



The ethical context as a historically significant factor of risk management efficiency

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Abstract

The purpose of this study is to identify ways to improve the effectiveness of risk management, thereby bridging the gap between the increasing needs of organisations and their current capabilities based on the study of past civilisational crises. To solve this task the main ethical factors that contributed to the success of bifurcation transitions in the past were identified through the analysis of turning points in history: the Upper Paleolithic Revolution, the Axial Age Revolution and the Industrial Revolution, using the model of minimum necessary social stability developed by the author based on the hypothesis of techno-humanitarian balance. Starting from the current position of the society on the eve of the next bifurcation transition, a comparative analysis of the ethical factors that made past successes possible with the current practice of risk management in organisations was carried out. The following factors were highlighted as priorities for the implementation in risk management practice: working together to achieve common goals, establishing and adhering to uniform rules for achieving common goals, and creating a favourable environment for the targeted use of human creative potential. As a result, a scheme has been proposed to complement current risk management practices by incorporating higher level ethical factors that promote rational goal setting, as well as involving the creative skills and efforts of lower level stakeholders in situational response. The proposed scheme can help to strengthen the impact of risk management, both for the organisations themselves and, indirectly, for society.

Keywords: civilisational crises, risk management, ethical factors.

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伦理背景作为风险管理有效性的历史重要因素

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简介

本研究的目的是寻找提高风险管理效率的方法，以缩小组织日益增长的需求与其当前能力之间的差距，基于对历史文明危机经验的研究。为此，通过分析历史上的关键转折点：上旧石器时代革命、轴心时代革命和工业革命，作者使用基于技术-人文平衡假说开发的最低必要社会稳定性模型，确定了成功度过这些分叉过渡的主要伦理因素。假设当代社会正处于另一个分叉过渡的前夕，作者对促成过去成功的伦理因素与当前组织风险管理实践进行了比较分析。在风险管理实践中，优先考虑的因素包括：由于共同目标而进行的合作、在实现共同目标过程中制定和遵守统一规则、以及创造有利环境以有针对性地利用人的创造潜力。因此，提出了一种补充当前风险管理实践的方案，包括引入高层次的伦理因素以促进合理的目标设定，并在情境响应中利用利益相关者的创造能力和努力。所提出的方案可以增强风险管理的效果，不仅对组织本身有利，还能间接惠及整个社会。

关键词：文明危机、风险管理、伦理因素。

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Introduction

In times of instability, human activity is subject to a powerful current of unpredictable change. As a result, researchers are increasingly interested in studying the experience of past civilisational crises. Identifying the factors that ensured the survival and development of individuals or whole states in the context of universal history¹ allows us to better define the current position of society and, possibly, to propose more effective ways of development.

This type of historical analysis can also be carried out from the point of view of the development of risk management in organisations. Indeed, the current state of risk management activities can be characterised in two ways. On the one hand, there is a relatively high level of maturity of the risk management technologies used. Conversely, the current set of methods lacks the requisite degree of a priori readiness to respond effectively to the most serious and disruptive events. This raises the question of whether there is a proactive strategy that would enable risk management to be implemented at an earlier stage in its development. It is not yet clear which development vectors for risk management practice can be prioritised and whether they can be found in principle.

The objective of this study is to identify strategies for enhancing the efficacy of risk management in order to

bridge the gap between the evolving needs of organisations and their current capabilities. This will be achieved by studying the experiences of past civilisational crises.

The first part of the article presents an analysis of interdisciplinary approaches to the study of past civilisational crises with a focus on the available data of universal history. It highlights examples of research conducted from a risk management perspective, as well as the contributions of philosophers, psychologists and mathematicians who consider risks within the context of historical circumstances, including climatic and social factors. Based on this source material, the author identifies the most pertinent directions for risk management development in the current environment.

The second part, based on the hypothesis of the techno-human balance [Nazaretyan, 2001], proposes a model for achieving the minimum necessary level of social sustainability, based on the level of its technological development. The proposed model is employed for the purpose of discerning the actual state of society.

The third part is devoted to analysing and identifying the key factors that have contributed to the success of overcoming civilisational crises in the past.

The main conclusions highlight possible options for the development of risk management strategies within organisations, based on the ethical factors identified.

¹ In this article, the term “universal history” is defined as a field of interdisciplinary historical research that considers the interdependence of societal and natural development.

1. General and specific studies of past civilisational crises as a source of new directions in risk management

If humanity still exists, it means that it knows how to overcome crises, or at least knew how to do so at the right moment. What made it possible for humans to survive and develop in the critical conditions of the past? Representatives of different fields of knowledge use different approaches to answer this question.

One of the most comprehensive examples of interdisciplinary systematisation of knowledge on the human experience of overcoming civilisational crises is the book [Nazaretyan, 2001]. The author identifies six anthropogenic crises that “culminated in a breakthrough into new cultural epochs”:

- 1) Palaeolithic Revolution (0.7-1.2 million years ago);
- 2) Upper Palaeolithic Revolution, or Cro-Magnon Cultural Revolution (30,000-35,000 years ago);
- 3) Neolithic Revolution (10,000-12,000 years ago);
- 4) Urban Revolution (5,000-3,000 years ago);
- 5) Axial Age Revolution (mid-1st millennium BC);
- 6) Industrial Revolution (18th-19th centuries).

These events are typically associated with a broad coverage area and, in most cases, are accompanied by notable climatic shifts. Nazaretyan's [Nazaretyan, 2001] analysis of how these crises were overcome led to an unexpected conclusion. While the specific recovery methods differed from case to case, each subsequent crisis resulted in a radically new stage of development for society. This was accompanied by growth in three main directions, which the author defines as “vectors of evolution” or “vectors of successive global changes”:

- 1) technological advancement;
- 2) demographic growth;
- 3) increased organisational complexity.

In addition to the objectively observed post-crisis increments, the author puts forward a hypothesis regarding the existence of two further evolutionary vectors, which at this stage cannot be definitively accepted or refuted:

- 4) intellectual capacity and cognitive complexity;
- 5) the hypothesis of techno-humanistic balance.

The fourth point, while open to question, is intuitively clear. We will therefore focus our attention on the description of the final fifth vector of civilisational development, namely the hypothesis of the techno-humanitarian balance. In its most general form, the hypothesis reads as follows: “The higher the power of production and combat technologies, the more sophisticated are the cultural regulatory instruments needed to maintain social stability” [Nazaretyan, 2001]. This law is illustrated by the assessment presented in the book, derived from ethnographic data: “With the progressive increase in the lethality of weapons and the density of human settlement, the percentage of military casualties in the total population has remained constant over millennia. In fact, it seems to have decreased slowly and erratically, fluctuating between 4% and 1% per century”.

The bifurcation behaviour of anthropogenesis is discussed by N.N. Moiseev in his book, *Man and the Noosphere* [Moiseev 1990]. He considers the Palaeolithic revolution and the Cro-Magnon cultural revolution according to the following scheme: “biological evolution – bifurcation – social development”. The author posits that the transition from *Australopithecus* to *Homo sapiens* occurred in an instant on the scale of evolutionary change. He suggests that such a result could have been achieved through the process of self-organisation, given the potential variability of neoanthropic organisms and the extremely challenging conditions of the struggle for survival. As in the book [Nazaretyan, 2001], the significance of the principle “Thou shalt not kill!” is highlighted as occupying an exceptional position in the formation of human society. The reflections on potential prerequisites for bifurcation stability in early human communities have ultimately led the author to conclude that “it is not intelligence per se, but rather the comprehensive organisation of social life, capable of actualising its potential, that became the domain of selection”.

The analysis of global catastrophes of past epochs is a topic of growing interest among a diverse range of professionals, including historians, philosophers, mathematicians, physicists, and researchers in the field of risk management. By way of illustration, the authors [Linkov et al., 2024] examine the collapse of a prosperous civilisation of Mediterranean states in the Late Bronze Age, which occurred between 1200 and 1100 BC. By using a modelling approach to trade and socio-political networks between states, the authors have identified potential causes that led to a cascading failure in the network. They have also proposed methods for establishing more resilient networks. One of the chapters in the book on organisational resilience methods [Linkov, Trump, 2019] analyses responses to the bubonic plague epidemic in Venice between 1575 and 1577. Another paper [Dibble, Finné, 2021] examines the increasing heterogeneity of food production methods in southern Greece in the Late Bronze Age and Early Iron Age as an adaptive response to climate change in the form of reduced rainfall. The conclusions presented in [Haldon et al., 2020] are based on an in-depth analysis of responses to a number of historical crises occurring concurrently. In particular, the authors examine the responses of the Western Roman Empire and England to plague epidemics in the 500s and 1346-1352, respectively. Furthermore, the paper considers responses to climate change and natural disasters in Antioch, the Roman and Ottoman Empires. The key finding is that societies with greater social stratification are less effective in responding to challenges. It is typical for the general population to respond to situations on an ad hoc basis, lacking awareness of the full extent of the event and the resources required to address it effectively. Meanwhile, those in positions of power and influence often react in a way that prioritises their personal interests over the

well-being of other, less socially protected segments of society. Ultimately, such tactics result in significant adverse effects for the entire society.

Another group of studies focuses on identifying the key factors that contribute to the occurrence of previous catastrophes. The article [Kaniewski et al., 2020] presents findings based on data on the reconstruction of temperature and precipitation in the Eastern Mediterranean over the past 6,000 years. The findings indicate that significant social changes and plague outbreaks occurred during relatively cooler periods, when precipitation patterns changed and droughts had a greater impact than temperature shifts. A separate study [Holdaway, 2023] based on data on glacial deposits in Greenland also indicates a significant correlation between precipitation levels and human well-being in Europe and the Eastern Mediterranean. In contrast to the findings of a previous study [Kaniewski et al., 2020], the impact of climate change may be either positive or negative, depending on the region. A comparable study [Zhang et al., 2020] assesses the correlation between climate change and warfare and rebellion in Imperial China (1-1911). It was found that the area of military operations shifted southwards during periods of cold weather and in the opposite direction during periods of warm weather and increased rainfall. Concurrently, the intensity of rebellions decreased during periods of cold and dry weather and increased during periods of warmer and wetter weather.

In addition to climate, the human factor, in particular individual and collective human error, is a significant contributing factor in the development of catastrophic events and their consequences. By way of illustration, the book [Moon, Popeta, 2022] examines the missteps and omissions of key individuals in the lead-up to these incidents, drawing on a substantial body of evidence from past man-made disasters.

A comparison of a group of studies dedicated to risk management with interdisciplinary studies of civilisational crises reveals a significant difference in approach. The majority of risk managers adopt a narrow focus in their studies, examining the efficacy of contemporary risk management techniques in historical contexts or identifying dependencies and consequences resulting from the impact of various factors. While such studies undoubtedly offer insights, it is evident that a retrospective analysis from the vantage point of current approaches is inadequate for identifying novel directions in risk management development.

Concurrently, studies of a generalisable nature, although they do not address the risk management toolkit in sufficient depth, provide insight into the principal factors and driving forces that are necessary for an individual to successfully navigate crisis periods.

It is of particular interest to consider historical studies of risk management that reveal contradictions and extend beyond the limits of modern standards and methods. To illustrate, the work [Haldon et al., 2020] presents a novel challenge: the organisation of mutually beneficial interac-

tions between heterogeneous groups of people. The book [Moon, Popeta, 2022] places the human factor at the centre of its analysis, examining it as the primary driver of successful or unsuccessful risk management experiences. A comparison of these results with the main conclusions of interdisciplinary works, such as [Nazaretyan, 2001] and especially [Moiseev, 1990], suggests that the greatest potential for adaptation and development in times of crisis lies in the area of individual and collective human qualities. Consequently, a shift in focus from technocratic models and forecasts to the development of individual qualities and the organisation of human relationships in an environment of increasing risk tension may prove to be the missing element that will significantly increase the effectiveness of risk management activities.

Therefore, the following sections of this article will examine the theoretical assumption regarding the importance of revealing a person's potential and abilities for self-organisation in crisis periods in the context of risk management tasks.

2. A model for achieving the minimum level of necessary social sustainability based on the concept of techno-humanitarian balance

The hypothesis that a favourable environment is necessary for the development of human adaptive potential requires further delineation in order to facilitate the resolution of practical issues. To this end, a model for the growth of the minimum necessary social sustainability was developed on the basis of the hypothesis of techno-humanitarian balance proposed in the book [Nazaretyan, 2001].

Akop P. Nazaretyan suggests the following approach to formalising the law of techno-humanitarian balance:

$$S_i = \frac{f_i(R)}{h_i(T)}, T > 0, \quad (1)$$

where S_i – internal stability of the social system, i – internal, R – quality of regulatory mechanisms of culture, T – technological potential.

Concurrently, Nazaretyan postulates the existence of external stability within the social system S_e , which, in his view, should serve as a positive function of technological potential:

$$S_e = g(T, \dots), \quad (2)$$

where e – external.

The above expressions (1) and (2) illustrate the idea that “the expanding technological potential diminishes the social system's reliance on the states and fluctuations of the external environment, while simultaneously rendering it more susceptible to the conditions of mass and individual consciousness” [Nazaretyan, 2001].

The author of this publication rejects the assertion that the growth of technological potential makes the social system less dependent on environmental fluctuations. Currently, the expansion of technology represents

a considerable contributing factor to climate change and the intensification of natural disasters. Consequently, at values of T proximate to the limiting values at a given level of stability, the direct dependence (2) may not be observed and may even be reversed.

Furthermore, it is logical to assume that the complete sustainability of society S with respect to external and internal influences can only be attained by simultaneously achieving the minimum requisite values of both internal and external sustainability. This convergence of the multiple factors can then be expressed by the following equation:

$$S = S_i \times S_e. \quad (3)$$

In view of the above assumptions and in recognition of the fact that the precise form of the minimum necessary social sustainability function cannot be determined at this time, it seems reasonable to propose the following simplified representation of the law of techno-humanitarian balance for the purposes of this article:

$$S \sim \frac{R}{T}, \quad (4)$$

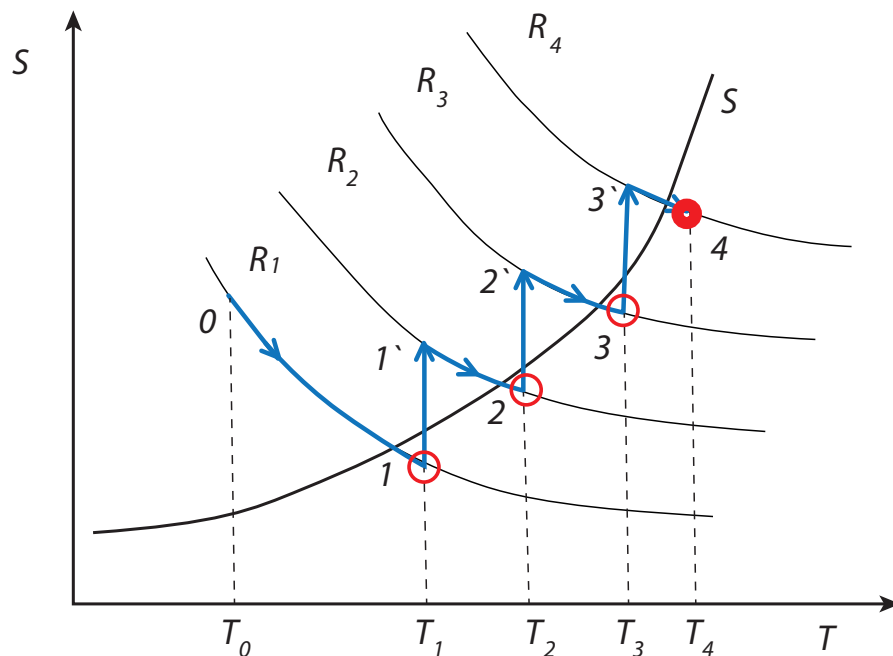
where S – full social sustainability for external and internal impacts.

Furthermore, it can be assumed that as society develops technologically, the minimum level of total sustainability S_{\min} , required to maintain stable life activity will increase. Consequently, the trajectory of social development can be schematically represented as an iterative process (blue trajectory 0-1-1'-2'-2'-3'-3'-4) (Fig. 1).

The resulting iterative trajectory of social development 0-4 (Fig. 1) aligns with the observed historical pattern of civilisational crises. Indeed, starting from an arbitrary point T_0 , society increases its technological level while maintaining cultural regulation at a constant level R_1 . At a certain point, there is a limit to the extensive development of technologies T_1 . Once the curve of minimum necessary sustainability S_{\min} is crossed, society begins to experience various kinds of shocks, including acute shortages of basic resources and a series of related problems that raise questions about the very existence of the society. The critical deviation from the equilibrium state and the subsequent transition can be defined as a bifurcation moment. Figure 1 illustrates a bifurcation transition, indicated by the vertical line 1-1', which can occur almost instantaneously, according to evolutionary standards [Moiseyev, 1990]. Upon reaching a new cultural level R_2 , the society develops technologically to the point of minimum sustainability, and subsequently progresses to the next bifurcation point T_2 . The process repeats itself.

The only certainty regarding the outcome of the bifurcation process is that it is unpredictable. Is there a way to increase the probability of a favourable outcome? What factors contributed to the success of past civilisational transitions? In order to address these questions, the following section will attempt to consolidate the information within the context of the model presented in Figure 1, with the aid of three well-known civilisational crises: the Cro-Magnon Cultural Revolution, the Axial Age Revolution and the Industrial Revolution.

Fig. 1. An iterative process model for achieving the minimum level of necessary social sustainability S_{\min}



Notes. S – social sustainability; T – level of technological development; S_{\min} – minimum necessary level of social sustainability; R_1 – R_4 – lines of constant level of cultural regulatory mechanisms, and $R_4 > R_3 > R_2 > R_1$; T_0 – T_4 – levels of technological development at moments of bifurcation of cultural development of society, $T_4 > T_3 > T_2 > T_1 > T_0$; T_4 – position at the current moment.

3. Lessons from civilisational crises and an analysis of the current situation from the perspective of the model for achieving a minimum level of social sustainability

Let us posit that at the level of technological advancement corresponding to the T_1 stage of fire and chopping (Fig. 1), there was a cultural revolution among the Cro-Magnons (Indeed, the Neanderthals had a physical and intellectual advantage over their competitors, and their brains were larger in volume. 30-35 thousand years ago), resulting in their near-complete displacement of the Neanderthals. The initial position at T_0 did not indicate that this would be the result. What could have been the cause of their complete extinction? One of the proposed explanations posits that fire was used not only for domestic purposes, such as heating and cooking, but also for the purpose of burning vegetation [Roebroeks et al., 2021]. This advanced method of hunting permitted the acquisition of heat-treated food with minimal risk. Furthermore, it was possible to intentionally direct the prey towards a desired location. However, this also resulted in a catastrophic decline in biodiversity, which in turn led to the extinction of Neanderthal tribes. At the same time, Cro-Magnon tribes capitalised on their primary strength, namely effective community organisation (Gilpin et al., 2016). Despite their comparatively less advanced physical condition, their more developed speech and prohibition against the killing of their own tribesmen facilitated the evolution of cooperative abilities and the potential for the division of labour. Those members of the community who were unable to participate in hunting could assume auxiliary roles, such as the preservation of knowledge, the provision of medical treatment, and the manufacture of tools, including chisels, spear-throwers, fishing devices, and potentially even bows. Ultimately, the Cro-Magnon population completely displaced the Neanderthals. The form of selection in which “the herd with better developed cooperative relations, which provided a greater diversity of individual qualities, gained an advantage in competition” (cit. ex [Nazaretyan, 2001]) ensured the leap 1-1' to a new cultural level R_2 (Fig. 1). The Cro-Magnon people won because they prioritised the interests of the community over their own personal interests.

The next significant turning point in human cultural development was the Axial Age Revolution (mid-first millennium BC). This followed the Bronze Age Catastrophe, which saw the fall of numerous powerful states in the Middle East and Eastern Mediterranean. Expensive and heavy bronze weapons were replaced by relatively light and cheap steel weapons. Consequently, the size of armies and the intensity of battles increased significantly. This, while maintaining the same values and norms, threatened the collapse of the most advanced societies [Nazaretyan, 2001]. In order for society to survive the uncontrollable increase in violence, higher levels of cul-

tural regulation were required. This is illustrated by point 2 at the level of “iron” technology T_2 (Fig. 1).

The cultural response manifested in the almost simultaneous emergence of the world's major religions. K. Jaspers [Jaspers, 1991] observed that this was a period marked by the spread of ideas of Confucius and Lao Tzu in China, Buddha in India, Zarathustra in Iran, prophets Elijah, Isaiah, Jeremiah and Deuteronomy in Palestine, Homer, philosophers Parmenides, Heraclitus, Plato, tragedians, Thucydides and Archimedes in Greece. “The new element in this age is that man everywhere became aware of being as a whole, of himself and his limits” [Jaspers, 1991]. Man ceased to be guided only by the interests of the species, he sought moral support in himself, “he discovered in himself the principle through which he could rise above both himself and the world” [Jaspers, 1991]. Conscience is formed as an instrument of self-control.

The transition from 2-2' to the new cultural level R_3 at point T_2 (Fig. 1) was accompanied by a notable shift in the “centre of ethical development” from the interests of the genus to the individual. It is possible to distinguish two main focus areas for personal development: creativity and self-control. As a result of this cultural breakthrough, K. Jaspers identifies a group of people he refers to as the axial peoples, who were able to make a leap forward and continue their cultural history. He identifies the Chinese, Indians, Iranians, Jews and Greeks as key examples of these nations. Those that did not achieve the breakthrough – Egypt and Babylon – subsequently experienced a decline in their cultural influence.

Once more, at the midpoint of the second millennium AD, a set of prerequisites for another evolutionary leap manifested (point 3 at the apogee of extensive agrarian technologies T_3 in Fig. 1). A prolonged period of anomalous cooling (commonly referred to as the Little Ice Age, spanning the 14th to 19th centuries) was accompanied by demographic growth and the degradation of natural landscapes, including deforestation and river pollution. Plague epidemics and violent conflicts also indicated that the limits of social sustainability had been reached, necessitating a shift in approach.

The solution to this impasse was the industrial revolution of the 18th and 19th centuries. This period saw a significant shift from manual to machine labour, which subsequently led to industrialisation and a notable increase in labour productivity. The transition from agrarian to industrial society has been a significant driver of economic growth and improved living standards.

The ethical context that made such changes possible was the legislative enshrinement of the rights and freedoms of the individual, which had been recognised as early as the Axial Age and developed in the Renaissance and later. This context enabled the abolition of slavery and the emancipation of peasants. It took more than two thousand years for the notion that every human being is a creative, free being to mature and be reflected in the state system. This notion ultimately bore fruit. Britain

served as the primary driver of the Industrial Revolution. The accumulation of resources from conquered colonies, the novel form of social contract, and the free movement of labor played a pivotal role in this historical phenomenon.

The years preceding the Industrial Revolution were also a period of significant philosophical and cultural advancement. The early evolutionary ideas of F. Bacon, R. Descartes and P. Fermat can be attributed to this period. The significance of education, qualifications and individual development grew within society. The words of Descartes, who proposed utilising the forces of nature “in the same way to all the uses to which they are adapted, and thus render ourselves the lords and possessors of nature” [Descartes, 2022], can be regarded as a defining statement of the general characterisation of the direction of human development during this period.

In light of the aforementioned, the cultural transition 3-3' at the point T_3 to the level R_4 can be considered the logical conclusion of the transition 2-2', which was primarily driven by the “pressure from below,” namely the advancement of individual qualities and human freedoms. Concurrently, the significance of the family and the state as cultural constraints “from above” persisted. Nevertheless, the vector of development, articulated by Descartes with remarkable clarity, can be identified as the primary trajectory.

Thus, in examining the three bifurcation cultural transitions at points T_1 , T_2 , T_3 the initial transition was predominantly shaped by external forces, while the subsequent transitions were largely driven by the necessity for internal human development.

Let us assume that modern society is approaching the limit of extensive development of industrial technologies and is on the verge of transitioning to information technologies T_4 at point 4 in Fig. 1, which represents a pivotal moment of cultural and technological change. Let us examine the necessary directions of development and identify the factors that can increase the probability of a favourable outcome.

Firstly, the priority of external circumstances is obvious today; it dictates the need for cooperation between states on a global scale. K.E. Tsiolkovsky wrote: “There must be unification, for the benefits of beings demand it. If they are mature, they are reasonable, and if they are reasonable, they will not do evil to themselves” [Tsiolkovsky, 2001]. However, as usual, the actual picture observed is far from the ideal. The demise of the Neanderthals in the Upper Paleolithic era was precipitated by external pressures, whereas the Cro-Magnons were able to unite and survive. In the modern era, the question of survival is faced by the entire global population, transcending the boundaries of states and nations. Studies on the economics of common pool resources have identified three fundamental factors for success in this area: a common understanding of the value of the resource, the inevitability of adopting common rules, and the absence of dis-

crimination [Olson, 1995; Ostrom, 2015]. It is clear that there is still a long way to go before we reach this distant goal. The Cro-Magnon people were able to achieve this in a relatively short period of time at the individual level. It would be interesting to speculate as to whether we will be able to solve the same ethical question at the state level.

Secondly, the ‘Cartesian’ man was so quick to recognise his freedoms and importance that he failed to consider the boundaries of sustainability. The current generation of consumers has a high demand for a certain standard of living. Furthermore, there is a notable lack of awareness regarding the influence of individual decisions on the final outcome. In other words, if goals are not clearly defined and risks are not assessed, it is unclear whether it is more efficient for an individual household to sort rubbish, or if it is sufficient for just one neighbour to do so, with the others being exempt. It is not only about rubbish disposal, but also about making moral choices regarding the use of the totality of benefits and freedoms. Consequently, the second most important task is to decompose global goals and objectives into norms of law and self-perception, which can then be internalised as limitations for each individual.

Thirdly, in order of priority but not in terms of importance, it is essential to make full use of human creativity and business abilities in order to solve the bifurcation task, which is to be carried out from the category of the impossible. It is insufficient to rely solely on the ethical considerations of the law to facilitate a collective moral transition. Indeed, as Nikolai A. Berdyaev wrote, “the ethics of law is both very human and well adopted to human needs and standards, and extremely inhuman and pitiless towards the human personality, its individual destiny and intimate life... The law neither cares about the individual's life nor gives him strength to fulfil the good which it requires of him” [Berdyaev 2019]. Prigogine also posits that individual actions can influence the overall result. He states, “We live in the era of fluctuations, when individual action remains essential” [Prigogine, 2000]. Consequently, the creation of favourable conditions for the implementation of individual creative potential represents a crucial factor in the transition to a new level of civilisation development.

4. Some suggestions for addressing the practical problems of modern risk management

What practical insights can be derived from the historical analysis for effective risk management in organisations? Let us compare the current practice of the main standard of risk management, GOST R ISO 31000-2019² with the three priority global ethical tasks highlighted at the end of the previous section, which have been identified as success factors in the forthcoming transition to a new civilisational era.

² GOST R ISO 31000-2019. Risk management. Principles and guidelines. Moscow, Standardinform, 2020.

Fig.2. The organisational risk management system in an ethical context



Firstly, it is important to identify the specific circumstances that currently prevail in order to ascertain the best course of action. It seems likely that as planetary sustainability approaches its limits, it will have a significant impact on the activities of the global human community. It is evident that the objectives of organisations, which have a substantial impact on the economy, must be aligned with those of society. The current principal risk management standard, ISO 31000:2019, simply states that the objective of risk management is to create and safeguard the value of an organisation. “Managing risk improves performance, encourages innovation and supports the achievement of objectives”³. It should be noted that the objectives may vary in terms of their specific content. Therefore, the arbitrary selection of goals does not provide companies with any guidance in navigating global processes, while the impact of external risks is likely to intensify in the near future. While many businesses do consider the United Nations Sustainable Development Goals (UN SDGs) in their strategic planning, this is often done in a highly selective and unsystematic way. The lack of clear logical linkages among the SDGs and their inability to be correctly decomposed presents a significant challenge to their achievement. Goal setting serves as the foundation for all future risk management activities, making it crucial for organisations to develop this component of risk management with a global ethical objective in mind.

Another critical global task is the decomposition of objectives, the establishment of robust frameworks for risk-aware behaviour of personnel, and the implementation of appropriate risk management procedures at all levels of the organisation. These are standard procedures within the field of modern risk management. It is possible to identify varying levels of maturity across different companies, but these tasks represent a significant portion of the risk management workload. The ISO 31000:2019 standard requires managers to communicate to relevant individuals in the organisation “that risk management is a fundamental responsibility” and to define the authority, duties and responsibilities for the respective roles in relation to risk management. It is evident that these requirements align with and adhere to the ethical principles set forth in the law.

With regard to the third global ethical task, namely the utilisation of human creativity, this invaluable resource is not yet fully integrated into risk management practices. GOST R ISO 31000-2019 merely states that “human behaviour and culture significantly influence all aspects of risk management at every level and stage”. The guidelines of the International Institute of Risk Management⁴, mention personal ethics and behavioural models in the context of identifying undesirable behaviours and excessive risk-taking. Only a few studies have focused on developing a new approach to risk management, namely resilience⁵ [Park et al., 2013; Reid, Rout,

³ Ibid.⁴ Risk culture. Under the Microscope. Guidance for Boards. The Institute of Risk Management, 2012.⁵ Resilience.

2020], and have emphasised the significance of ‘bottom-up initiatives’ in incident response tasks. However, if such a situational response is not adequately prepared and guided, its effectiveness is limited, as highlighted in [Haldon et al., 2020]. Conversely, a well-directed, adequately resourced and motivated initiative can significantly enhance the agility and effectiveness of risk management activities.

In light of the parallels between civilisational crises and the ethical factors that contributed to their successful resolution in the past, it is evident that only one of the three identified factors remains relevant in the context of modern organisational risk management: the one responsible for the ethics of the law. Figure 2 demonstrates the significance of this factor in the context of contemporary organisational risk management in Box 2.

Integrating ethical considerations into existing risk management practices can enhance the effectiveness of risk management activities in organisations. This can be achieved by incorporating elements that address the ethical context at the global level (Fig. 2, Box 1) and at the level of individual stakeholders (Fig. 2, Box 3). For instance, integrating global processes into the objective-setting process will ensure the organisation prioritises external risks and enables prompt involvement in their management. Furthermore, efforts to support and

coordinate individual initiatives can result in notable enhancements in the quality, speed and depth of situational responses.

Conclusion

In order to respond effectively to new threats and challenges, modern enterprises require new risk management tools. The study indicates that the greatest potential for responding to crises lies in the realm of individual and collective human qualities. A historical analysis conducted from this perspective identified three main ethical factors that contributed to the successful resolution of global crises in the past. These were: collaboration in pursuit of shared objectives, the establishment and enforcement of shared standards for achieving shared objectives, and the creation of an environment conducive to the directed utilisation of human creativity.

The proposed framework enables the enhancement of current risk management practices by aligning individual efforts with societal objectives through the lens of organisational risk management. Therefore, an ethical context can not only significantly enhance the impact of risk management activities for a specific organisation, but also contribute to the achievement of societal goals.

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