The Integration of Industry and Finance between Artificial Intelligence and Supply Chain

-- A Case Study of "UBTECH" Company

Xiaomin Jie, Chun Fang, Jingxue Yuan

Guangzhou Institute of Technology, Guangzhou, Guangdong, 510800, China

Abstract

After the team to visit the " UBTECH " company of optimal choice of the company's present situation and development of artificial intelligence application foreground carried on the thorough analysis and research, and the research results are as follows, artificial intelligence application to the company put forward the solution of existing problems, and the artificial intelligence and the industry fiscal integration of supply chain management are also proposed.

Keywords

UBTECH Company; Industry and Finance Integration; Supply Chain Management; Artificial Intelligence.

1. Industrial Application of " UBTECH " Company under Artificial Intelligence

The collaborative application of artificial intelligence in supply chain management and industry and finance integration conforms to the theme of scientific and technological development of The Times, and industry and finance integration is the general trend. Artificial intelligence technology plays an important role in the realization and optimization of the company's industry and finance integration. It can shape the shared database, realize the dynamic processing of accounting information, form the information closed loop between business and finance, and facilitate real-time control and overall control. Artificial intelligence is an important branch of computer technology. Through the recognition, processing and analysis of language images by artificial intelligence robots, it can better promote the integration of industry and finance, reduce repetitive work, efficiently utilize talents and save resources.

With the development of AI technology, artificial intelligence technology has been involved in the development of modern industries. It can be said that ARTIFICIAL intelligence has been widely applied in various fields. This time through the " UBTECH " company example, a more profound explanation of artificial intelligence and supply chain industry and finance integration. Founded in 2012, Shenzhen UBTECH Technology Co., Ltd. is a global high-tech innovation company integrating artificial intelligence and humanoid robot research and development, platform software development and application, and product sales. With intelligent robots as the carrier and artificial intelligence technology as the core, it provides one-stop service for customers from all walks of life and is committed to creating an intelligent service ecosystem of "hardware + software + service + content". Ube technology focuses on customer empowerment. During the summer vacation, I went to the company to study and record, and found that the company has consumer robots and service robots.

2. Description of Artificial Intelligence Research Status of UBTECH Company

In 5G technology, Internet of Things, artificial intelligence, cloud computing technology, big data technology, block chain and other technologies, Ube technology takes intelligent robots as the carrier for research, from AI epidemic prevention products to application sites. Among them, intelligent service robots, big data analysis and intelligent recognition, computer vision, language and other technologies are relatively mature, facing a variety of application scenarios, so they have also played a great role in China's fight against the epidemic. For "smart epidemic prevention", intelligent service robots can measure temperature, identify mask wearing, identify health code, return to charge, remote prize redemption and voice broadcasting in the fields of medical treatment, distribution, inspection and so on. Intelligent service robots to assist epidemic prevention and control in public places. The application of artificial intelligence in "intelligent logistics", through the study of intelligent robots, can not only improve the production efficiency of the production line, but also reduce the occurrence of production accidents, reduce the cost of manual operation and reduce the labor intensity of manual. In the "smart park", with intelligent robots as the carrier, combined with the park service system, security patrol, welcome reception, business consulting and other services can be realized to meet the application scenarios of the park service hall and office buildings, improve the service level of the park from all aspects, and effectively promote the digitalization and intelligent transformation of the park.

In the current development of ARTIFICIAL intelligence, UBTECH has been actively exploring with outstanding companies in the industry, jointly promoting industrial development, and jointly creating artificial intelligence service ecology. It has realized the application of ARTIFICIAL intelligence products and solutions in education, entertainment, sports, business services and other industries.

3. Two Robot Research Projects of "UBTECH " Company and Their Situation

3.1. Intelligent Service Robot

Epidemic prevention intelligent service robot has five functions: non-contact temperature measurement scale, not wearing a mask dynamic detection and warning, outbreak and epidemic prevention consulting, customization and epidemic prevention propaganda remote real-time audio and video, voice, a visible light camera, infrared thermal imager, can measure the temperature and face recognition and face mask, you can also customize attendance. While the epidemic is still severe, we need to help frontline protection workers improve the quality and efficiency of epidemic prevention and control and effectively avoid the risk of cross-infection while reducing human-to-human contact.

And intelligent service robot in the traditional government affairs hall to AI solve task in traditional working mode, platform as a whole difficult, repetitive work more shortcomings, according to the optimal choice of intelligent service robot with AI to solve problems in the traditional working mode, the traditional tax, tax into artificial intelligent promote e-government service transition, Provide self-service tax environment, publicity and convenient tax handling measures services, as well as active welcome guests, tour broadcast, business consulting and other services. Intelligent service robots reduce the repetition of human labor and better integrate human and artificial intelligence for collaborative development.

3.2. Servo Drive Robot

The servo-driven robot can interact with people and shake hands, and then let the robot go to the refrigerator to get coke as required. The robot combines computer vision research technology to go to the designated place to get coke, and then returns to the staff. Combined with moment perception and control technology, the coke is delivered to its hands safely.

The main components of the servo drive include motor, control board, reducer, position sensor. But in addition to these, in fact, there are several technical directions are also indispensable, they are also important in some applications, mainly including torque perception and control, electromagnetic brake (lock), communications, software algorithms and hollow design. Torque perception and control are very important, because when the robot is running, many situations need to be taken into account, such as the collision between the robot and human, and human safety needs to be guaranteed. At this time, it is necessary to know what external force or torque the robot is subjected to. Detection function is very convenient and accurate. Servo actuator and motion control algorithm are the basic technology, which is the key for humanoid robot to walk upright and carry out complex actions. Thanks to excellent motion control algorithms, large humanoid service robots have realized flexible walking on complex terrain, self-balancing ability and flexible safe interaction.

4. Advantages and Problems of Artificial Intelligence of "UBTECH" Company

4.1. Advantages

(1) Unibe's robots span many different fields. There are stage performance, education, security, business, etc., so that the robot can serve for various fields, which involves all ages of old and young. The robot has rich "emotions", and has rich language and action systems for users' questions and actions, which optimize the user experience.

(2)The company is well-known in the market. The robot of UBTECH company appeared on the stage of the Spring Festival Gala four times, fully showing the strength of the robot, which is refreshing. The robot is applied in various scenes, and has high service ability and interaction, good user experience, and enhance its influence in the masses.

(3)Unibe's robotics is relatively good. Because has a strong research team, the optimal choice of the company's robot not only across all aspects of the field, its also very have research for all aspects of the field, the humanoid robot Wallker X behave form and people's behavior is relatively similar, can be perceived in the complex environment faces, gestures, objects, such as information, its unique mood system, and make it more rich type.

4.2. Problems

(1)Mass production and large-scale commercialization of robot products still need efforts. The production cost of robots is high, and most people lack the purchasing ability at present, so it is difficult to achieve large-scale profits in a short period of time. The development potential is beyond doubt, but attention should be paid to cost reduction and efficiency increase, otherwise it will be a development problem for excellent companies.

(2)Financing needs. It is reported that the team size is more than 1000 people, the core R&D team includes four levels, and the number of patent layouts is more than 2600 pieces. All these need financial support, so the profitability and financing needs are questionable.

5. Propose Solutions to the Problems Existing in Artificial Intelligence in " UBTECH " Companies

5.1. Facing the Problem of High Production Cost of Robot Products

China's industrial robots are mainly concentrated in the ontology and integration end, the reason is that the lack of core components seriously raise the cost of domestic industrial robots, restrict the development of the industry. In terms of cost, core components account for the majority of the cost of industrial robots, about 72%. In addition to production costs, maintenance costs also restrict the further development of robots. Some industry insiders said that in the early stage, because the robot is considered to be a one-time investment, but after the real use of the robot, the problem began to be exposed, the maintenance cost is too expensive. Therefore, it is necessary to reduce the cost of robots in China from two aspects: production and maintenance. In terms of production cost, we should improve independent innovation, strengthen r&d investment in core parts and get rid of import dependence, thus reducing the production cost of robot parts. At the same time to reduce maintenance costs, on the one hand to improve the quality of the robot to reduce the occurrence of faults, on the other hand to do a good job in after-sales service, improve maintenance quality, training professional maintenance personnel.

5.2. Financing Demand

(1) Nowadays, with the rapid development of artificial intelligence, China pays more attention to the cultivation of basic scientific talents in artificial intelligence. It supports start-up companies in the form of government guiding funds, and tax policies tend to reduce or exempt them. Therefore, we can apply for national funds and national patent fees to support the development and research of the company. In addition to increasing r&d investment and investment layout, the company starts to look for and cultivate domestic alternative suppliers for relevant links, which brings good benefits from the perspective of demand in the face of environmental pressure and industrial demand.

(2) Attract more companies to invest by virtue of the company's own advantages and the development prospect of ARTIFICIAL intelligence, or integrate more funds for production and RESEARCH and development through social financing, so as to promote the development of artificial intelligence.

6. Proposals on Strengthening the Integration of Artificial Intelligence and Industry and Finance in the Supply Chain

The emergence of new businesses and new business models brought by the technological revolution has posed new challenges to the company's financial work innovation, and further deepening the integration of industry and finance and the implementation of supply chain management has become a new subject facing the company. Therefore, relying on the development of artificial intelligence, promoting the integration of supply chain management and industry and finance in the new era, not only responds to the practical needs of the company, but also will promote the rapid development of intelligent services.

6.1. Strengthen the Propaganda of the Concept of Industry and Finance Integration

At all levels of the company, stakeholders must actively respond to the coordination and challenges caused by the convergence of industry and finance. Strengthen the publicity of the concept of industry and finance integration, understand the role of artificial intelligence in the development of the company's industry and finance integration, and gradually reduce the doubts of company members on industry and finance integration. At the same time, the

integration of industry and finance is regarded as a kind of corporate culture, which is driven by corporate culture to form a guiding role and value concept for employees so as to improve the company's business goals, increase work enthusiasm, promote the realization of the integration of industry and finance, and lay a foundation for the normal and stable operation of the whole system.

6.2. Improve the Comprehensive Knowledge and Ability of Company Personnel

At present, the integration of industry and finance of ARTIFICIAL intelligence technology has put forward higher requirements on the professional skills of company personnel. On the one hand, financial personnel are required to understand the connotation of business information and the needs of business departments, so as to better provide scientific financial support; On the other hand, company personnel are required to have certain information technology processing skills so that they can properly respond to emergency situations. Therefore, relevant personnel should constantly improve their comprehensive quality. The company shall regularly organize relevant personnel to participate in training and study, or lead financial personnel to grass-roots field observation and study, so that business personnel and financial personnel really understand each other's work, reduce communication conflicts, and accelerate the realization of industry and finance integration.

6.3. Accelerating the Building of an Intelligent Supply Chain

The integration of industry and finance in supply chain management has penetrated into the supply chain system, procurement management, sales management, inventory management and other corporate areas. Control the industry development trend and the company's overall development strategy, supply chain management is a part of the company management topics, accelerate to build an intelligent supply chain is particularly important, the use of AI and other emerging technology supply chain can help the company in the face of disruption and uncertainty of maintain business continuity, to avoid risk better. According to UBTECH, new technologies should always be applied, and the company's mid - and long-term development strategy is supported by the rational layout of the global supply chain and the introduction of new digital technologies such as big data, cloud computing, artificial intelligence, Internet of Things and blockchain to build an intelligent supply chain.

Acknowledgments

References

[1] Yang Zhengyuan, Lin Jianzhong. The Present situation and Future Development Trend of artificial intelligence [J]. Science and Technology Information, 2009 (04) :184-185.

[2] UBTECH Technology and Tianqi Stock empower intelligent warehousing and logistics with Aitechnology [N]. Science and Technology, People's Daily online. 2020-08-26.

[3] None. UBTECH and Tencent Cloud reached strategic cooperation to build artificial intelligence industry ecology [J]. Intelligent Robot, 2019(2):12-12.

[4] We Media Liu Kuang. The confusion of The Commercialization of UBTECH [DB/OL]. Pai. 2021-07-13.

[5] Xie Yuxin. Research on Industry and Finance Integration under the Background of Artificial Intelligence [J]. Commercial Accounting, 2020 (02).

[6] Zhang Wei. Research on supply chain management mode of small and medium-sized enterprises in China: A review of Supply Chain Management [J]. Business Economic Research, 2021(7):2.

[7] Yu Yongtao, Song Chunsheng, Wang Hongwei. A Brief Analysis of the Role of Supply Chain Management in Enterprise Management and Improvement Measures[J]. SME Management and Technology (Mid-10Thirective Journal),2019(2):32-33.

[8] Cao Cuizhen, Zhang Min. Business Accounting, 2019(11):84-86.