and will allow them to also get acquainted with the legal principles of activity. It should be added that it would be advisable to adopt state support programs to attract entrepreneurs to the franchising sphere. The dynamics of the modern world is that the creation and development of a business is impossible without the use of new technologies. The most effective way of organizing a business is to use innovation in various fields of activity together. This is due to the significant one-time costs of starting a business, which in the future will pay off due to the low costs of operating the business.

Conclusions

Now, franchising, of course, can be considered as one of the most promising types of business organization in modern economic conditions, which effectively contributes to solving various problems that most often arise among entrepreneurs, small and medium enterprises. Of course, it should be noted that the acquisition of a franchise and the subsequent expansion of the business through a number of mechanisms laid down in franchising will not work at all if we use its “startups” tool, i.e. when a business is organized from the beginning. As a rule, a franchisor sells franchises only to those companies and enterprises whose activity has existed for a long time and has been successfully developing, and they have some experience in managing franchises. Franchising tools successfully help to develop, for example, retail chains, which in turn enables enterprises to create workplaces that are so needed now, contribute to a qualitative increase in the general culture and significantly strengthen the innovative component of entrepreneurship in the country of presence.

Summing up, we can conclude that now in Russia, franchising is only at the beginning of its development, which is quite far from foreign franchising models due to the scale of their distribution. But it is worth noting that there are great prospects for its further

development, since compared to foreign markets, where there is huge competition in this area, the Russian market with its large population presents enormous opportunities for the development of "domestic franchising".

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