

Exploring the Mechanism of Credit Banks and the Construction of China's National Qualifications Framework (NQF)

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Abstract

This study aims to establish a credit bank system that provides learners with a new education system for accumulating and transferring learning outcomes. Also, it lays the foundation for the construction of national qualification frameworks. This article firstly reviews and compiles the experience of credit bank system construction in typical foreign countries and points out that the credit bank system promotes the organic articulation between different forms of education by providing a platform for the authentication and transfer of learning outcomes. Secondly, the article analyses the lessons accumulated during the construction of credit banks in different regions of China. It concludes that insufficient top-level design and unsmooth operation mechanisms are the outstanding problems. Finally, the article conceptualizes the connotation and basic principles of China's national qualification framework and argues that the relationship between flexibility and standardization should be handled well to create a framework of open sharing, multi-dimensional synergy, and dynamic updating in order to support the healthy development of the credit-banking system and to promote the modernization of education.

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Introduction

The four new constructions based on the new era of educational development needs, the concept of credit bank has been enriched and developed for the development and improvement of credit banks in the new era provides a forward-looking theoretical perspective; credit bank to promote the four new construction to the practical reality of the critical hand. International research on credit banking can be traced back to the 1950s, such as the earliest European credit transfer system (ECTS), which provides a channel for the free flow of talent in Europe and Mediterranean countries and the free transfer of credits for learners' qualifications between different regions or countries. China's credit banks, which sprouted at the turn of the 21st century, were initially applied to vocational education in a top-down policy-driven and bottom-up practical development mode and have since been gradually applied to higher and distance education, adult education, continuing education, and social training. In 2010, China promulgated the Outline of the National Medium- and Long-Term Education Reform and Development Plan (2010-2020), which proposed the establishment of a credit bank and the construction of a system for accumulating and converting continuing education credits, which promoted the development of credit banks in China, and since then China's credit banks have entered a period of rapid development. Subsequently, in April 2020, the Inter-Ministerial Joint Conference on Vocational Education under the State Council of China voted to adopt the "Working Procedures for the Construction of National Credit Banks in Vocational Education (for Trial Implementation)," which clarified the corresponding competent organizations, service recipients, operation processes and other critical main elements of the national credit banks in vocational education from the perspective of top-level design. So far, the

construction of credit banks in China has been formally coordinated and promoted nationally. The Action Plan for Improving the Quality and Excellence of Vocational Education (2020-2023), jointly issued by the Ministry of Education and nine other departments in September 2020, specifies three critical tasks for improving the quality and excellence of vocational education, two of which are related to the construction of credit banks, one of which is to improve the system of vocational education for lifelong learning of all people. The other is to accelerate the construction of the vocational education system. One is to improve the vocational education system to serve lifelong learning, and the other is to accelerate the construction of a national credit bank for vocational education, a program document for promoting the construction of a credit bank for vocational education.

Local credit banks in China have developed rapidly in the past two decades and have carried out many practical explorations with local characteristics. For example, the National Open University Credit Bank and the Shanghai Lifelong Education Credit Bank established in 2012, the Jiangsu Lifelong Education Credit Bank established in 2013, the Yunnan Credit Bank Higher Vocational Colleges and Universities Demonstration Alliance and the Zhejiang Credit Bank established in 2015, and the Chongqing Lifelong Learning Credit Bank established in 2019, etc. The number of account holders of the credit banks, the number of learning achievements, and the number of cooperating institutions and radiation. The number of credit bank account holders, the number of learning achievements, and the number of cooperative institutions and radiated regions continue to gain breakthroughs. Different types of social institutions, such as universities, social organizations, and industrial enterprises, have also tried to establish credit banks suitable for their own needs in carrying out educational activities, such as credit banks of university alliances, community credit banks, and internal credit banks of

enterprises, etc., and the categories of credit banks are becoming richer and richer day by day. At the same time, the development of new information technology, such as blockchain, has provided impetus for the construction and development of credit banks. However, the construction of credit banks in China is not mature, and many deficiencies restrict the effectiveness of credit banks. For example, China's credit-banking system has not yet formed a national qualifications framework. It has failed to achieve interoperability and authentication between different levels and forms of educational achievements and a low degree of social acceptance of credit-banked learning outcomes. Against the above background, it is crucial to clarify the superiority and innovativeness of the credit banking system in the context of the "Four New Constructions" and to build a scientific credit banking operation mechanism. This paper aims to provide a reference for the construction of China's credit banking system by exploring the theory of the international credit banking system and the comparative study of the qualification frameworks of different countries.

Literature review

Conceptual of Credit Banks

The academic community has not yet formed a unified conceptual standard for credit banking, and the perception of the origin of the concept of credit banking is also controversial. However, all believe that the primary function of credit banking is reflected in the accumulation and transfer of credits. The British government's Department of Education and Science (now known as the Department for Education and Skills) accurately described the importance of credit transfer as early as 1979, arguing that the transfer of credits is an essential process through which learners who have obtained various types of qualifications or part of the qualifications and learning experiences can be adequately certified or obtain the corresponding credits, eliminating the tediousness of repeated

learning and inefficiency, and improving the efficiency of the learners' accumulation of educational experience and acquisition of relevant qualifications. The efficiency of educational experience and the acquisition of relevant qualifications is improved (Li & Zhang, 2021). The Director of the Institute for Higher Education Policy (IHEP) in the UK has suggested that this could be achieved by making qualifications and learning experiences recognizable or credible without duplication and inefficiency. The Director of the Institute for Higher Education Policy (IHEP) in the UK suggests that credit transfer in higher education can be understood as 'knowledge currency,' making credit banking less challenging to understand; the goal of most learners is to build up a currency of knowledge that can be converted into relevant certificates at the end of their studies (Zhou et al., 2022). Countries around the world do not have the same name for credit banks; for example, Europe calls it Credit Transfer and Accumulation System (ECTS), Canada and the United States call it credit transfer, Australia calls it Qualifications Framework (AQF), and South Korea calls it Credit Bank (CBSS), but all of the above countries believe that the accumulation, exchange, and transfer of credits are the essential functions of credit banks. Important functions. This paper prefers the conceptual interpretation that credit banks belong to a kind of education system that combines a bank-like management model and a corresponding education management organization. It is an education system that recognizes the learning outcomes that learners have obtained through different ways, accumulates and converts all kinds of learning outcomes, and certifies the learners who have achieved the qualification standards according to the relevant standards. In addition, the Central Committee of the Communist Party of China (CPC) and the State Council proposed the establishment of a sound national credit bank system in the China Education Modernization 2035 triggered by the CPC Central

Committee and the State Council in 2019, explicitly adopting the expression “credit bank system.”

(2) Rationale for Credit Banks

Engels considered theoretical thinking an indispensable element in people's climb to the heights of science (Li et al., 2019). Therefore, the study of the credit bank should also clarify its theoretical roots. The emergence of the credit bank is neither the result of someone's whim nor the product of administrative instructions. However, it has a profound theoretical basis, only a profound grasp of the theoretical basis of the credit bank to promote the credit bank's healthy development to avoid losing their way.

The first is the credit system and freedom of learning; Germany's then Minister of Education Humboldt first put forward the "freedom of learning" terminology, that the freedom of education and freedom of learning is the basic principle of colleges and universities, for the first time the importance of the freedom of learning is equivalent to the freedom of the learner, the introduction of the practice of the form of the seminar, the situation of students in the teacher's guide Under the guidance of teachers, students carry out independent academic exploration activities, from passive recipients to active explorers, the freedom of learning into practice, since then the freedom of learning began to be implemented in countries around the world. The second is the theory of credit bank and market economy. Chinese scholars and scholars in other countries do not have the same understanding of "market economy." some scholars define the market economy as the economic operation situation and method to adapt to the needs of socialized mass production and the nationalization of the market to give full play to the function of market allocation of resources (Jaspers, 1991). Some scholars define the market economy as the economic situation and method of economic operation to fulfill the

function of market resource allocation (Jaspers, 1991). Some scholars believe that the market economy is mainly based on changes in market supply and demand through the price regulation of the allocation of resources to guide the economic operation of a resource allocation method (Shi, 2004). The market economy constrains the study branch. The learning branch is subject to the development of the market economy, but also the higher education initiative to adapt to the performance of the economic system; the market economy, in many ways, provides a theoretical basis for the development of the credit bank. The third is the theory of credit bank and educational equity. As early as in ancient China, the educator Confucius put forward the famous ideas of "teaching without class" and "teaching according to ability," the earliest description of educational equity in China. The concept of equity in education is also embedded in the educational ideas put forward by Westerners Palatine and Aristotle. However, equity is not the same as equality, and the two have a clear difference. Equity allows and recognizes reasonable differences under satisfaction, incentive, satisfaction, and security (Hou, 1994). Equity in Education According to the theory of equity in education, equity in education should be concerned with giving all people equal access to education rather than undifferentiated educational resources. Equality in education, like equality in other social domains, can be divided into three aspects: equality of starting point, equality of process, and equality of effect (Hua & Jin, 2006). The starting point of equality refers to the fact that people have equal access to education. Equality of starting point means that people, regardless of gender, race, origin, and economic status, can start a learning career, which can also be called equality of access. Equality of process refers to maintaining educational equity through specific systems or policies in the reality of unequal educational starting points, such as the teaching and learning process and the interaction between teachers and students at the micro level of equality

of opportunity. Equality of outcome means that students should receive substantial equity in terms of academic achievement, which can be understood as equality in the quality of education.

After sorting out the contents of theories on educational equity in China and the West, it can be found that realizing the unity of the rationality and fairness of the education system is an effective way to achieve educational equity. The credit bank is conducive to the promotion of the starting point of fairness, mainly reflected in all people according to their actual situation or needs, flexible, free choice to the credit bank for learning, including secondary school graduates, including intermediate drop-outs of college students and working people, etc., each group can be through the credit bank to obtain the required knowledge and skills, and by the appropriate standards to obtain the certification of the results of the learning process. Credit banks help to promote fairness in the education process, which is mainly reflected in the fact that they take complete account of individual differences, enabling students to choose learning content or learning methods more suited to their needs based on their differences, fully respecting their autonomy and restoring their status as the mainstay of learning.

Mechanisms for International Credit Banks

(1) A Framework for Credit Transfer Mechanisms at U.S. Universities and Community Colleges (Wang & Liu, 2011)

In the United States, credit transfer mechanisms, a core component of the higher education system, have developed a sophisticated system that allows students to move freely between different educational institutions (Qu & Jin, 1993). The basic framework of this mechanism is based on agreements between educational institutions and a core curriculum coding system. These transfer agreements ensure that students can transfer to a four-year university based on their

individual needs after completing a community college program and transfer the credits they have already earned, thus avoiding the need to repeat the same coursework (Leung, 2020). The key to this credit transfer mechanism is that it allows students to transfer credits to a four-year university based on individual needs. The key to this credit transfer mechanism is the recognition by the transferring institution of the community college's course offerings and credit structure (Du & Wu, 2020). The key to this transfer mechanism is that the transferring school recognizes the community college's teaching and credit structure. Credit transfer between community colleges and universities in the U.S. education system is not just a simple administrative process but a complex framework that involves collaboration between multiple systems. Transfer Information Systems (TIS) play a critical role in providing all the information needed for credit recognition, including both educational institutions' policies, regulations, and implementation rules regarding credit recognition (Chen et al, 2014). In addition to the above structures and systems, collaboration among multiple systems is a critical factor for the successful operation of the MCR mechanism. Educational institutions must collaborate to ensure effective communication and coordination among education systems. This collaborative framework ensures a smooth transition of students from community colleges to four-year universities and a continuity of learning.

The credit transfer mechanism in the United States reflects the inclusiveness of education and support for students' individual career development and academic pursuits. This system not only provides students with diverse educational pathways but also ensures the openness and flexibility of the education system by guaranteeing that educational quality and academic standards are maintained. Through this integrated, multi-layered collaboration, the U.S. education system has succeeded in providing solid support for student's academic and career

development while also providing a model that can be applied to education reform in other countries around the globe (Qu & Jin, 1993).

(2) Operational Framework of Credit Accumulation and Transfer Mechanism in the UK Higher Education System

The UK higher education system has adopted a credit framework that allows for the accumulation and transfer of credits in line with the European Credit Transfer and Accumulation System (ECTS) standards. In the UK, credits are quantitative representations of learning outcomes, reflecting the quantity, quality, and level of learning. In most UK frameworks, each credit represents a standard learning time, with 10 hours equivalent to one credit. The UK credit system promotes student mobility, lifelong learning, and flexibility in learning pathways. It allows for the recognition and transfer of learning outcomes across institutions, programs, and levels of study, promoting transparency and understanding in the European Higher Education Area. Credits can be accrued towards qualifications, which are awarded when the appropriate amount and level of credit is achieved. The UK's credit framework is designed to be inclusive, supporting a diversity of learning pathways and meeting the needs of a range of learners. In addition, the UK credit system has robust quality assurance mechanisms to ensure the validity and reliability of the credits awarded. This includes clear criteria for the allocation of credits for learning activities, the assessment of learning outcomes, and the transfer of credits between contexts. This credit framework is critical to enabling learners to progress through education and training in a flexible way responsive to individual needs and the changing demands of the labor market.

(3) Framework for the operation of the European Credit Accumulation and Transfer Mechanism

The European Credit Transfer and Accumulation System (ECTS) is based on quantifying the learning process and grading learning outcomes for credit recognition. The system has three main features: firstly, it adopts a credit hour system, with a clear credit standard forming the basis for credit exchange between countries with different cultural backgrounds and education systems. Sixty credits of formal study time per academic year are usually equivalent to 1,500 to 1,800 hours of study per academic year. After conversion, one ECTS credit equals 25-30 hours of study. Secondly, the allocation of credits is based on the coursework load, the uniform credit allocation method used in Europe. Thirdly, ECTS defines the results of an examination or assessment using a grading scale, which divides learners' learning outcomes into seven levels. Learners are first classified into the pass-and-fail groups. Learners in the pass group are further subdivided into five grades, with the top 10 percent of learners being graded A, the next 25 percent B, 30 percent C, 25 percent D, and the last 10 percent E. Students in the fail group are subdivided into two groups, with group FX being those who have failed but who are required to complete a certain amount of study before credit is given. Group F comprises those required to undertake a significant amount of study, and Group F comprises failing students.

(4) Mechanism of Lifelong Education Credit Bank System in Korea

The mechanism of Korea's lifelong education credit banking system not only converts credit data but, more importantly, the value of credits. The traditional credit database is an unilaterally maintained information system, which enables the transfer function of credit data but makes it difficult to transfer the value of credits. The credit bank information system based on blockchain technology introduces the consensus mechanism of multi-party maintenance, which realizes multi-party

verification and maintenance in the input, maintenance, and output of credit data, forming a decentralized database management mode that enables the simultaneous transmission of credit information and credit value. From the viewpoint of technical principle, the transmission of credit data value needs to achieve the quantitative proof of block information through P2P network communication technology between different nodes, generating the value trust required for credit data in the process of peer-to-peer transmission. Based on the consensus rules, the records and certifications related to credit data are synchronously integrated to form the credit conversion to achieve the smooth connection of the learner's credit records, certifications, and conversions and to reflect the value of credits in the process of decentralization, intelligence, and automated compliance.

(5) Guarantee mechanism of foreign credit-banking systems

The safeguard mechanism of the credit bank system in foreign countries is implemented through four main aspects: legislative safeguard, improvement of the operation mechanism, choice of the operation mode, and improvement of the development path. For example, the United States, South Korea, and Australia support the construction and operation of credit banks through national legislation (Zhou & Chen, 2020). Improvements in the operation mechanism of credit banks cover the following areas. The improvement of the operation mechanism of credit banks covers several sub-systems, including professional training, credit storage, accumulation, and mutual recognition sub-systems, as well as information platforms, etc. (Du & Wu, 2020; Chen et al., 2014). The operation mode reflects the country's decision on the credit bank's operation mode. The operation mode reflects the national choice of qualification framework, federation, or national legislation based on their education and social needs (Yang, 2013; Yang, 2017, and Liu, 2018).

The development pathway, on the other hand, focuses on constructing a stable and flexible system. The improvement of the development path focuses on constructing a stable and flexible institutional framework to unify the recognition criteria, promote the integration of credentials, and ensure educational equity and the credibility of credit banks [19]. [19] [20]. The development pathway focuses on building a stable and flexible institutional framework to harmonize recognition criteria, promote credentials integration, and ensure credit banks' educational equity and credibility (Liu, 2018; Peng, 2020)

(6) Evaluating and Learning from Foreign Credit Bank Mechanisms

The credit-banking system in Western countries has an earlier origin, a faster development speed, and a higher degree of maturity. The creation and practice of China's credit bank system also benefit from the advanced experience of foreign credit bank system construction. International credit bank construction experience is vital in developing and improving China's credit bank system under the perspective of the four new constructions in the new era. It is also a favorable external condition to guarantee the smooth operation of China's credit bank system under the perspective of the four new constructions. Therefore, this chapter evaluates and draws on the foreign credit bank system by reviewing the international credit bank construction experience. Meanwhile, the construction of credit banks in China has also been actively practiced, laying an essential foundation for developing and improving the credit banking system under the perspective of the four new constructions in the new era. Moreover, this chapter also reviews and combs through the construction experience of China's credit banks and evaluates and draws on the domestic credit banking system.

Exploring the Construction of Regional Credit Banks in China

(1) Shanghai Lifelong Education Credit Bank

The Shanghai Lifelong Education Credit Bank is an innovative education system designed to meet individuals' learning aspirations and needs at different stages of growth. It provides a channel for mutual recognition and conversion of credits in general colleges and universities and a platform for mutual recognition of educational achievements between regions. By combining the practical experiences of credit banks at home and abroad, this paper points out that the Shanghai Lifelong Education Credit Bank supports everyone to become a lifelong learner, promotes the construction of a national qualification framework, optimizes the path of credit transfer for 1+X certificates, establishes an inclusive alliance of credit-banking schools, and strengthens the synergistic management system of the relevant subjects. In addition, it focuses on innovative institutions and policies to stimulate the vitality of the credit banking system. The superiority of this system is mainly reflected in its suitability for the development of continuing education in higher education institutions in China in the new era, as well as the promotion of educational equity and the construction of an "overpass" for lifelong education. The construction of the Shanghai Lifelong Education Credit Bank is coordinated by the Committee for the Promotion of Learning Society and Lifelong Education, which is directly under the responsibility of the Education Commission, showing a clear difference from other regions. Its organizational structure includes a Credit Bank Management Committee set up by the education administration to lead the construction of the Credit Bank directly and a Credit Bank Management Centre to undertake the entity's operation. It is implemented and operated through the Open University, and credit bank branches and sub-centers are set up according to administrative regions or the Open

University system to build a region-wide credit bank service system. The credit bank service system will be constructed throughout the region.

(2) National Open University Credit Bank

The credit-banking mechanism adopted by the National Open University is based on a "learning outcomes framework."^[138] The mechanism is based on a "learning outcomes framework" geared towards academic education. However, it does not yet fully incorporate non-academic education and informal learning outcomes into its scope of operation. In some places, there are problems of one-sided understanding and practice of the mechanism; for example, some understand the role of credit banks to be only for acquiring higher qualifications or vocational qualifications, ignoring their function in identifying, evaluating, and accrediting both formal and non-formal learning outcomes. In addition, there are also problems of ambiguity and lack of clarity of authority and responsibility in the way governing bodies position themselves about teaching institutions, accreditation bodies, and training organizations, which leads to overlapping or missing functions and is not conducive to the healthy development of the credit banking system. The credit banking system is not conducive to the healthy development of the credit banking system (Yang, 2013).

(3) Safeguard mechanisms for the domestic credit-banking system

The guarantee mechanism of the domestic credit bank system includes improving legislation, optimizing the operation mechanism, choosing the model, and analyzing the path. Firstly, the improvement of legislation is the key to the guarantee mechanism. For example, the United States, South Korea, and Australia provide legal protection for credit banks, which provides a reference for developing credit banks in China. [10] In 2019, China's Ministry of Education released the Revised Draft

of the Vocational Education Law of the People's Republic of China, proposing for the first time the establishment of a national credit bank for vocational education at the national legislative level (Qi & Liu, 2021), the newly revised vocational education law further addresses critical issues in the construction of credit banks (Sun et al., 2013).

In terms of operation mechanism, the credit bank draws on the operation mode of traditional banks and forms an operation mode centered on credits. The construction of the credit bank is a collaborative process of multi-interested parties, involving the construction of several sub-systems, such as professional personnel training, credit storage, credit accumulation, and mutual recognition of credits. Improving information platforms, such as portals, working platforms, credit platforms, authentication platforms, conversion platforms, etc., is also part of the operation mechanism. In addition, the operational mechanism of credit banking also includes innovations in the credit system, course selection system, evaluation system, certification and transfer system, etc. (Du & Wu, 2020)

The construction and development of credit banks also require links and cooperation between universities and various industries and enterprises to promote the innovation of the mechanism of industry-teaching integration [84]. Together, these measures form the basis for the healthy development of the credit bank system, ensuring the effective operation of the credit bank, which in turn promotes the rational allocation and utilization of educational resources.

The Connotation and Construction of China's National Qualifications Framework

(1) Context of the national qualifications framework

The National Qualifications Framework (NQF) is part of the credit banking system, which has not yet been fully developed in the Chinese education system. In China, there are differences in the understanding of qualification frameworks for credit banks in different regions; for example, the Shanghai Municipality adopts the "Credit Bank Qualification Framework," while the Guangdong Province Lifelong Education Credit Bank adopts the "Lifelong Education Qualification Framework." These frameworks focus mainly on academic education, while the accreditation and accumulation of non-academic education and non-formal learning outcomes have not been fully incorporated. The failure of some credit bank administrators to clarify their relationships with teaching units, accreditation bodies, and training organizations, resulting in overlapping or missing functions, is a problem faced by NQFs in practice. The objective of the NQF is to clarify the mechanisms for the accreditation and accumulation of learning outcomes and to ensure that credits can be transferred between different forms of education. It aims to promote equity and transparency in education while responding to the learning needs of society and individuals. However, owing to the lack of uniform standards and policy support, China's national qualifications framework is still at the stage of exploration and improvement.

(2) Basic principles of national qualifications frameworks

The construction of China's national qualifications framework has made some progress regarding experience and results but still faces several challenges and shortcomings. First, there is a lack of legal safeguards and specialized organizational structures at the national level. Both are fundamental to the smooth functioning of any educational mechanism. For example, the Difficult Areas Education Board (SREB) in the United States provides appropriate legal safeguards and policy support, and the UK Qualifications and Credits Framework has its official governing

body and the Professional Skills Council. In contrast, China's credit banking has no relevant organizational structure and legal regulations at the national level, making it difficult for the credit banking system to expand effectively (Lu et al., 2013).

Secondly, the national qualifications framework is still being established. Although China's provinces and cities have engaged in standards-driven practices in the construction of credit banking systems, and the "qualifications framework + units of competence" model of the National Open University Credit Bank provides opportunities for results transfer, further planning and integration is needed to build a unified nationwide interoperability standard and system. Different regions or institutions have different understandings and focus on the learning outcomes of credit banks and adopt inconsistent learning outcomes frameworks and numbers of qualification levels, which leads to obstacles in the cooperation and interface of credit banks. [18]. The learning outcomes framework and the number of qualification levels adopted by different regions or organizations are differently understood and focused, leading to barriers to collaborative credit banking (Yang, 2017).

At present, although the construction of the qualification standard system of China's credit banks has drawn on foreign experience, it lacks in-depth theoretical analysis and improvement in light of China's actual situation, and the outcome orientation of the qualification standard is not effectively compatible with the qualification framework of China's credit banks. For example, the credit bank of China's National Open University was established mainly to serve continuing education, and although its framework includes academic education learning outcomes, non-academic education learning outcomes, and learning outcomes without a particular form of learning, the seniority level correspondences of non-academic education learning outcomes, especially learning outcomes without a particular form of learning, still need to be clarified and

improved. [18]. However, there is still a need to clarify and improve the relationship between non-academic learning outcomes, especially those without a particular form of learning.

(3) Building open and shared national qualifications frameworks

China's construction of national qualifications frameworks, and in particular the practice of credit banking systems, relies mainly on the cases of the Shanghai Lifelong Education Credit Bank and the National Open University Credit Bank system. The Shanghai Lifelong Education Credit Bank aims to serve the citizens of Shanghai and focuses on the recognition, accumulation, and transfer of credits for continuing education. This system includes academic education, vocational training, and community education for the elderly, providing citizens with management and services for learning achievements and promoting the pace of building a new learning society. It is characterized by establishing a unified system of standards and precise methods for recognizing, accumulating, and transferring learning outcomes and creating personal learning files for learners to achieve the long-term accumulation of learning outcomes.

On the other hand, the National Open University Credit Bank, as a national educational service organization, undertakes the task of accrediting, accumulating, and converting learning outcomes and has formed an operational platform by establishing a learning outcomes framework and a system of standards. This mechanism manages various learning outcomes at the national level and is a significant attempt to explore establishing a national qualifications framework. The system adopts a "qualifications framework + competency unit model," which facilitates the mutual recognition and transfer of learning outcomes, meets lifelong learning needs for all, and plays a vital role in constructing a learning society.

Conclusion

This study examines the development, underlying principles, and execution of credit banks, emphasizing their importance in promoting educational adaptability, inclusiveness, and effectiveness. We emphasize the significance of mechanisms such as the European Credit Transfer System (ECTS) and the gradual formation of credit banks in China in the context of contemporary educational reform. Credit banks play a vital role in facilitating learning identification, accumulation, and transfer across different educational and professional fields. They support educational freedom, fit with market economies, and promote equality. The democratization of education and professional advancement highlights the revolutionary power of credit banks in education.

The study demonstrates a dedication to incorporating global best practices into local settings by analyzing foreign models and China's efforts, such as the Shanghai Lifelong Education Credit Bank and the National Open University Credit Bank. There are still obstacles that need to be addressed, such as the need for a cohesive national credentials system and the need to overcome operational and acceptability challenges. The credit bank approach is crucial in achieving a society that promotes lifelong learning, where educational fairness and adaptability are concrete results. This research provides valuable insights into the evolution of credit banking systems, suggesting a comprehensive plan for future educational reforms that may promote a more inclusive and dynamic global educational environment, particularly emphasizing upgrading China's educational framework.

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