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## New Silk Road – a Weak or a Strong Signal?

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### Abstract

On the one hand, the instability of the environment makes it necessary for the organizations to possess the ability to detect weak signals, and on the other, to prepare for the signals generated by these changes. The article attempts to examine the proposed project, i.e. the New Silk Road (NSR), as a weak signal, determining the future development of the region – Podlaskie Province. The article indicated the assumptions of construction of the regional development strategy aimed at breaking down barriers relating to weak signals. In particular, three categories of barriers defined by Ansoff as filters were included: surveillance filter, mentality filter and the power filter.

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### 1. Introduction

The dynamics and complexity of the environment, in which businesses operate, on the one hand, requires constant environmental scanning, and on the other, adapting long-term operation strategies to the occurring changes. For organizations, scanning the environment should be the source of seeking long-term competitive advantage. Analysis of the so-called weak signals is increasingly becoming one of the most important elements of the business environment scanning process. According to the precursor of the concept of weak signals – Ansoff, weak signals are signs of possible changes in the future [2]. They are characterized by high uncertainty of occurrence in the future, and in the event of the occurrence of the phenomenon, by a large scale of effects.

Instability of the environment makes it necessary for the organizations, on the one hand, to possess the ability to detect weak signals, and on the other, to prepare for the signals generated by these changes. Events defined as weak

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signals can be diverse: from the phenomena of economic, legal, environmental nature, to the events of technological, economic nature. Also, the potential impact caused by the occurrence of the analysed event can be economic, social or environmental in nature. Taking into account the source of weak signals, internal and external weak signals can be distinguished. The source of the weak internal signals is the analysed unit, which, due to the scale of the operation, may be an organization, region or the state. At the unit level, weak signals may arise from the existing resources (e.g. quantitative or qualitative deficiencies of human resources) or the realised processes (e.g. technological). Sources of weak external signals should be sought in the unit's environment – closer environment, e.g. competition, more distant environment e.g. change in the legal requirements.

The article attempts to examine the proposed project, i.e. the New Silk Road, as a weak signal, determining the future development of the region – Podlaskie Province. The author has attempted to answer the following questions:

- Whether, taking into account the probability of occurrence and severity of the consequences caused by it, the New Silk Road initiative can be considered a weak signal?
- How to manage the region in the face of such a weak signal as the announcement of the construction of the NSR?

New Silk Road, is a term that was used as the name of a trade route linking China with Europe and the Middle East functioning since the third century BC to the seventeenth century AD. The Silk Road has always been a catalyst for development, allowing many countries, nationalities exchange of goods, the achievements of culture, history and religion between China and the West [15]. The Silk Road has always been a symbol of connecting distant and different cultures; made the elements of social and economic life so distant and exotic (Asia) became closer and less strange for the societies of other continents of the world. In the context of the proposal of “reconstruction” of the New Silk Road, it is important to note that each city/region located on his way became a major trade, economic and cultural centre.

The speech on September 7, 2013 at the University of Nazarbayev in Astana (Kazakhstan) of the President of the Republic of China, Xi Jinping, who first pointed out the need for joint development of a New Silk Road Economic Belt is deemed as the formal inauguration of measures aimed at rebuilding the Silk Road. The announcement by the President of China concerning the Silk Road gains in intercontinental significance considering the fact that the area covered by the trail is inhabited by 4 billion people, and the estimated budget of the project is more than \$ 40 billion, derived in part from the Asian Infrastructure Investment Bank – AIIB, and the New Development Bank BRICS [5]. Although the detailed course of the Silk Road is not yet known, it is known that it will consist of a series of transport corridors: terrestrial and aquatic. Taking into account the position of Poland, the vast majority of variants of the NSR courses assumes its route through the north-eastern Poland. This initiative seems particularly interesting and valuable for Podlaskie Province, neighbouring Belarus, and thus is a social, economic and scientific challenge.

The interest in both the scientific and economic Silk Road is manifested by major global organizations and individual countries. Currently, more than 60 countries and international organizations shall be included in the initiative to build the Silk Road, creating potential for their further development. Over such a vast area, the premise for the construction of the Silk Road is the intensification of regional cooperation. The Commercial Silk Route will enable China and the countries situated along the path for economic development and creation of a platform supporting the processes of globalization and economic integration [6].

## **2. Weak signal theory**

The terminological diversity of meaning of the term weak signal allows specifying the main characteristics of the phenomenon. In all definitions of the term weak signal, the authors emphasize such features as high uncertainty of the phenomenon's existence, a cause and effect link between the currently weakly observable phenomenon, and the anticipated significant effects in the future, lack of transparency, lack of hard facts and evidence (Table 1).

Table 1. Definition of weak signal.

Authors	Weak signal definition
Magruk A. (2010)	Weak signals are early, vague signs of impending major events, changes that will affect, in a strictly indefinite future, the trajectory of development of the system
Ansoff H.I. (1975)	Symptoms of possible change in the future
Coffman B.S. (1997)	The idea or trend that will affect how this business is done, how to do business, or in what environment
Holopainen M., Toivonen M. (2012)	Weak signals can be interpreted, on the one hand, as a sign, and on the other as a phenomenon in the early stages of development
Godet M. (1994)	Factor changes slightly noticeable now, but that could be a strong trend in the future
Saritas O., Smith J.E. (2011)	It is assuming a change, a combination of logic and imagination. This is the first sign of the coming changes
Hiltunen E. (2010)	Weak signal is the first sign of emerging phenomena/events

Source: [2–4, 12, 13, 16, 22, 23].

In practice, the ability to grasp the difference between the meaningless noise, a weak signal, a trend, and a mega trend is important. Taking into account two criteria: probability if phenomenon occurs and importance of the phenomenon if it eventually occurs, weak signals compared to other phenomena are characterized by low probability and relative importance/impact in the event of occurrence of the phenomenon (Fig. 1).

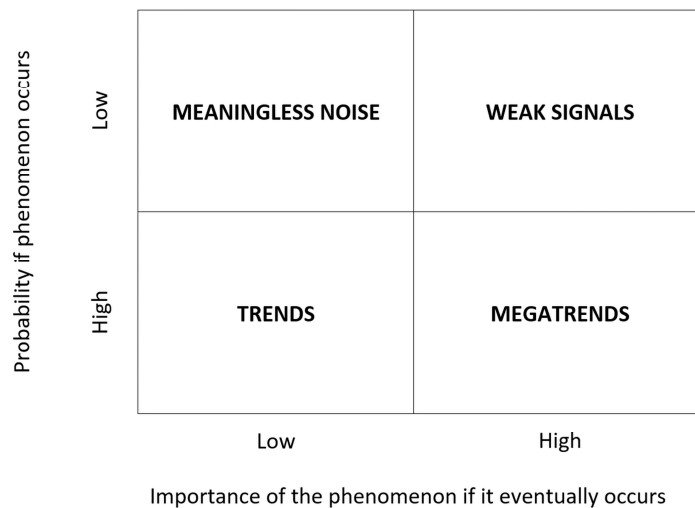


Fig. 1. Differences between different future phenomena.

Source: Author's based on [13].

In the initial period of the phenomenon referred to as a weak signal, the number of people noticing the phenomenon is small. The information is not disseminated; the signs are weak, invisible, and immeasurable. As the situation evolves, and the information on the phenomenon is gathered, the probability of its occurrence increases, and the more visible and measurable nature of the phenomenon allows organizations to implement their plans and strategies. These types of signals are described by Ansoff as strong signals, in contrast to the weak signals [1], and the basic criterion for differentiating is a higher probability of the phenomena/events' occurrence.

According to Coffman weak signals are becoming more visible, when a series of consecutive weak signals appears, as an announcement of appearing future [4]. Often one weak signal does not reveal the future to us. Only if several weak signals indicate the development of certain events in the future, the probability of the future coming into

existence increases and becomes more real. Anticipating the future, one need to remember that it can appear in several dimensions/images, therefore, several alternative options/scenarios for the future should be imagined.

According to Ansoff weak signals should be used by organizations to take proactive, pre-emptive actions. The faster the organization reacts to weak signals from the environment the more likely it is to use the occurring opportunities, at the same time at a higher level of risk [3]. Weak signals should be a source of energy for the organization, causing disorder and commotion, especially in a situation of being used to the existing conditions [14]. Weak signals are often a tool used in the study of foresight, whose aim is to create the future [8–11], through actions undertaken today. Scenario methods used in foresight research often refer to the theory of weak signals and wild cards [17–20, 24].

One of the essential characteristics of weak signals is, in addition to anticipating the future, stimulating innovation processes, often disrupting current mental models. Weak signals can be both a prerequisite for the development of new products and entering new markets.

### 3. Features of New Silk Road announcement as a strong signal

Taking into account the adopted criteria of the division of weak signals into internal and external ones, the course of the NSR through the territory of the Podlaskie Province should be regarded as an external phenomenon having its source in the foreign policy of Chinese and Polish governments. The regional authorities, on the one hand, by analysing the dynamics of the phenomenon, manifested among other things in the scale and type of initiatives of a political, legal, social and economic nature undertaken by the Polish government, seeing the potential to benefit, should engage in all kinds of initiatives making the existence of the project more probable, and in the case of Podlaskie Province, aim at the NSR or its branches crossing the territory of the Province.

Probability of ensuring the NSR running through the territory of the Podlaskie Province is the result of a growing awareness of the regional authorities and its inhabitants, and undertaking activities in this field. The growing interest in the analysed project is indicated by the following events in the region:

- **of economic nature:**

- the President of Białystok signing a letter of intent on cooperation with Huang Ke, secretary of the committee of the Communist Party of China of the Chongzu town
- participation of the President of Białystok in the economic mission to China in 2014
- numerous visits by representatives of the Chinese government and business representatives from China in the region, economic missions
- appointment in 2016 by the Speaker of Region of an advisory team for development of assumptions of infrastructure investments
- organization of a problem session on the New Silk Road – Chinese idea with a Polish theme during the III Eastern Economic Congress in 2016
- participation of the Marshal of Podlaskie Province, along with representatives of the Białystok University of Technology in the IV Economic Forum Poland-China, which took place on June 20, 2016

- **of educational nature:**

- organization in 2015 and 2016 of the Summer School of Logistics by the Faculty of Management at Białystok University of Technology and Zhejiang University Ningbo Institute of Technology (ZJUNIT)
- agreement between the Białystok University of Technology and the University of Białystok on the establishment of the Confucius Institute, which would aim, inter alia, at the promotion of Chinese language
- establishing cooperation between the Association Europartner in Białystok and the Institute of Confucius in Beijing in order to organise joint courses of Chinese language
- cooperation of II LO with Ningbo School of Foreign Affairs in Ningbo, under which the exchange of students is organised
- increasingly common learning of Chinese language in secondary schools (LO II, III LO), universities (University of Białystok) and language schools

- **of scientific nature:**

- creation by the Białystok University of Technology and Zhejiang University Ningbo Institute of Technology (ZJUNIT) of the International China and Central-Eastern Europe Institute of Logistics and Service Science
- cooperation agreement between the University of Białystok and Zhejiang University Ningbo Institute of Technology (ZJUNIT)
- exchange of visiting professors between Białystok University of Technology and Zhejiang University Ningbo Institute of Technology (ZJUNIT)
- honorary decorations and titles awarded to the representatives of the two countries, in 2015, Professor Joanicjusz Nazarko, Dean of the Faculty of Management at Białystok University of Technology has been awarded the title of Honorary Professor of Zhejiang University Ningbo Institute of Technology in China, and in 2016 Professor Hao Wang received a similar title.

The number of representatives of business, science world received by the regional authorities proves interest in the New Silk Road initiative is growing [21]. Knowledge about China becomes common knowledge and for many people it is the prospect of their further development. Taking into account the dynamics and scale of the undertaken projects it needs to be recognised that the likelihood of the NSR running through the territory of the Podlaskie Province becomes real, which demonstrates that the NSR is no longer a *weak signal*, but the *strong signal*.

The second feature of the analysed phenomenon is the predicted scale of effects in a situation when the NSR runs through the territory of the Podlaskie Province. These effects will be economic, social, and environmental in nature. Creating the future course of the NSR, even today decision-making processes should be focused in such a manner as to minimize possible negative environmental effects and maximize the social and economic benefits. The undeniable, positive effects of the possible course of the NSR through the area of the Podlaskie Province include:

- creating the conditions for the Podlaskie Province to become a logistics hub and the transported goods distribution centre
- influx of Chinese capital/investments, not only infrastructural
- indirect benefits associated with the possibility of easier transport to other markets such as: Mongolia and the ASEAN states, e.g.: Indonesia, Malaysia (Polish agricultural products/food are getting there, but now the barrier is transportation and the distance)
- the possibility (thanks to the strength of China's impact) of impacting the transport of goods to Russia and transit through Russia
- development of transport infrastructure, including the construction of dry ports, logistics centres, airports that provide customs clearance and warehousing services
- creating better conditions for the export of products from the Province to China, mainly dairy products, fruits and vegetables, machinery and equipment for the agricultural industry
- development of new business networks, essential for the development of small and medium-sized enterprises,
- exchange of technological ideas and scientific achievements, being the result of cooperation between enterprises and research units from Poland and China, and other countries located on the NSR
- initiating innovative processes by entrepreneurs in connection with the emergence of new markets in the east
- exchange of ideas, achievements of culture and art
- implementation of the objectives of the strategy of the Podlaskie Province development in the context of using the position of the Podlaskie region as the “Gateway to the East”.

#### 4. Regional strategy for the NSR

Both the process of anticipating the future and stimulating innovation require continuous acquisition of data and information from the environment about weak signals, verification of business models and active pursuit of the adopted strategy. Process-based approach to the management of weak signals often is the item of interference that Ansoff presented in the form of filters. He distinguished three categories of filters (interference/obstacles):

- Surveillance filter – at the stage of observing signals
- Mentality filter – in relation to discontinuous change, traditional business models that block access to new data are used
- Power filter – concerns decision-making. Although weak signals can be perceived and understood, often intentionally or not, no decisions are made [2, 3].

Also at the regional level, building a strategy aimed at strong signal from the environment, it is necessary to overcome obstacles/interference in the form of filters (Fig. 2).

The first of the obstacles, identified by Ansoff, applies to capturing the weak signals. Any tools for scanning the environment, which should ensure the collection of data and information contribute to the development of awareness and understanding of the studied phenomena. In the context of the analysed phenomenon such as the NSR, it seems that a basic level of the local authorities', communities', business' and the worlds of science awareness of the necessity and the need to get involved and to take initiatives, which consequently will lead to the emergence of the Podlaskie Voivodeship on the NSR, was achieved. However, there is still a need for discussion on this subject, whose main objective is to identify prospects for development of the Podlaskie Province in the NSR. One of the ways of creating the society's awareness is to seek answers to the question: How will the development of the Podlaskie Province proceed in the case when the region is not at the NSR?

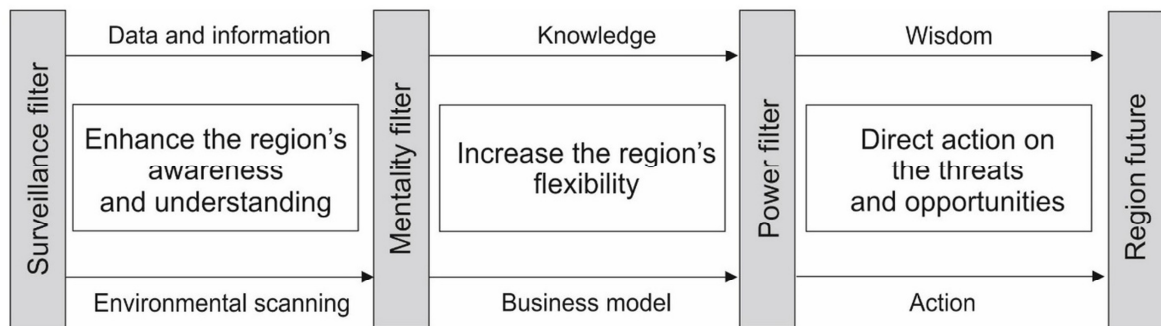


Fig. 2. Process approach to the management of weak signals including the Ansoff's theory of filters in the context of regional development.

Source: Author's based on [2, 3].

As a result of the environment scanning processes, being the source of data and information, the knowledge constituting the basis of decision-making processes of regional authorities, representatives of business and scientific community should be created. In this context, it is necessary to reformulate the business model of the Podlaskie Province development and focus on the development of the region to "the East", creating conditions for trade, infrastructure development, exchange of knowledge and technology. Only the common and integrated strategy, which creates conditions for more flexible current activities, can break down the barriers of the mentality filter. Finally, good examples of activities aimed at developing the NSR concept, examples of cooperation and achieved benefits by Polish and Chinese partners in various areas of activity (trade, research, mobility of students) will contribute to overcoming the barriers named by Ansoff the Power filter.

#### 4. Conclusion

The development of each region, and in particular of the poor, underdeveloped regions, must use the possessed competitive advantages. With regard to the Podlaskie Province, undoubtedly, the advantage is the position of the region in the vicinity of the eastern border of the European Union. The concept of the New Silk Road, as part of China's foreign policy should be regarded as a strong signal, initiating the future development of the region. The process of building public awareness in the region should be replaced by a process of changing business models included in the regional development strategy and the implementation of specific projects, firstly investments. To

what extent the Podlaskie Province will benefit from the opportunity, the position on the New Silk Road, mainly depends on the decision-makers, creating the policy of the region development, but also supporting the bottom-up initiatives.

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