# Discussion

# Game Modeling of the Organization's Management Strategy and Training in Strategic Thinking Based on Game Analogies

Modelování her ve strategii řízení organizace a vzdělávání v oblasti strategického myšlení založené na herních analogiích

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### **Abstract**

The article examines the problems arising in modern economic conditions in organizations of various sectors of the national economy in the implementation of strategically-oriented management systems. Despite the prevalence of such systems, there are great difficulties in their modeling and development of strategic thinking among managers and entrepreneurs.

## Keywords

strategy, modeling, organization, chess, game, management

### Abstrakt

Článek zkoumá problémy vzniklé v moderních ekonomických podmínkách v organizacích různých sektorů národního hospodářství při zavádění strategicky orientovaných systémů řízení. Navzdory převaze takových systémů existují velké obtíže při modelování a rozvoji strategického myšlení mezi manažery a podnikateli.

### Klíčová slova

strategie, modelování, organizace, šachy, hra, řízení

The problem of modeling an organization's management strategy, as well as training entrepreneurs and managers in strategic thinking has been quite acute for at least fifty years. The corresponding query in Google, for example, gives about 530,000 unique results only in Russian (580,000,000 results for a query in English). It is assumed that one of the oldest strategic games – chess – can be of great help here. The lessons she offers to a novice entrepreneur and an experienced strategist are often more important and practical than from any commercial game of those that constantly appear on the market and develop. According to the 13th world champion Garry Kasparov, "chess is

a battlefield... and they cannot be played otherwise. Business also... can be considered a struggle to the end."

Chess is a difficult game, modeled, as well as business, on the basis of military art. Immediately, we note that there is a fundamental difference between chess and business. Chess (like boxing, for example) is a zero-sum game, but in a business both rivals can win. For example, the two leaders of the market of sweet sparkling water are the drivers for other players in this market.

In developed countries, chess receives a lot of support, including state support, in recognition of the enormous benefits that people receive from the game. So, in the world there are huge studies on the effect of chess on Alzheimer's disease, on the influence of chess on the development of children and many others. There is no way to exaggerate the role of chess in the development of artificial intelligence. This article will show how chess can be used as a tool to improve business skills.

In business, as a rule, in the markets there are competitors who plan to seize or increase their share. Many strategies and tactics used in chess are applicable to business situations.

Ruben Anlacan [7] identifies ten skills of a successful businessman that a person acquires with an understanding of strategy in chess:

- 1. The ability to look forward. Only those who can foresee the future a few steps ahead can, on the one hand, show good results in chess, and on the other, show stability and growth in business. "Inaccurate demand forecasting can cost retailers significant amounts of lost profits," said Anders Richter, a leading expert in the retail competence center for SAS, one of the recognized leaders in high-performance analytics and Big Data, in an interview. In addition, given the increasing relevance of innovative technologies for doing business and public administration [5], [6], it is necessary to state a clear connection between chess theory and practice and modern approaches to management.
- 2. The ability to sacrifice. In chess, there are situations when you can give up a piece in order to gain an advantage later. This is similar, for example, to making investment decisions in a business where a businessman risks in the hope of receiving returns in the future [1].
- 3. Good memory. To be able to look to the future while playing chess, you must learn to memorize a large number of potential moves and possible options. Since memory is an important element of thinking [3], it should help improve business decision making.
- 4. Understanding the value of training. Good thorough preparation is the key to success in chess and in business. In chess, it is primarily about analyzing the games of the future opponent. In business, however, preparation can include both market research and business planning as a whole. An increasing role in the success now plays all sorts of staff training.
- 5. Self-organization. In chess tournaments there is a rule "touch move". This means that when a chess player touches a figure, he must make a move for her. If a move is made, it cannot be changed. Even in major tournaments, there were cases when a chess player changed course in the absence of witnesses, however, such chess

players quickly gained a well-known reputation, which ultimately destroys or greatly affects their authority. This also applies to business: when a businessman deceives his clients with false or exaggerated promises, he can get tactical gains and sales growth, but in the future it will be difficult to save his reputation and restore his image. As the founder of the Matsushita group and the PHP Institute, Inc., Konosuke Matsushita [2], wrote, "trust is gained not quickly and not simply. It is created gradually due to selfless efforts and unlimited care. But no matter how long a trust is created, it can be lost in an instant. That is why trust must not be forgotten for a moment."

- 6. Understanding the value of patience. In chess, you need time to place your pieces in the correct position before you can effectively attack; a premature attack will backlash. This is very similar to a business, you must patiently restrain yourself from reckless action until everything is established. First, you need to conduct market research and feasibility studies, and only then risk your capital.
- 7. Anticipation of moves rivals (competitors). When choosing a move, a good chess player calculates possible (probable) answers from his opponent. As Garry Kasparov writes in his book "Chess as a model of life" [8], "the majority of the strongest grandmasters, regardless of time control, base their calculations on strategic planning. When there is a basic strategy, position analysis can be both quick and highly effective. If you play without a plan, then your decisions will be spontaneous. Jumping over the course from one position to other, instead of moving to the main goal, you only solve current tasks. "In essence, this idea of a thinking competitor (opponent) acting against you should be included in the preparation of business plans. In the real world, competitors will respond to your actions, with the interests of stakeholders (stakeholders) varied from full acceptance and cooperation to rejection and sharp opposition.
- 8. Skill to think "off the board". Although chess has strict rules, an experienced player knows how to use his creativity to come up with unexpected moves to defeat an enemy. Chess legend Bobby Fisher shocked everyone with the choice of debut in the match against the world champion Boris Spassky, abandoning the usual move for himself, which for many years brought him success at the highest level matches. The entrepreneur must come up with an innovative strategy, choose unexpected solutions in the field of marketing. Much has been written about this in the famous book by Trout and Rice [4].
- 9. The ability to play by the rules. Chess has rules to follow. Business also has its own rules, the violation of which can lead to severe punishments or even imprisonment.
- 10. The ability to concentrate. Since chess requires hours of full concentration, it is an excellent learning to concentrate your mind. This is an excellent therapy, especially for those whose minds tend to "wander" or get tired too quickly.

Chess has a long history. They have existed for at least a thousand years in its current form. And not for nothing. This is also a game full of rich symbolism. Our ancestors managed to reproduce castles, knights, bishops, kings and queens on the board. Symbolism is something that successful companies actively use today.

Shane [9] draws parallels between chess pieces and displays in business. So, he associates a rook, a fairly powerful figure in chess with military might, as well as the size and strength of a company. Size is not only the number of employees and similar structural indicators, but

also market share, if we are talking about business. Knight (knight; in Russian terminology – steed). Even today, owning horses is a sure sign of rich person. A thousand years ago, having a good horse meant great wealth. A knight or a steed symbolizes financial strength. Bishop (bishop; in Russian terminology – elephant) symbolizes the art of negotiation. An elephant, moving only diagonally in one color, shows strength and weakness at the same time. Politics, negotiation and influence all fall under the kingdom of the bishop.

Summarizing Shane, we can conclude that in business, by analogy with chess, you can use: size and strength, capital and connections. Turning to the systems of strategic management of the organization, we can distinguish:

- the need to maintain pressure. Successful companies direct significant efforts to attack and maintain pressure. And vice versa, the book contains many examples when pure defense did not allow companies to achieve success in business. The defending companies, in fact, act more predictably, in the mode of reactive adaptation, without having a real opportunity to execute their own strategy;
- the need to analyze before making strategic decisions. Moreover, as in chess, it is not the "quantity" of analysis that is fundamental, but its quality.
- the need for accounting and control. By analogy with grandmaster chess, where not being able to take a turn back can cost you a game, strategic miscalculations in business can lead to the destruction of a company. Here we can remember a famous example of Lehman Brothers Holdings, Inc. – The largest US investment bank, which was one of the world's leading financial conglomerates, existed for more than 150 years, but was destroyed in 2008 under the influence of catastrophic strategic management miscalculations. Another example is the Britannica Encyclopedia (Britannica), which was actually destroyed during approximately 2 percent of its life cycle, mainly due to the underestimation of the importance of the emergence of new technologies of informatization of society. In Russia, a good example of an incorrect distribution of resources is Transaero aircompany, which in 2014 took the honorable 17th place in the rating of safe airlines of the world of the German research center JACDEC (Aeroflot took the 35th), and in 2017 was declared bankrupt. One of the main reasons for this was erroneous strategic assessments and decisions made by the company's management, which resulted in the company debts being assessed 144 times as high as all its assets at the time of bankruptcy.

One of the founders of the PayPal payment system, Peter Thiel, who performed the national chess master at a rather early age and was one of the strongest US chess players under the age of 21, speaks about the need to understand the value of things in business: "Every subject in a chess game has specific value. Knowing the value makes it easier to make decisions about game strategy and placement. Similarly, knowing the value of employees and other partners, it may be easier to make business decisions regarding job responsibilities and much more."

As the experience of holding strategic courses and sessions, entrepreneurs often have great difficulty with scenario planning and scenario thinking, in general. A successful chess player must always pay attention not only to the first few moves, but also have a system of plans to counter the actions of opponents. In other words, he should keep in mind various scenarios of events. Similarly, good businessmen should have Plan A, Plan B, and consistent plans according to their situations. So, when launching their cars in the world, Japan faced tough

competition from the United States. They realized that it was only the use of revolutionary innovations that could allow them to win in the competitive struggle in the context of more expensive gasoline, refusing immediate benefits in favor of gaining a share in the US market.

Thus, chess is taught to make decisions in difficult situations under conditions of strong pressure, which can help not to make fatal strategic mistakes in business.

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