Research on the International Education Mode of Wuhan Institute of Technology under the Background of "the Belt and Road"

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Abstract: With the advancement of China's reform and opening up, the internationalization of higher education has become an inevitable trend. In the context of the "Belt and Road" construction, the importance of internationalization of higher education is more prominent. As a key university in Hubei Province, Wuhan Institute of Technology has disciplinary advantages and resource advantages. Actively promoting international education can improve education quality and educational level, and promote the university to find new development opportunities under the background of the "Belt and Road" construction, which has important theoretical and practical significance for the study of the international education model of Wuhan Institute of Technology. In this paper, PESTEL analysis, 360-degree feedback theory and value chain methods are used to analyze the specific practice and related policies of international education in Wuhan Institute of Technology University, aiming to provide reference for other universities to carry out international education and promote the overall development of higher education internationalization in our country.

1. Introduction

With the deepening of the reform and opening up of our country, the development of higher education internationalization has become an inevitable tendency. Especially in the context of the "Belt and Road" construction, the importance of internationalization of higher education has become increasingly prominent. With the strengthening of economic globalization, international scientific and technological cooperation and cultural exchanges are becoming more and more frequent. The internationalization of higher education has become a key means to cope with this trend. At the same time, the reform and development of China's higher education is also faced with many challenges, such as uneven distribution of educational resources, slow updating of educational ideas and other problems, and the introduction of international education mode can promote the development of China's higher education system to a higher level [1-5].

The Belt and Road Initiative is a China-proposed initiative that aims to promote cooperation and development among countries along the route by promoting infrastructure construction, unimpeded trade and people-to-people exchanges, and achieve mutual benefit and win-win results and regional economic integration. In this context, internationalization of higher education has become an
important way to promote educational reform and innovation \textsuperscript{[6-7]}. The state has issued a series of policy documents, such as Several Opinions on Accelerating the Opening of Education to the Outside World in the New Era, to encourage colleges and universities to carry out international education and cultivate high-quality talents with an international perspective.

As a key university in Hubei Province, Wuhan Institute of Technology has certain disciplinary advantages and resource advantages, which provides a good foundation for it to promote international education. International education can promote the exchanges and cooperation between Wuhan Institute of Technology and universities around the world, introduce advanced foreign teaching concepts, teaching methods and teaching resources, and improve its discipline construction level and talent training quality. At the same time, international education also helps to expand the international cooperative research field of the university, promote scientific and technological innovation together with foreign universities, and improve the international influence of Wuhan Institute of Technology \textsuperscript{[8-9]}.

The construction of "The Belt and Road" has brought new development opportunities for Wuhan Polytechnic University. Through international education, the school can better integrate into the exchanges and cooperation in the global economy, science and technology, culture and other fields, enhance its core competitiveness, and make greater contributions to the development of the country. In addition, international education can also drive the reform and innovation of the internal management of Wuhan Institute of Technology, and promote the improvement of the overall level of the school. Therefore, it is of great theoretical and practical significance to study the international education model of Wuhan Institute of Technology under the background of "One Belt and One Road". This study aims to explore the international education model of Wuhan Institute of Technology under the background of "The Belt and Road", analyze its current situation, existing problems and causes, and put forward corresponding countermeasures and suggestions. By excavating the practical experience and theoretical support of Wuhan Institute of Technology's international education, this research will provide reference for other universities to carry out international education, and promote the overall development of China's higher education internationalization.

Through PESTEL analysis, 360-degree feedback theory and value chain and other methods, this paper will conduct an in-depth analysis of the specific practice and related policies of international education in Wuhan Institute of Technology under the background of "The Belt and Road". PESTEL analysis \textsuperscript{[10]} will sort out the development status of universities from domestic and foreign environmental analysis, and provide theoretical support for subsequent research. The 360-degree feedback theory \textsuperscript{[11]} will select feedbacks at all levels of international education in Wuhan Institute of Technology for in-depth analysis to reveal its successful experience and existing problems. Value chain analysis \textsuperscript{[12]} will investigate various activities of teachers, administrators and international students engaged in international education in Wuhan Institute of Technology, understand their needs and suggestions, and make innovations and improvements. Through the above methods, this study will draw relevant conclusions and put forward corresponding countermeasures and suggestions, in order to provide references for Wuhan Institute of Technology and other universities to promote international education.

2. Relevant theories and ability analysis of international education mode in universities

2.1 Relevant theories of internationalization education model in colleges and universities

Internationalization theory of higher education: It refers to that in the context of globalization, institutions of higher learning actively integrate into and participate in international educational exchanges and cooperation, aiming at cultivating talents with international vision and cross-cultural
competence. The key theories involved in this process include world citizenship education, international educational exchange and cooperation, and cross-cultural education. These theories are interwoven and provide important theoretical basis and practical guidance for the international development of higher education.

The Belt and Road Initiative is a policy initiative aimed at promoting cooperation in infrastructure construction, trade and investment among countries and regions along the routes. To be specific, the "Belt and Road" is the "Silk Road Economic Belt", which connects Asian countries and Europe through Central Asia, West Asia, South Asia and Europe. "One Road" refers to the "21st Century Maritime Silk Road", which is a sea passage from China's coastal areas to South Asia, East Africa, the Middle East and other places.

PESTEL analysis: Political, Economic, Sociocultural, Technological, Environmental and Legal macro-environmental factors have an impact on enterprise development. By assessing these factors, companies can learn about opportunities and threats in the external environment.

360-degree feedback: Also known as all-round feedback evaluation or multi-source feedback evaluation, is a performance management method. This method breaks the traditional mode of superior evaluating subordinates, but people who are closely related to the appraised, including superiors, colleagues, subordinates and customers of the appraised, anonymously evaluate the appraised respectively. At the same time, the evaluators themselves evaluate themselves.

Value Chain Analysis: The value chain refers to the internal and external activities of a company, from the procurement of raw materials to the delivery of final products to customers. Through the analysis of enterprise value chain, we can determine the competitive advantages and disadvantages of enterprises in different links, and find out the key links to enhance competitiveness.

The above theoretical basis provides guidance and support for universities to formulate and implement international education model. In practice, universities can combine these theories to actively explore the international education model suitable for their own characteristics and development needs, so as to adapt it to the background of the "Belt and Road" and enhance the international influence and competitiveness of higher education.

2.2 Ability analysis of international education model of colleges and universities

Under the Belt and Road Initiative, university undergraduates need to develop a global perspective and enhance their understanding of different cultural, social and economic contexts. At the same time, they should have critical thinking skills in order to think independently and analyze complex issues to make informed decisions. Innovation is another key area that enables students to identify and solve problems that drive social progress and economic development. In addition, self-directed and lifelong learning capabilities are essential to continuously adapt to a rapidly changing global environment, enabling them to constantly update their knowledge and skills to remain competitive.

The cultivation of these capabilities will enable Chinese university undergraduates to better participate in international cooperation and exchanges under the framework of the Belt and Road Initiative, meet and understand partners from different cultural backgrounds, and jointly address global challenges. At the same time, it will also be possible to enhance the international competitiveness of China's higher education, attracting more international students and scholars to study, research and innovation in China. Therefore, cultivating comprehensive international literacy is of great significance for the future development of Chinese college undergraduates. This paper holds that the international literacy of undergraduates in Chinese universities requires the following abilities:
2.2.1 Cross-cultural communication ability

Cross-cultural communication skills involve understanding and respecting the values, beliefs, customs and norms of behavior in different cultural contexts, as well as being able to cope with the challenges brought by cultural conflicts and cultural differences. Skills required for effective communication and cooperation in cross-cultural environments include non-verbal communication skills (e.g., postures, facial expressions, body movements, etc.) and verbal communication skills (e.g., metaphors, symbols, hints, etc.).

2.2.2 Foreign language ability

With the continuous advancement of globalization, foreign language ability has become an important part of international literacy of undergraduate students in Hubei Province. They should be fluent in spoken and written English in order to communicate with international students and professors, and to read, understand and write materials in English.

2.2.3 Critical thinking ability

It refers to the ability to think and analyze problems independently, to rationally evaluate the reliability and validity of information, and to make informed decisions in the face of complex situations. This requires students to have the ability to think deeply, analyze and evaluate information, including critically evaluating the evidence and logic of different points of view, understanding and applying a variety of forensic and research methods, etc.

2.2.4 Innovation ability

This refers to the ability to think creatively and solve problems, respond flexibly to changes and challenges, and discover new solutions and opportunities. This requires students to focus on exploration, discover problems, and adopt unique ways of thinking and methods to solve problems. For example, schools can improve students’ innovation ability through entrepreneurship courses, science and technology competitions, and social practices.

2.2.5 Independent learning and lifelong learning ability

This refers to having the habit and awareness of active learning, being able to independently acquire knowledge, develop skills, and continuously improve their learning ability and adaptability. This requires students to have self-management and organizational skills, to be able to develop effective learning plans, to acquire skills in the use of information technology and network resources, and to understand and value the importance of lifelong learning.

2.2.6 Teamwork ability

Teamwork refers to being good at teamwork, being able to effectively cooperate with people from different countries and cultural backgrounds, coordinate the interests of all parties, and achieve common goals. This requires leadership and teamwork, the ability to work with fellow students, faculty, and business people to ensure the successful completion of projects through negotiation, collaboration, and compromise.

2.2.7 Global awareness and social responsibility

Global awareness and social responsibility include concern for and active participation in global social issues, as well as having a sense of social responsibility across national boundaries and
cultural backgrounds. This requires students to understand global issues and make an active contribution to solving them. Students can strengthen their sense of social responsibility by participating in volunteer activities, social practice, charitable donations and environmental protection.

The cultivation of these abilities will enable Chinese university undergraduates to better adapt to the globalized educational and professional environment, help them play an important role in the international arena, promote international exchanges and cooperation, and enhance the international competitiveness of China's higher education.

3. Current situation analysis of international education mode of Wuhan Institute of Technology

3.1 Development status of Wuhan Institute of Technology

Wuhan Institute of Technology, located in Wuhan, Hubei Province, China, is an undergraduate university with engineering as its main feature. The university was formerly part of Wuchang Institute of Water Conservancy and Electric Power founded in 1952. After decades of development and evolution, it was officially renamed Wuhan Institute of Technology in 2000.

Wuhan Institute of Technology attaches importance to practical teaching, has a number of advanced laboratories and training centers, encourage students to participate in scientific and technological innovation projects and practical activities, and cultivate students’ practical ability, innovation ability and practical ability. The school has established close cooperative relations with a number of enterprises and institutions to provide students with internship employment opportunities and entrepreneurship platforms. Wuhan Institute of Technology attaches great importance to international exchanges and cooperation, and has established cooperative relations with more than 100 universities in more than 40 countries. Every year, a large number of teachers and students go abroad for academic exchanges and visits. The school also has an excellent team of teachers, including many well-known experts and scholars at home and abroad and outstanding talents in the field of engineering technology.

Through years of efforts, Wuhan Institute of Technology has achieved a series of scientific research achievements in the field of engineering technology, and has made positive contributions to local economic and social development. The school has been committed to cultivating high-quality talents with engineering practice ability, innovative spirit and social responsibility for the society, and contributing to the progress of engineering technology and social development of the country. The international talent training model of Wuhan Institute of Technology is gradually improving, but there are still some challenges.

3.2 Analysis of the current situation of Wuhan Institute of Technology

The following is an analysis of the application of PESTEL theory to the international talent training model of Wuhan Institute of Technology under the background of "The Belt and Road":

Political: Wuhan Institute of Technology closely follows national policies and is committed to cultivating high-quality talents with an international perspective. Since 2006, the reform of "English + Other Majors" (referred to as "E+") dual-major integrated compound talent training model has been implemented. This model was approved by the Ministry of Education and the Ministry of Finance as a national talent training model innovation experimental area in 2009, and won the second prize of national teaching achievements in 2014. All these are highly recognized for Wuhan Institute of Technology's active response to national policies.

Economics: Wuhan Engineering University actively integrates with the disciplines of
engineering, management science and law, taking advantage of its foreign language major, with the
goal of cultivating high-quality international foreign language talents, it ADAPTS to the
development trend of global Economic integration and meets the diversified demands for talents in
our country's economic development.

Sociocultural: Wuhan Institute of Technology emphasizes the cultivation goal of "high-quality,
interdisciplinary and international" talents, which is in line with the trend of social demand for
talents. At the same time, the school integrates foreign language subjects with engineering,
management, law and other disciplines, which is conducive to promoting social and cultural
exchanges and cross-cultural understanding, and promoting the development and integration of
social and cultural.

Technological: In the process of personnel training, Wuhan Institute of Technology makes full
use of modern information technology to provide students with diversified and personalized
learning resources and practical opportunities, which helps to improve students' comprehensive
quality and international vision.

Environmental: The international talent training mode of Wuhan Institute of Technology focuses
on the cultivation and improvement of students' cross-cultural communication ability, which is
conducive to students' better integration into the cultural environment of the destination country. At
the same time, the university provides students with a broader development platform through
cooperation with foreign universities and enterprises, which is conducive to students' better
understanding and adaptation to the international environment.

Legal: The international talent training mode of Wuhan Institute of Technology conforms to the
requirements of relevant national laws and regulations, and guarantees the legitimate rights and
interests of students. At the same time, the university actively cooperates with foreign universities
and enterprises, and follows relevant international regulations and agreements, showing a good
sense of the legal system and the spirit of international cooperation.

Wuhan Institute of Technology has rich professional resources and geographical advantages in
training international talents, but it needs to strengthen the cultivation of cross-cultural competence
and international influence. At the same time, making full use of national policy support and
cooperation and exchange opportunities can further promote the international talent training
program. However, with the increase of competitors and the emergence of risk management
challenges, there is a need to develop an effective response strategy to address these threats.

3.3 Organizational performance of Wuhan Institute of Technology

Universities need to apply performance management to improve efficiency, because international
talent training is one of the current development directions of higher education, and 360-degree
feedback theory is an effective tool suitable for management and improvement. By synthesizing the
opinions and viewpoints of all parties, Wuhan Institute of Technology can provide a more
comprehensive, objective and accurate way to improve the quality and level of international talent
training, better meet the needs of society for high-quality talents, and improve students' international competitiveness and adaptability. The following is an analysis of the model using
360-degree feedback theory:

3.3.1 Feedback from students

By investigating students' satisfaction with international courses and their effects, the school can
find out whether students' evaluation of specific courses and teachers' teaching methods and
resource support meet expectations. Schools can survey students' experiences with international
exchange opportunities and programs, such as exchange study programs, summer camps, or
academic conferences, to assess the impact of these opportunities on their cross-cultural communication and leadership skills. Students are asked about their perceptions and feelings about interactions between undergraduate and graduate students or between international and local students, and whether they have enhanced intercultural collaboration and understanding through these interactions.

3.3.2 Feedback from teachers

Schools should collect teachers' suggestions and suggestions for improvements in the design and implementation of international curricula, learn about their experiences, approaches and challenges in building intercultural competencies, and explore whether more training and support mechanisms are needed. The school will also look at the school's collaborations with international partners, including joint research, project collaborations and academic exchanges, and assess whether these collaborations contribute to the international perspective and professional development of teachers.

3.3.3 Peer feedback

Schools can also study the international talent training models of other universities inside and outside the province, learn about their practices in curriculum setting, teaching methods, international exchanges, practical experience and other aspects, compare the advantages and characteristics of different schools, and learn from successful experiences and innovative practices. Schools can compare the international talent training experience of high-level universities at home and abroad, understand their successful cases, and think about how to adapt to local characteristics and needs to ensure the cultivation of globally competitive talents.

3.3.4 Feedback from enterprises and industries

The school conducted in-depth interviews and research with representatives of enterprises and industries to understand their views on the internationalization ability and employment competitiveness of college graduates in Hubei Province, the importance they attach to cross-cultural communication, teamwork and international business ability, and their expectations of these skills. The school analyzes the employment situation and development trajectory of graduates to understand their employment competitiveness and integration degree in the domestic or international market. By tracking alumni information, we evaluate the impact of talent training mode on graduates' employment.

3.3.5 Feedback from academic institutions

The University can cooperate and exchange with well-known academic institutions at home and abroad to understand their recognition and evaluation of the international talent training model of universities in Hubei Province, and explore cooperation opportunities in academic resource sharing, joint research projects and personnel exchanges. This paper analyzes the influence and international reputation of Hubei provincial universities in the field of academic research and evaluates the contribution of their international talent training mode to academic development. Schools can learn about the views and expectations of academic institutions on the relevant curriculum, research collaboration and academic exchange.

3.3.6 Feedback from the government

The school can learn about the policy orientation and support policies of the education authorities of Hubei Province for the cultivation of international talents, the degree of support of the
government in terms of capital investment, policy guidance, project application, etc., and evaluate the government's recognition and evaluation of Wuhan Institute of Technology's international talent training model.

Through the application of 360-degree feedback theory, Wuhan Institute of Technology can continuously optimize the international talent training model and achieve continuous improvement and promotion. It can also help schools find problems in time and take measures to ensure the smooth realization of international talent training goals, and further improve students' international competitiveness and adaptability.

4. Analysis of innovative countermeasures for the international education model of Wuhan Institute of Technology

According to the theory of value chain, the activities of enterprises can be divided into two categories, namely main activities and supporting activities. This division method is also applicable to the international talent training model of Wuhan Institute of Technology. Therefore, we divide the innovation strategy of international talent training mode of Wuhan Institute of Technology into two parts: main innovation activities and supporting innovation activities.

First of all, major innovation activities are the most core and key part of Wuhan Institute of Technology's international talent training model, which directly affects the quality and effect of international talent training. The following are specific considerations for the main innovation activities:

4.1 Internal Procurement

In the mode of international talent training, Wuhan Institute of Technology needs to actively introduce high-quality international teaching materials and advanced teaching resources, as well as adopt international advanced educational technology. In these ways, it can ensure that the school has access to high-quality educational resources, so as to continuously improve the teaching quality and internationalization level. For example, schools can procure internationally renowned teaching materials and reference materials so that students can have access to cutting-edge international knowledge and technology.

4.2 Production and Operation

In the teaching process, Wuhan Institute of Technology needs to adopt diversified teaching methods and forms to meet the needs of international talent training. Specifically, schools can adopt international curriculum, bilingual teaching, practical teaching and other ways to teach. In addition, the school can also invite internationally renowned experts and scholars to give lectures and lectures, so that students can be exposed to different teaching styles and ideas. These measures place students in an international learning environment and help to develop their international perspective and intercultural communication skills.

4.3 Sales and marketing

Wuhan Institute of Technology needs to actively promote and publicize its own international talent training model to attract more domestic and foreign students to apply for the school, and establish cooperative relations with foreign universities to attract more international students to exchange and study on campus to increase international exchange opportunities. For example, schools can display their international characteristics and achievements through activities such as campus cultural festivals to attract more students from home and abroad to study.
4.4 After-sales Service

For international students, Hubei provincial universities need to provide comprehensive international student support services. It includes accommodation arrangements, life counseling, cultural adaptation and other aspects of help, as well as providing post-study career guidance and employment support for international students. The purpose of these support services is to ensure that international students receive good support and development opportunities during and after their studies. For example, schools can set up special international student service agencies to provide one-stop service support for international students to solve various problems they encounter in study and life. At the same time, the university can also actively carry out cooperation with foreign universities and enterprises to provide more internship and employment opportunities for international students.

Secondly, supporting innovation activities in the school value chain can be analyzed as follows:

(1) Learning resources support: In order to meet the academic needs of international talent training, Hubei provincial universities provide rich learning resources for international students. The University library provides books and literature resources in multiple languages, and actively carries out international academic exchange activities, inviting internationally renowned scholars to give lectures to broaden students' academic horizons. In addition, the school also provides advanced laboratory facilities and technical support to safeguard the needs of students for scientific research and practice.

(2) Human resource management: The school can support the needs of international talent training by recruiting, training and motivating a high-level team of teachers, providing teachers with international background and cross-cultural communication experience, and providing professional teams with international communication and career guidance for students. For example, schools can strengthen the introduction, training and incentive of teachers, encourage teachers to participate in international curriculum development and teaching practice, and provide more international education resources and services.

(3) Technology development: relevant departments and departments can actively promote the innovation and application of educational technology, including online education platforms, virtual laboratories, etc., to improve teaching effects and teaching experience. For example, schools improve teaching quality and efficiency by building modern teaching facilities and platforms and using new educational technology means, such as "Internet + education" and "mobile + education".

(4) Social exchange and cultural integration: Hubei Provincial University focuses on social exchange and cultural integration between international students and Chinese students. The school organizes various cultural festivals and international friendly basketball games to provide a platform for students to exchange ideas. In addition, the school has established an international student association organization to encourage international students to participate in it, promote their exchanges with Chinese students, and enhance mutual understanding and friendship.

Thus, through the above analysis of value chain activities, we can see the core competitiveness and value-added points of universities in Hubei Province in the mode of international talent training. Based on these advantages, we should formulate corresponding strategies and measures to continuously improve the quality and level of international talent training. At the same time, we also need to pay close attention to the needs of students and market changes, establish close cooperation with international universities and enterprises, and continue to optimize and improve the international talent training model to meet the changing international education needs.

5. Conclusion

The international talent training model of universities in Hubei Province can be realized through close cooperation between universities, industry and the government. The university provides rich educational resources and a good learning environment, the industry provides practical
opportunities and career development platforms, and the government provides policy support and international exchange platforms. The cooperation of these three main bodies will effectively promote the cultivation of international talents in universities in Hubei Province, and cultivate talents with international vision and cross-cultural communication ability.

International talents are the human resources support to promote the construction of the "Belt and Road", and increasing the efforts to cultivate compound multi-language talents can solve the problem of structural shortage of international talents. However, the current research mainly focuses on theoretical speculation and does not give validity conclusions through empirical research.

In order to improve the international talent training model, its effectiveness can be evaluated through data collection and investigation and analysis, and comprehensive performance feedback can be repeated implemented based on the evaluation results, so as to improve the employment rate of students, improve the quality of talent training, enhance the competitiveness of students, and promote the integration of industry and education.

In view of this, this paper makes a comprehensive analysis of the development status of Wuhan Institute of Technology and the problems existing in the process of international talent training, summarizes the organizational performance, value chain improvement and other aspects, and puts forward corresponding solutions.

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