

Deciding on the location of the company

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Abstract. The aim of this paper is to focus on a theoretical view of the issue of business localization. Business localization is the subject of research in several disciplines of the global economy. Localization is one of the most important decision-making processes in a company. It is the process of choosing a location for a specific business plan. The characteristics of the company and its surroundings are also directly related to the business plan. Dynamic resp. the rapid development of information and communication technologies opens up new business opportunities.

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1 Introduction

The location of a company is the subject of research into several economic disciplines. Traditional economics examines the decision on geographical location in space mostly quantitatively, in terms of revenues, costs, missed opportunities and the like. It deals with site selection taking into account the various factors influencing this decision. Looking for the optimal solution. In the article we will state how the knowledge from the original theories in this direction gradually expanded to more modern theories. From the traditional solutions to the problem of locating the company in space, we will move in a separate chapter of the article to examine the issue from the perspective of the rapidly evolving behavioral economy. The aim of this separate chapter is not to bring an alternative view and different solutions, but to expand the knowledge of the issue with a new perspective and thus enable the problem to be grasped more comprehensively and explain some specifics of localization decisions that traditional theories do not sufficiently cover.

2 Origin and development of localization theories

Where to place a business? The answer to this question has been trying to find a huge number of economists since the beginning of economic science. Location theory has become an integral part of economic geography, spatial economics, and related sciences. We could use microeconomic theory based on the assumption that a company is trying to maximize its profits and individuals, ie agents of companies, are trying to maximize their benefits, on the basis of which they choose the optimal place for their business activities (Ross 1973). Although optimization of the position decision is a goal, due to the limited rationality of the decision, the optimal solution is rarely the result (Simon 1957).

In the following section, we present how theories of the position of business were formed with the expansion of economic theories and directions. The theories themselves do not determine where we have to do business, it is a decision problem for each particular company and its agents, but they expand the decision-maker's knowledge and lead to the right choice of methods that the company can apply to its specific situation.

The first impulse for the emergence of localization theories can be considered the emergence of spatial economics. Its foundations have already been laid by the economic theories of A. Smith, D. Ricard, K. Marx, N. Danilevsky, the theories of the representatives of the German School of Economics and the first researches in geopolitics. (Alpidovskaya and Popkova 2019) They aimed at the knowledge that economic activity is closely dependent on the chosen location and geographical location is a significant factor influencing the prosperity of the company.

Despite the undeniable merits of the above authors, Johann Heinrich von Thünen is considered to be the father of localization theories with his model of agricultural land use. We can consider the model as the first general theory of position. The fact that it is narrowed down to agricultural activities can be attributed to its origin before the spread of the industrial revolution in Germany. The theory works with a simplified "Cities" model. This is a model example of the use of economic modeling, which, by simplifying the conditions, provides space to explore the essence of:

"Imagine a very large city, in the middle of a fertile plain, which is not crossed by any navigable river or canal. Throughout the lowlands, the soil is cultivable and has the same fertility. Far from the city, the plain turns into uncultivated wilderness, which interrupts all communication between this state and the outside world. There are no other cities on the plain. The central city therefore has to supply the rural areas with all the products produced and in return receives raw materials from the surrounding country. The mines that provide the state with salt and metals are close to the central city, which, as it is the only one, we will simply call the "City" in the future. (Thünen 2011)

Competition between farmers will bring the price of rent and distribution costs into balance thanks to the invisible hand of the market, and so-called cultivation circles will

emerge, where crops with higher yields per unit are produced in a cultivation circle with higher rents closer to the city. Gradually, something like a circular shape map is created, which defines where each crop should be grown.

According to Samuelson (1983), Thünen's work not only created marginalism and a managerial economy, but also developed one of the first models of general equilibrium in terms of realistic econometric parameters. Specifically, Samuelson argues that Thünen's model contains all the elements of some well-known economic concepts:

1. Ricardo - Torrens' theory of comparative advantage.
2. Malthus - West - Ricardo theory of rent.
3. Heckscher - Ohlin and Stolper - Samuelson theory of pricing of factors and goods.
4. Input-output system authors: Marx - Dmitriev - Leontief - Sraffa.

Samuelson states that "*Thünen belongs to the Pantheon with Leon Walras, John Stuart Mill and Adam Smith. Thünen's work is like a magnificent building of general equilibrium, containing all the basic elements of modern competition theory.*" (Samuelson 1983)

Thünen (1826), Launhardt (1882) and Marshall (1886) were the first to emphasize the importance of locating a business. Their theories were tied to agricultural production. Their theories worked with variables such as distance from city or rent. Many theories from their research are also taken over by today's theories, which also work with various variables that affect the location of the company. Today we call these variables factors. Weber (1909) was the first to introduce this concept to economics. In the 20th century, localization theories from agricultural production began to focus on industrial production. The first theory, which also dealt with the location of services and administration, was presented by W. Christaller in 1933, directly following Thünen's research.

Most of the authors of the economic geography of the post-war period are based on Thünen's findings, which he expands, packs up or tries to replace part of his theory with his own research. In order to make the most optimal decision on the location of a particular business, it is appropriate for the decision-maker to know the important theories of economic geography, which explain the behavior of market entities. The authors looked at the issue of business location from different perspectives. If the decision-maker realizes that it is necessary to look at the problem of placement from different angles, combining optimal solutions from different perspectives, involving creative thinking and knowledge provided by us, he can make the decision to locate the business better than its competitors.

2.1 Current understanding of business location

The authors of geographical economics, presented in the first part, conditioned the emergence of newer theories of business location, introduced key concepts and explained the basics of simplified models. The vast majority of theories of localization of a company deal with the term factor and based on the analysis of the action of a number of factors, the company chooses the place where it will carry out its economic activities.

Real spatial systems function as complexes of elements and components, interconnected by spatial processes. Localization factors express the requirements for the characteristics of the territory from the entity that is interested in the location of its element, its investment in the territory. In this case, it is a specific demand for territorial elements, phenomena or properties. Localization factors therefore fundamentally influence our localization behavior and decision. (Maier and Todtling 1997) There are therefore a large number of factors that influence the choice of a specific place of business. It always depends on the specific decision-making situation which of these production factors the company will prefer. (Hudec et al. 2009)

Currie states that *"Factors that affect the location of economic activities vary. Businesses or commercial companies often consider the pros and cons and multiple locations before deciding where to build."* (Cambers and Currie 1999)

The price factor must be spatially differentiated. Only when both conditions are met will different conditions arise for the company in different locations and it must take this into account when making decisions. " (Belajová and Fáziková 2002)

Accordingly, the factors are specific to each company. Several authors have tried to establish a list of relevant factors. If we have a list of relevant factors for our company, from the point of view of business decision-making, the choice of a specific location is a common decision-making task ideally in conditions of certainty, but mostly uncertainty or risk, depending on the amount and quality of available information. For such a decision we can use any of the known methods of decision analysis such as Saaty AHP, pairwise comparison, nominal, ordinal and cardinal scales and others. The problem is not based on the available information to evaluate one of the methods of business decision-making a suitable location. The problem is to choose the right set of factors and assign them a weight. Due to the weight when making a decision, factors with a higher weight influence the final decision more than factors with a lower weight.

Some authors categorize factors into groups. The categorization of factors, in addition to simplifying the orientation in a large number of influences on the company, allows to assess the significance of factors in complex internally interconnected groups.

In the spatial and regional economy, localization factors are divided as follows (Belajová and Fáziková 2005):

Soil and land are immobile factor and space act strongly differentiating. It goes e.g. o land prices, land with a certain quality to their access, etc.

Natural resources are defined as predominantly displaceable and their occurrence in space can also be highly concentrated.

Capital is highly concentrated and its mobility depends on the species. Financial capital is highly mobile, but this cannot be said of in-kind capital. Once invested, it is immobile, as the cost of moving it is high.

The workforce is spatially highly differentiated in terms of availability, quality and price. Daily attendance is highly mobile, with population migration between regions being very limited.

Technical progress / innovation is defined as spatially differentiated, which means that information on new technology and forms is mobile, while its implementation depends on the demand of companies.

According to Maier and Tödting, an important criterion for classifying localization factors is the company's relationship with the environment. According to this criterion, localization factors are divided as follows: (Maier and Tödting 1997)

availability and access to inputs, e.g. natural resources, labor, availability of public services, etc. Not only the presence of localization factors is important, but also their quantity, price and quality,

access to relevant markets and customers on the output side,

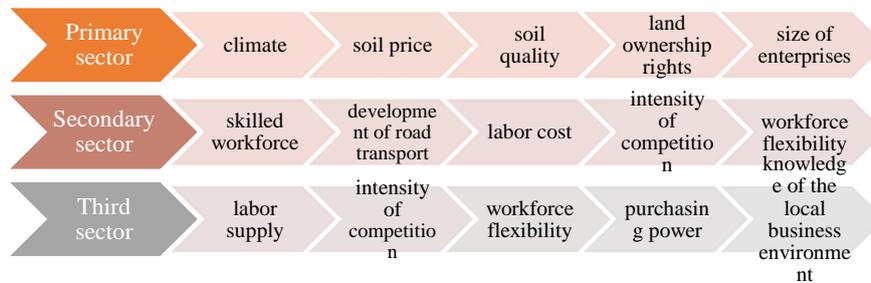
depends on market potential, transport costs, waste treatment options, information and contacts and the location of competitors,

factors active on the input and output side - these are technical and social infrastructure and agglomeration benefits.

The significance of business location factors in Slovakia was empirically investigated in the studies of M. Cifranič and Gubáňová and Hanáčková. (Cifranič 2016; Gubáňová and Hanáčková 2014) The M. Cifranič survey was a questionnaire survey of managers of 5 selected companies. The questions in the questionnaire were constructed in the form of open-ended questions. 24 localization factors were divided into 6 categories, namely work, market, land, infrastructure, environment and legal social and economic conditions. Managers of selected companies were asked to assess the significance of localization factors on the provided point scale from level 0 (no significance) to level 4 (main factor). The main determinants of the allocation of these companies were labor flexibility and related costs, the organization of the distribution network, the size of the land, local standards for the discharge of hazardous substances and the economic and social stability of the region. On the other hand, the least important factors were the supply of disabled workers, climatic conditions and the level of institutions and services to support regional development. (Cifranič 2016)

In the survey of Gubáňová and Hanáčková, the importance of factors from the point of view of individual sectors was examined (Figure 1). From the survey we can see how the importance of sectors changes depending on the sector in which companies operate. (Gubáňová and Hanáčková 2014)

This follows from the nature of individual sectors, the differences in the inputs they consume and the outputs produced by companies, the target markets where they trade, the demands on individual components of capital and the like.

Figure 1 - Significance of localization factors

Source: GUBÁŇOVÁ, Monika and Denisa HANÁČKOVÁ, 2014. *The importance of localization factors for the allocation of companies in space. 2014, vol. 6, no. 3, p. 9.*

3 Results of the work and discussion

Each business must choose its location. The decision on the position may be the result of a more or less formal procedure. There is a consensus among scientists that the decision to locate a company is important for the economic performance of the entity. At the same time, we can find in the literature that subjective factors (such as limited rationality) play a significant role in site selection. (Jones and Woods 2002) R. Domański outlines that decision-makers usually have limited knowledge and information and in many cases the management of a company does not behave like a homo economicus. Sometimes it has limited resp. biased information and its decisions are thus based on incomplete information still assessed in a subjective way. If the situation is complicated, the decision-maker must simplify it with intuitive rules. It does not try to achieve an optimal result, but a satisfactory one. (Domanski 2004)

According to the classical, neoclassical understanding of localization theories, the decision made by the decision-making body is the optimal choice, while heterodox approaches, such as behavioral economics, argue that an optimal decision is impossible.

The mainstream of economic theorists assumes that decision-makers are homo economicus, a person who is perfectly informed, able, and willing to make complex calculations without behavior prone to psychological prejudices. Behavioral economics takes into account a number of assumptions about human nature: limited (imperfect) knowledge, limited ability to process information, and a tendency to look for the first satisfactory result rather than optimal. In practice, this means that usually the company chooses the first place that meets its minimum criteria, the so-called level of aspiration and will not even explore other alternatives. Simon pointed out that people can use the so-called heuristics, which represent a simplification of the decision in a complicated situation, which heuristics are not specified. (Simon and Newell 1958)

This gap was filled by D. Kahneman and A. Tversky (Tversky and Kahneman 1974), who formulated three famous heuristics: accessibility, representativeness, and anchoring with adaptation. Accessibility in psychology is the ease with which a certain idea can be obtained. For example, people overestimate the seriousness of dramatic

mediated events. If they see, for example, a tornado, they are much more likely to die than death in a home accident falling down the stairs. Objectively, the probability of death when falling down stairs is incomparably higher. We can assume a similar "use" of heuristics when deciding on the location of the company. For example, it may assess the possibility of the arrival of cheap labor on the basis of mediated dramatic information on migration, and in fact this phenomenon may have a much smaller impact on labor costs than non-dramatized media lifelong learning programs in the media.

He later used the theory of limited rationality in his localization model A. The behavioral matrix he formulated linked the availability of information, the investor's ability to process information and the "profitability" of the chosen place of business. The general rule is that the more information (or ability to process information) a decision maker has, the more lucrative a person chooses, *caeteris paribus*.

Due to the breadth of the object of research, which in our paper represents the theoretical framework of decision-making on the location of the company, it was not possible to present the topic completely exhaustively. The literature offers a myriad of different approaches to the problem in the nearly 3rd century since the emergence of early theories. Through a paper with domestic and foreign literature, we gained relevant knowledge that led to a clarification of the current situation. The added value of the work lies in the broadening of the perspective, revealing to the reader a view unknown to him of a familiar issue.

The paper can serve as a basis for further professional discussion on the topic of business localization. Behavioral economics is still a young scientific discipline and offers a wide space for the application of empirical research methods and the acquisition of new knowledge usable in managerial practice. We wanted to point out the fact that the topic of business localization, which almost privately belongs to the study of traditional, classical and neoclassical economic schools, can use the knowledge of behavioral economics and descriptive approaches to decision-making to expand their knowledge.

We think that research, which subsided slightly in the 1980s, in the context of today, when the economics of "soft" factors, psychology or neuroscience come to the fore, will be renewed in the foreseeable future and will be a source of new knowledge not only in business localization but economy as such. This is evidenced by several studies carried out in recent decades, the authors of which have earned the recognition of the professional public and the world, and whose work has been awarded, among other prestigious awards, the Nobel Prize.

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