PROSPECTS FOR DIGITAL TRANSFORMATION IN THE MACHINE-BUILDING INDUSTRY

Bahadirov Iskandar Husnutdinovich Tashkent Branch of Uzauto Motors Quality Engineer Tashkent, Uzbekistan

ANNOTATION

This article discusses the prospects for digital transformation in the automotive industry. The main task of the machine-building industry is to provide all sectors of the economy with high-performance machines and equipment. Today, the digital transformation applies to almost any field of activity.

Keywords: machine building industry, digital transformation, machinery, machinery, enterprise, agriculture, digital technology.

INTRODUCTION

The machine-building industry is a set of heavy industries that produce tools for the national economy, as well as consumer goods and products of defense importance. The machine-building industry is the material basis for providing the whole economy with machinery, social labor productivity, technical progress, the material well-being of the people and the country's defense capacity depend on the level of development of the machine-building industry. The main task of the machine-building industry is to provide all sectors of the economy with high-performance machines and equipment. This sector, in turn, is an integral part of the machinery and metalworking industry, production of metal products, metal structures and repair of machinery and equipment. The machine-building industry includes such large branches as power engineering, electrical engineering, machine-tool and instrument-making, tractor-making and agricultural machinery.

The machine-building industry emerged as an industry in the 18th century, first in the 19th century in the United Kingdom, some countries in Western Europe, and later in the United States. The first machine-building plant in Russia was built in the 18th century.

The first enterprises of the machine-building industry in Uzbekistan appeared in the early 20th century. During this period, the metalworking industry consisted mainly of 14 small repair shops. They mainly repaired cotton gins and oil mills. The share of heavy industry and metalworking industry in the total industrial output was 1.3%. From the 1920s, due to the need to develop industry and transport, existing repair shops were expanded, and new ones began to be built. In November 1927, the mechanical plant of Boshpakhtasanoat was launched in Tashkent. In 1931, on the basis of this plant was established "Qishloqmash" (joint-stock company "Tashkent Agricultural Machinery Plant"), which is engaged in the repair of equipment and agricultural machinery for sawmills. Production of seed drills, harrows and cultivators has been launched at the plant.

During the war of 1941-45, 16 machine-building plants were put into operation in the republic. The network structure of the industry has changed. Launched during the war, machine-

building enterprises produced weapons, ammunition and other products for the needs of the front. After 1945, cotton and irrigation construction machinery were restored, and production of new equipment for the textile, chemical, and other sectors of the economy began. Production of cotton picking machines, excavators, electric bridge cranes, spinning machines has been mastered, specialization and cooperation of enterprises have been developed.

The machine-building industry in the country consists of more than 100 large enterprises belonging to 15 sectors. Among them, the share of tractor and agricultural machinery, textile machinery, cotton ginning machinery, electrical engineering industry is large. Currently, industries such as automotive and radio electronics, which are new to the country's economy, are being built.

Automotive industry. Cars, car engines, auto parts, various equipment, etc. The production of instruments began to take shape after the independence of Uzbekistan. Until the 1990s, there was no automotive industry in the republic. Several car repair plants in Uzbekistan (Tashkent Automobile Repair Plant was launched in 1939), Uzavtotexxizmat, UzavtoVAZxizmat car associations have been providing car maintenance services to enterprises, organizations and the population. Construction of the automobile industry on the basis of existing and newly built plants in the automotive industry, passenger cars and trucks, buses, trolleybuses and spare parts i. ch., the establishment of service, meeting the needs of the national economy in road transport equipment, access of the automotive industry to the world market with competitive products are being addressed (see automotive industry).

Tractor and agricultural machinery. This sector accounts for about 20% of the total output of the country's machine-building industry. Until the early 1990s, many of the network's products were of former Union importance. In the CIS countries, cotton picking machines, seed drills, cotton-picking tractors, the bulk of tractor trailers are produced in Uzbekistan. In the early 1930s, planting and tillage machines used in cotton growing, technological for cotton gins, etc. equipment is manufactured at the only mechanical plant in Central Asia, Boshpakhtasanoat. By the 1990s, more than 20 factories, associations and organizations were operating in the field of tractor and agricultural machinery. The network includes cotton tractors, engines, tractor trailers, a complex of cotton machinery, horticultural and viticultural machinery, reducers of agricultural machinery, livestock, fodder machines, spare parts, etc. k. produced. 20-a. In the early 90's, a TTZ-30 tractor with a capacity of 30 horsepower and a set of agricultural machinery and weapons were created. The largest enterprises of the tractor industry - the state joint-stock company "Tashkent Tractor Plant" and the joint venture "UzKeystraktor" TTZ-30, MT-30, TTZ-100K.10, TTZ-100K.11, SX-100 ("Case"), SXR-100 and b. manufactures cotton, universal tractors, tractor trailers, loaders, metal castings, punches. Uzkishloqmash JSC, one of the largest enterprises in the field of agricultural machinery, produces seed drills, threshing machines, rotary harvesters, TTZ-30 and others. tractors and trailers, potato planters, Kimyoqishloqmash JSC x. trailer sprayers used in Machines and mechanisms for complex mechanization of cotton growing, cotton cultivators, chisel cultivators, fertilizer spreaders, dredgers, plows, plows, various machines for livestock, etc. The products are produced by Chirchikqishlogmash JSC. Since 1959, Toshkishlogmash JSC has been specializing in the production of cotton picking machines (the first cotton picking machine was

made in 1949). Hoz. During this period, the company will produce new XMG-04 and XMG-12 cotton picking machines with horizontal spindles, and 2022 Cotton Express self-propelled cotton picking machines with horizontal spindles at the UzKeysmash joint venture. Machinery and equipment used in horticulture, viticulture and horticulture are produced by JSC "Horticultural Machinery Plant". The plant was established in 1969 as a specialized design bureau, which was later transformed into the Central Asian Experimental Plant and the Central Asian Agricultural Association. Urgenchozukamash JSC (1987) specializes in the production of hanging tractors, machines, tractor harrows, rice harvesters, Bukhara specialized experimental plant, livestock equipment, cotton stalks.

General machine-building, textile industry, cotton-ginning industry, instrument-making machine-building industry, etc. Industrial enterprises The Association of Machine-building industry of Uzbekistan (Uzmashsanoat), established in 1994, the association of agricultural machinery and tractor-building enterprises Uzkishlokhojalikmashholding, the association of automotive industry and maintenance enterprises it is a member of the association of radio electronics and electrical industry of Uzbekistan (Uzeltehsanoat). In 2002, the machine-building industry of Uzbekistan produced 716 high-power current transformers, 35,130 cars (including 414 buses), 3,148 tractors, 65 cotton picking machines (see also Instrument industry, cotton ginning industry, radio electronics industry, electrical engineering industry, etc.). When talking about digital transformation, understand that this is a set of changes to the entire existing model of a particular organization / enterprise, including direct structure, development strategy, customer service, product promotion and service methods and even corporate culture, including investing in new technologies.

Today, the digital transformation applies to almost any field of activity. He came to education and we see that modern schools, colleges and universities use interactive whiteboards, students create electronic diaries, create audio and video content, implement joint projects, teachers advise through social media and so on. I am pleased that modern technology allows the use of methods that cannot be taught with traditional education, i.e. IT is becoming an important means of thinking for the growing generation.

Active digitization is also taking place in the healthcare sector, where advanced technologies are used to store large amounts of data, including patient history, analysis results, image files and more. Some clinics have begun to use mobile monitoring tools, telemedicine tools, and mobile apps to find patients - a clinic or a doctor. The digital transformation is also taking place in public administration, construction, machinery, farming and other sectors. The last decade has shown a demand for digital technologies, and the next decade will set a new vector for their development.

After all, even today, even at first glance, an unusual wish from the point of view of the customer / customer must be fulfilled quickly and successfully. It is the companies, enterprises, organizations that use modern technologies that have a future because they provide consumers with the most advanced services and services or offer the highest quality and most affordable product from all the spectrums that appear on the market. Most companies are already investing large enough funds to maintain technologies that are spiritually and technologically outdated and do not meet the requirements of the digital market. But modernization can be

more expensive. Isn't this a particular limitation of organizations when it comes to digital transformation.

REFERENCES

- 1) Тохиров А. И. Использование графического редактора «компас 3d» в обучении компьютерной инженерной графике. Universum: технические науки: научный журнал. № 7(88). Часть 3. М., Изд. «МЦНО», 2021. 84 с. Электрон. версия печ. публ. http://7universum.com/ru/tech/archive/category/788.
- 2) DOI: 10.32743/UniTech.2021.78.8-3.12076
- 3) Тохиров А. И. Методика применения cad/cam/cae систем в научных исследованиях. Universum: технические науки: научный журнал. № 6(87). Часть 5. М., Изд. «МЦНО», 2021. 72 с. Электрон. версия печ. публ. http://7universum.com/ru/tech/archive/category/687.
- 4) DOI 10.32743/UniTech.2021.87.6.11836
- 5) Teshaboev Anvar Ergashevich, et al. "Automation of surface cleanliness control in mechanical engineering." Scientific progress 1.5 (2021).
- 6) Fayzimtov Shukhrat Numanovich, and Muhammadazim Akbaralievich Rustamov. "Application of progressive methods for orientation and installation of studs in the hole with the horizontal axis." scientific research in the modern world. 2017.
- 7) Fayzimatov Sh.N., M.A. Rustamov. "Aerodynamic effect for the automation of the process of perekachki ximicheskix aggressive reagents." Sovremennye issledovaniya 6 (2018): 112-115.
- 8) Rubidinov Shohrukh Gayratjon ogli. "Cold machining method for low-precision shafts." Scientific progress 1.6 (2021): 413-417.
- 9) Todjiboyev R.K., A.A. Ulmasov, Mukhtorov Sh. "3M structural bonding tape 9270." Science and Education 2.4 (2021): 146-149.
- 10) Tokhirov Azamjon Ibrokhim ugli. "Use of three-dimensional graphic programs Kompas 3D on urokax Chercheniya in obshcheobrazovatelnyx shkolax". XXXVI mezhdunarodnoy nauchnoprakticheskoy konferentsii «Technical sciences: problems and solutions».
- 11) M.S. Anosov, G.N. Kanevskiy, R.Sh. Mansurov, S.B. Sorokin. Basic development of upravlyayushchix programs for stankov with chpu in the system SIEMENS NX. Nizhny Novgorod 2019.