

From the Editorial Board

We are pleased to present the 2023 issue of “Law and Business”. This issue strives to draw attention to problems related to business innovation and entrepreneurship engineering.

Innovation is commonly defined as the practical implementation of ideas that result in new goods or services or an improvement in goods or services already on offer. The ISO TC 279 point included in the standard ISO 56000:2020 defines innovation as “a new or changed entity, realizing or redistributing value” (<https://www.iso.org/obp/ui/#iso:std:iso:56000:ed-1:v1:en:term:3.1.1>). There are many definitions of the concept, but a common element in each definition is the focus on novelty, improvement and the spread of ideas or technologies. What's more, the technical innovations with the greatest value often manifest themselves via the engineering process, particularly when the problem being solved is of a technical or scientific nature. Thus, engineering plays a significant role in running a business. As a process, engineering means the creative application of science, mathematical methods and empirical evidence to innovation, design, construction and other actions undertaken for the benefit of humanity. On the other hand, entrepreneurship is the method of designing, launching and running a new business. It is the capacity and willingness to develop, organize and manage a business venture along and the fortitude to take on the risks necessary to recognize the commercial potential of the innovation and organize the capital, talent and other resources that will turn an innovation into a commercially viable product. In particular, engineering entrepreneurship is the process of harnessing the business opportunities in engineering and turning them into commercially viable innovations.

In light of the above, it seems reasonable to wonder about the current challenges in the development of innovation, including legislation, as well as the usefulness and methods of implementing entrepreneurial thinking among engineers and other creators of innovation.

Below, we present the positions of practitioners pointing out the need to create future scenarios as a tool for administering the development of industries, to identify operational threats and to seek instruments for their minimization. The unquestionable role of innovation in the functioning of modern business is best seen from the perspective of risk management and scenario building. Most often, scenarios mark a response to diagnosed problems or their expected occurrence.

“Scenarios of the Future” as tools for decision-making and company management - experiences and expectations.

“Scenarios of the Future” is based on an interdisciplinary study of the possible course of events in both the near and distant future. It analyses most of the identified variables that may affect the functioning of a company in the narrower or broader social, economic, political and legal environments. Aspects such as cultural, attitudinal and religious changes are also examined if they are likely to affect the operation of the enterprise. Geopolitical processes, technological progress and change or fluctuation in demand and production structures resulting from - among other things - changes in access to raw materials or technologies are also taken into account.

This type of study is a helpful tool for strategy planning in any enterprise, regardless of the industry. Of course, the variables examined in the scenarios are defined according to the specific characteristics of a company under analysis and the environment in which it operates.

The outcome of the “scenarios of the future” is the identification of new opportunities and directions of development. These could result from, for example, new technologies, geopolitical, economic or social changes or the identification of threats arising from these changes.

Knowing the possible directions of change in the socio-economic environment (which cannot always be regarded in terms of development), as well as other variables and the opportunities and threats connected, the company and its management are equipped to build (or adjust) its development strategy both in the short and longer term.

Acting on the financial market, TUW PZUW, by its very function, is an element that ensures, on the one hand, the continuity of production processes (by paying out compensation for damage that occurs it allows enterprises to resume/continue production), and, on the other hand, it takes over the risks from enterprises related to the conduct of business activities, thus making it unnecessary for the enterprise to freeze financial resources to cover possible damage on its own, which often falls beyond the financial capacity of the enterprise. At the macroeconomic level, it can be argued that insurance activity helps maintain the potential and infrastructure of a state's economy, which contributes to economic development. Today's modern market economies cannot function without the institution of insurance.

Thus, it is in the direct interest of TUW PZUW (as well as any other insurance company) to identify risks both on its own side and, very importantly, on the side of its current and potential customers.

Ultimately, the risks of the insurer's customers become the risks of the insurer. "Scenarios of the future" allow risks to be identified, enabling the development of the insurance company's strategy, appropriately adapted to the anticipated variants of future events. This applies, for example, to approaches to risk management or product range plans. New technologies are being developed that mitigate some risks and generate opportunities for growth, but at the same time, they evoke new risks, often poorly recognised.

Insurance companies should identify the risks of their own and their customers' businesses well and early. As a holistic analysis of probable eventualities, "Scenarios of the future" appear to be an excellent tool for insurers. By identifying risks arising from the narrower and wider environment and from local and global areas and conditions, they provide insurance company managers with the opportunity to pursue an effective business development policy.

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Developing scenarios for the future is, to a greater or lesser extent, part and parcel of the planning process. It is a regular component of planning short- and long-term business activities. Budget planning, development, strategy, and so on cannot take place without an analysis of possible contingencies in the immediate operating environment of the business, as well as in its macroeconomic surroundings. Obviously, the process differs significantly from small entities to large companies of strategic importance for national interests.

It is worth emphasising that, in recent years, the approach to planning and scenario-building has changed dramatically. Due to a sharp acceleration in the pace of development, progressive digitalisation, industrialisation and automation of industry and technology, social and political changes associated with globalisation are advancing at a geometric pace. Whereas, a dozen or so decades ago, the construction of long-term development scenarios was largely based on distinguishing between the pace of development (optimistic and pessimistic scenarios) to the exclusion of side factors, which by and large allowed for optimal development planning, the situation has gradually changed since the beginning of the 21st century. Over the past two decades, in order to create forecasts that come close to reality, it has been necessary to multiply variables and influence factors from year to year. By convention, the attacks on the World Trade Center can be regarded as a turning point. Since then, the policy of stability and predictability, which had been built up over many decades, has changed dramatically. The set-up of phenomena describing a continuous dynamism that is difficult to predict in a simple way is referred to by specialists as VUCA. This acronym is based on the following English concepts:

V for Volatility

U for Uncertainty

C for Complexity

A for Ambiguity

It is increasingly challenging to identify trends, developments and situations. An example of this is the development of the technology market and the labour market - the emergence of new professions and occupations, as well as related and influential migratory movements. Uncertainty is the lack of control and the inability to predict and manage variables, but at the same time, the need to take them into account in much greater numbers. Changes in phenomena, areas and information coverage are so large that it is practically impossible to manage all possible variables in the traditional way. We are also coming to the conclusion that phenomena, and the relationships between them, cannot always be explained by analyses, accepted

patterns and logic. Because of the ambiguity, situations and events require a broader perspective and new experiences to fully understand their impact.

Analysing just the last five years, it is easy to demonstrate how many analytical factors in the context of scenario planning have been added through macro phenomena. When creating a long-term scenario in 2018 or 2019, few analysts at all took into account and, if they did, attributed little of the impact on development and operations to phenomena such as a potential global pandemic or a full-scale war in an immediately neighbouring country. And these two events have had by far the greatest impact on the operations and activities of an overwhelming number of entities and individuals. To be honest, few were prepared for this situation and took the necessary precautions.

When analysing factors like these, we need to realise that effective scenario management requires a dramatic change in approach. In a world where the only constant is the volatility of the environment, which races far ahead of our knowledge, it is necessary to look for new scenario planning tools. The key factor in building scenarios is not to navigate through inevitable factor variations by merely forecasting levels of change and analysing and interpreting the results. In the new reality, the variables are the phenomena themselves, and a valuable scenario analysis should include factors and events of high relevance to the future activities of the forecast. Is this at all possible? It is somewhat reminiscent of the transition from real number calculus to computation on complex numbers or multi-space analysis with dependencies. Are there any commercial solutions capable of feasible application? Probably not, or not too many know about them. On the other hand, it will undoubtedly be very difficult to operate in an environment of increasing dynamics of change and impacts of an increasing number of variables that are difficult to predict in traditional scenario analysis. A lack of knowledge of the factors influencing (both positively and negatively) production and service activities limits the ability to respond and thus reduces the effectiveness of operations and development. An example is the above-referenced situations - the global pandemic and the war in Ukraine. Even partial awareness would allow us to prepare for the potential adverse effects of the events (such as the disruption of supply chains or shortages of energy resources). Phenomena have emerged and become widespread that would have been difficult to accept even if these events were never to happen (e.g. the rise of distance work). On the other hand, scenarios, in the sense of anticipating unexpected phenomena and events, are not only about preventing negative consequences. They can also be used to gain a competitive advantage and possibly to avoid mistakes in the long-term planning of development activities and construction of a company strategy.

In summary, we have recently seen a high saturation of unexpected events and phenomena. We are surrounded by increasingly noticeable VUCA conditions. So, is the ability to estimate and anticipate potential events with the capacity to destabilise operations necessary and worthwhile? And is it even possible? After all, there are probably no effective tools for this at the moment. Kidlin's Law states: "If you are able to clearly describe the problem, it is half solved." Increasing flexibility in operations may be a good direction in response to the proliferation of new developments affecting process operations and the business environment. However, is it sufficient? Is it not better to have additional knowledge of what may stand in our way and to prepare for it accordingly, or even to use it positively and treat it as an opportunity to develop and achieve a technological, business and/or competitive advantage?

Precisely predicting the future will probably never be possible. On the other hand, acquiring and building competence in the area of future scenarios and analytics related to the search for potential opportunities and threats that may occur and have a direct impact on the current and future operations significantly improves the chances for survival and development in a world that is changing faster than ever before. And it is only a matter of time before a developmental tool is developed.

Michał Fifowski
Innovation Expert

The common denominator of the quoted statements is the need for a prudent, strategic approach to the future functioning of each industry. Only the identification of how social, economic, ecological and industrial trends develop and which phenomena are related to these trends will give us an opportunity to prepare for effective business activity in the future.

The views of scientists whose research results are presented in our journal are complementary to the presented considerations of practitioners. We wish you pleasant reading.

On behalf of the Editorial Board
Rev. Professor Włodzimierz Broński
Editor-in-Chief