

## INTERDISCIPLINARITY IN ECONOMIC SCIENCE

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**Annotation:** Interdisciplinary studies conducted at the intersections of different sciences are considered the most relevant now, allow to analyze the impact of different sciences and methods on the possibilities of use in the economy and benefit from them.

**Keywords:** economy, interdisciplinary research, military science, method, knowledge economy, psychology, political science

Interdisciplinary research in economics is a necessary tool for understanding complex economic phenomena and processes. They allow using knowledge and methods from different fields of science to analyze economic problems and develop effective development strategies.

An important aspect of interdisciplinary research in economics is their practical significance. The results of such research can be used to make decisions in the field of regulation and market supervision, develop more effective development strategies and improve the competitiveness of the economy.

Interdisciplinary research in economics is of great importance because it allows us to consider economic problems from different points of view and gain a more complete understanding of complex economic processes. For example, the use of mathematical modeling methods can more accurately assess the effectiveness of economic decisions, while sociological and psychological research can help understand consumer behavior and make more informed marketing decisions.

Examples of interdisciplinary research in economics include research in economic geography, economic history, ecological economics, behavioral economics, and other fields.

Thus, in her article “The Advantages of Interdisciplinary Research in Economics”, E. I. Karaseva describes in detail the influence of various sciences and methods on the possibilities of using them in the economy and obtaining benefits from them. As part of his article, he considers the following methods from various sciences: mathematics,

military affairs, technical sciences, physics, information technology, biology, psychology, politics

With the help of mathematical analysis it was possible to solve complex economic tasks, learn how to effectively manage limited resources to meet needs. as the nucleus organizing many models of mathematical economics, equations of mathematical economics that are not defined today can be considered.

A distinctive feature of the equations of mathematical economics is that they are formed on the basis of the fundamental laws of economic systems. The distinctive features of the equations of mathematical economics are:

1. Formality and accuracy. The equations of mathematical economics are expressed in a formal language and have exact mathematical expressions.
2. Abstraction. The equations of mathematical economics model abstract economic processes and phenomena that cannot always be directly measured or observed.
3. Modeling of complex systems. The equations of mathematical economics make it possible to model complex economic systems and processes that can only be studied using mathematical methods.
4. Forecasting. The equations of mathematical economics are used to predict future economic events and trends.
5. Optimization. The equations of mathematical economics are used to optimize economic decisions and select the best strategies.

The equations of mathematical economics make it possible to determine the commonality and differences with the equations of other subject areas, for example, with the equations of mathematical physics. The efforts of many scientists made it possible to create new methods that could be implemented using computers, i.e. laid the foundation for the development of information technology (IT) in the economy.

With the development of information technology in the economy, it became possible to collect and analyze large amounts of data, which allows more accurate modeling of economic processes and decision-making. The use of artificial intelligence in the economy has made it possible to automate the processes of data analysis and

decision-making, which has accelerated and improved the quality of decisions made. With the development of e-commerce, new opportunities for economic analysis and forecasting are opening up, as well as new markets and business models are being created. The introduction of cryptocurrencies and blockchain technologies into the economy have created new opportunities for financial transactions and resource management, as well as provided new tools for analyzing and predicting economic processes.

Many methods in theoretical economics came from military science, for example, the option pricing method (OPM), which is one of the company's value management methods, is VBM-management (VBM - Value Based Management). It is based on "rigidly" fixed stochastic equations that describe the random walk of a particle (asset price), the risk-neutrality principle, and the boundary conditions determined by the payoff function. Similar stochastic equations and algorithms based on them are successfully used in the design and operation of military equipment operating under conditions of strong uncertainty.

For example, Kalman filters, which were developed by the military to control missiles and submarines, are now widely used in financial applications to predict stock prices and other financial instruments.

In addition, military science can be useful for the economy and in the field of cybersecurity. The military has a wealth of experience in the field of information security and cyber threats that can be applied in business and the public sector to protect confidential information and prevent cyber attacks.

Thus, military science can be useful for the economy and other areas of life, providing methods and technologies for solving complex problems, managing risks and making decisions in conditions of uncertainty and volatility.

Psychology can also be useful for economics as it can help understand people's behavior in the context of economic decisions. For example, economic psychology studies how emotions, beliefs, and cognitive biases influence consumption and investment decisions. Psychology can also help in understanding consumer behavior

and developing effective marketing strategies. Studying consumer motivations, perceptions, and preferences can help companies create products and services that better suit their needs. In addition, psychological research can help improve the effectiveness of teamwork and business leadership. Learning communication skills, motivation, and leadership skills can help companies build more productive and successful teams.

In this way, psychology can be useful to economics by providing tools to understand human behavior and create more efficient and successful business strategies.

Although political science is not an exact science, mentioning its relationship with the economy is necessary. Political science and economics are interconnected and interact with each other, since political processes and decisions have a direct impact on economic activity. Therefore, knowledge of political science can help businesses and companies adapt to changes in the political environment and create more effective development strategies.

Political science can be useful for economics because it studies political processes and the influence of state institutions on economic activity. For example, political economy studies how political decisions and laws affect the economy and business. Also, political science can help in understanding international relations and the impact of globalization on economic activity. Studying international trade relations and political conflicts can help companies anticipate possible risks and adapt to changes in the global market. In addition, political science research can help understand the impact of government regulations and tax policies on business. Studying political processes and decision-making can help companies adapt to changes in legislation and create more effective development strategies.

Thus, political science can be useful for the economy, providing tools for understanding the impact of political processes on business and creating more effective development strategies.

Of course, within the framework of this article it is impossible to cover all examples of inter-disciplinary interaction between theoretical economics and other sciences. The main goal was to determine the main points of the interdisciplinary

interaction of economic science and show further prospects for such interaction. Interdisciplinarity is not always an effective tool, but it is considered one of the ways to solve the problems of the XXI century.

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