

The survey shows that consumers prefer the white, green and blue colors that are considered the most relevant for eco-products. In addition, it has been found out that for the formation of effective packaging it is necessary to take into account the requirements of the market and be careful with the information presented on the packaging.

### **References:**

1. The paper was written according to budget money from the Ministry of Education and Science in Ukraine, given to develop research topic № SR 0118U003572 “The development of a mechanism of commercialization of innovative products”.

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## **THE IMPACT OF THE TECHNOGENIC ECONOMY ON POLITICAL PROCESSES**

## **ВЛИЯНИЕ ТЕХНОГЕННОЙ ЭКОНОМИКИ НА ПОЛИТИЧЕСКИЕ ПРОЦЕССЫ**

## **ВПЛИВ ТЕХНОГЕННОЇ ЕКОНОМІКИ НА ПОЛІТИЧНІ ПРОЦЕСИ**

**Annotation.**The main purpose of our study was to investigate the connection between the development of robot technology, ensuing robot production and intergovernmental relations.

**Key words:** Robot technology, global processes, technogenic economy, governmental policies.

**Аннотация.**Основной целью нашей работы было исследовать взаимосвязь между развитием робототехники, внедрением робототехнической продукции и международными отношениями.

**Ключевые слова:** робототехника, глобальные процессы, техногенная экономика, государственная политика.

**Анотація.**Метою нашої роботи було дослідити взаємозв'язок між розвитком робототехніки, впровадженням робототехнічної продукції і міжнародними відносинами.

**Ключові слова:** робототехніка, глобальні процеси, техногенна економіка, державна політика.

The main purpose of our study was to investigate the connection between the development of robot technology, ensuing robot production and intergovernmental relations. We chose Japan as the object of our study as the country with the best practices in this field.[1, p 29-53]

The first stage of our study was to create a cognitive model, which could represent the interconnections we would like to investigate. The adoption of robotization achievements in the industrial sector (i.e. automation), trading in the sphere of robotics and the robot production level were three main factors chosen to reflect the connection between robotics and international relationship.[2, p 135] The foreign policy, governmental policies, adaptation policies to the increasing level of robotization, research and development activity and other aspects, were related in the flowchart and it was necessary to investigate every aspect to trace their interdependence.

The second stage of our study was data collection and processing. We have analyzed the number of patent research data and have created a list of leading countries. In addition, we have taken into account the governmental policy in Japan and the impact of robotics on employment levels. The information we found about the automation level of certain industrial sectors was equally important. Based on data from the Ministry of Economy, Trade and Industry, we created graphs displaying the current level of robotics production, the level of total demand, domestic shipments and industrial export level.

At the same time we have read articles and papers developed by leading researchers in the sphere of robotics. We assessed further development and impact of robotics not only on industry

but also on others fields of activity. Special attention was paid to reports on the loss of employment caused by robotization, possible threats and necessary countermeasures [3, p 347-358].

We have dedicated the next stage of our study to deducing equations to describe the interconnection of all investigated aspects [4, p 237- 254]. Each of seven equations (the level of domestic demand, the level of export demand, the production level, the total demand, the replacement ratio and the level of automation) gave an opportunity to furnish the trends of a certain number of variables within its sphere [5, p 222].

In order to obtain results that are more accurate and to be able to create a real model, we have invoked extra parameters, making sure we do not get distorted (skewed) results. Such parameters include governmental policy, international relations, social policy, the increase of scientific developments. It is important to note that such parameters could not be measured in exact figures due to their dependence on the human factor. Nevertheless, it is possible to avoid unintended faults in intergovernmental relations or governmental policy by changing these parameters and tracing the impact on total demand.

The last stage of our study was the model simulation[6, p 1-42]. Our task was to create a real model that can make predictions over 7-10 years. A longer period of forecasting was discarded because of the size of bias, a changing world situation and due to the possible appearance of technologies that are more progressive.

Taking into account the aforementioned work and the resulting model, it is possible to conclude that Japan is a country with great potential in the sphere of robotics. A sufficient level of scientific research makes it possible to set the necessary pace for robotics adoption. Moreover, China and Korea are the most profitable countries in the field of industrial export and both of them have the highest rates of demand for Japanese robots. However, domestic demand and shipments are the priorities for the Japanese government, which was obvious due to a positive balance on domestic demand when we were analyzing the ratio of domestic shipments to industrial export. This demonstrates an inclination to prioritize domestic necessities. This fact is extremely important for furthering Japan's prosperity: during the study, we projected the decrease of employment rate in industry (which is possible due to the ageing of Japanese society). As a result, we saw an increase in automation, which is necessary as a replacement for the workforce. After analyzing the total demand and production levels for robots we revealed that for the next 5 years the Japanese government should pursue an explicit and fast reacting policy in the sphere of robotics production. A necessary measure would be a slight overproduction of robots and, as a result, the willingness to bear a loss. In such case, Japan would be ready to cover the increasing total demand and still remain a leader of the robotics market in the future.

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