

Yuntai Miao's Influence on Education and Talent Cultivation in Modern Yunnan

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Keywords: Yuntai Miao; Yunnan; education; talent training

Abstract: As a modern entrepreneur of Yunnan Province, southwest of China, Yuntai Miao who used to study in the United States had to face the poor quality and enterprise management disorder of Yunnan Tin Company, and lack of talent and backward in thinking. In order to change the current situation of backward technology and lack of talents at that time, he seek foreign industrial technical talent to change the backwardness of enterprises and developed local education and talent training to cultivate a large number of personnel for the modernization. The measures he has taken in the introduction of technical talents and the training of local talents have played an important role in the modernization of Yunnan, and had achieved remarkable positive results.

1. Introduction

Yuntai Miao (1894-1988), who was born in Kunming, Yunnan Province, southwest of China, was a famous entrepreneur and financier in modern Yunnan. He studied in the University of Minnesota in USA among 1913 and 1918. After returning hometown from abroad in 1919, he decided to promote the development of local economy and education through introducing advanced technology, strengthening modern education and talent training to completely change the situation of backward technology and lack of technical talents in Yunnan.

2. The reason Yuntai Miao attaches great importance to cultivating modern talents

2.1 Deficient in talents severely

Yunnan is located in the southwest border of China, and its social economy is relatively backward. Due to the geographical constraints, there are many old sayings in Yunnan, the train can run faster than the car”, “the railway can not connect the domestic but to the abroad”, indicating that the connection between Yunnan and the mainland in modern times was invisible due to the constraints of geographical environment. The geographical division not only limits the contact with the mainland, but also hinders the exchange of information and closes the minds of the people, resulting in a widening gap between Yunnan and the mainland in terms of social economy and personnel training.

2.2 His overseas learning experience made him realize the importance of talents

Yuntai Miao was one of the earlier overseas students sent by the government of Yunnan Province in the early years during the Republic of China. He began to study in the United States in 1913 and graduated from the Department of Mining and Metallurgy of the Minnesota University in 1918, majoring in mineral deposit distribution. After returning to hometown in 1919. Although many relatives and friends advised him to take a government job, he considered he should serve the society and change the social backwardness of his hometown, and hoped to play a due role in the social and economic development. He believed that “he should do his best to work for Yunnan with what he had learned” [1], and volunteered to request Jiyao Tang, the governor of Yunnan Province, and put what he had learned to serve Gejiu County tin plant which is at the southern tip of Yunnan-Guizhou Plateau. Faced with the confusion of enterprise management and backward technology problems in

the company, he realized the lack of existing technical talents, which made him urgent to cultivate modern technical talents.

2.3 Encountering problems in enterprise management and backward technology

Yuntai Miao was appointed in 1920 by Tang Jiyao as the manager of Gejiu Tin Mining Company, which had many problems in debt crisis and enterprise management at that time. These problems were far more seriously than he could imagine.

2.3.1 Backward in modern technology of production

Before he came to the company, Gejiu Tin Company relied on the old smelting methods for 98% of its tin production. "With the exception of the Tin Company, all the other factories adopt the local method of mining and smelting" [2]. Due to the lack of modern excavation technology, mining and smelting process still follow the old method, the tin produced with the low quality efficiency and poor product quality, purity can not meet the international standards of direct access to the international market. Gejiu export of tin long-term manipulated by foreign and Guangdong businessmen, the average loss of about 30 pounds per ton, about 10% -15% of the market price for its low quality which led to its lack of market competitiveness in the international market [3].

2.3.2 Existing problems in production and management

Disorder in production management with the limitations of technology. Most of the tin mines in Gejiu minery at that time were mined manually, most of operating mode was mostly extensive production and management. The mining and smelting processing, and other aspects had been stuck in a rut, with little improvement. Even if advanced German mining equipment had been imported, it could only be frustrated by local tin miners and gentry so as to forced to be set aside [4]. As a result, its economic growth is only in the way of extensive management style. In addition, the limitation of smelting technology, the quality of Yunnan tin is difficult to be improved.

2.3.3 Dependence on foreign technology

Gejiu Tin Mining Company has been the largest local mining industry and one of the most advanced equipment in the enterprise, but because of poor management and lack of technical personnel, and anything is under control by inferior German engineers Robert Perrault. Although the aerial cables had been installed, the quality of the tin produced was not uniform and there was not enough ore to meet the needs of the washing plants. Therefore, the company's imported equipment lay idle [5], the imported machinery purchased for one million million is considered to be worthless until 1921. The low quality of tin has prevented Yunnan tin from being sold to the international market directly, so the price has to be controlled by intermediary businessmen.

Through a period of in-depth and detailed understanding and on-site experience, he gradually found the main problems in production are capital and technical problems. With the help and introduction of the British Consul General in Kunming, Mr. James Eder, a British retired tin smelting engineer with over 40 years of working experience was hired at great expense, finally solve the existing technical problems.

2.3.4 Backward in ideas

During the development of the company, it also planned to buy modern machinery for mining production. "Mr. Kuisheng Wang really made a lot of effort" [5], he personally went to South Pacific countries for investigation, and then ordered equipment from German Merchant and foreign banks. The machinery and equipment purchased by Gejiu Tin Service Company from abroad should have played an important role in the mining of Gejiu tin mine and should changed the degree of modernization in the tin production. However, the result was backfired. Due to the use of the machine is bound to result in a significant reduction in the demand for mining workers, which would harm the interests of those mining owners who used the old method, so they resisted and obstructed by the local conservative forces and tin miners. At that time, the team of mining workers in the Gejiu tin

plant was large-scale. “The population of the county was only 30,000, but there were about 100,000 miners in the peak period of tin production, and even when tin production was low, 6,000 to 8,000 people could be used” [1].Therefore, modern mining machinery is put into wide use, a large number of miners who make a living from mining will be faced with the crisis of unemployment.

The old way of the mining is the main adverse impact, the use of modern machines can let's miners took out a large amount of the money to buy machinery, the local people's ignorance and fear of the machine makes mining owners who do not want to use the newly mining equipment, “due to the local gentry and conservative opposition to the miners did not play a proper role”.So the budding ideas of modernization were stifled, and the new machines bought back would inevitably become a pile of scrap metal.Only when Yuntai Miao came to took over the Gejiu Tin Company, and part of the scrap metal plays its real role.“The modern tin mine production equipment introduced by Kuilsheng Wang was finally put into practical use by Yuntai Miao after being idle for ten years” [5].

But Gejiu Tin Company in general is still relatively backward in the technical means of tin ore production,“the company smelting tin with new methods, in addition to local methods” [3].

3. The education and personnel training measures taken in the course of Yunnan's modernization

3.1 Attaching importance to the role of modern talents

Yuntai Miao was back from studying abroad,he knew well the importance of scientific and technological talents in social development and industrial production.The smelting technology of Yunnan Tin can be improved to a greater extent by introducing advanced talents.When he came to Gejiu Tin Company, he was faced with the company's crisis in management and technology.He begun to hire foreign technicians and “graduates from local industrial schools to work in mines and let them do specimen identification business in the laboratory” [1].In order to improve the quality of native tin and avoid being exploited by intermediaries, his companies have tried to employ foreigners technicians several times to engage in newly smelting technology, it didn't work at first.Yuntai Miao kept hiring three American engineers try to solve the problem of poor quality, but his hopes were dashed.With the political situation in Yunnan changed in 1922, he had to leave the tin company with a feeling of attachment,and his attempt had to be interrupted.

It was not until 1927 that he was appointed as director of Yunnan Agricultural and Mining and general manager of the Dianyue Bank, he continued to improve the quality of Gejiu tin mine, so he visited Malaysia,Singapore,Penang Island and other countries in person to seek appropriate technical personnel, and he believed that "Gejiu tin is not poor mineral quality,but clean ore and refining equipment and lack of technology" [6].So he hired Achedik at a high salary and gave him several technical school graduates as his assistants.Achedik turned out the reasons for the poor quality of Yunnan tin ore at last, thus opening up the international market and enhance the competitiveness of tin ore products.While hiring foreign experts,Yuntai Miao needs Chinese technical personnel to assist it in work, so that Chinese technical personnel can get rapid improvement in technology and prepare necessary technical personnel for future technological reform.Because there is no technical advantage can easily controlled by foreigners in the Yunnan.Tin Services Company, “not only to equivalent to or worker salary paid 2000 pounds a year to pay Archdick, smelting factory technical manipulation” control by him. Archdick,as a British, “is not only the products of the company for the underwriting, even all the equipment used in the company is made in Britain, not only the iron salt of diesel oil, which is the biggest consumable, but also a beaker and a pair of cauldron tongs, and even the alcohol used in the laboratory comes from Hong Kong”[7].Therefore,it has become urgent to improve smelting technology and cultivate local talents.

3.2 Selecting and sending outstanding local intellectuals to study abroad

Overseas students are the inevitable product of China's modernization.Dispatching students overseas can alleviate the shortage of talents in the process of modernization, and make the cultivated

talents stay and be used. In order to ensure that every student sent by Yunnan will be able to do well in their studies and serve the province, the Yunnan authorities are very strict in the selection of foreign students. From 1912 to 1943, it was successive to send more than 150 people to study in the United States, France, Japan, Hong Kong and other places.

Hiring foreign technical personnel can only solve the temporary needs, while training local technical personnel is a long-term solution to talent shortage. Therefore, Yuntai Miao also sent local intellectuals to study abroad while he hired technical personnel at home and abroad. He “believes that the training of young intellectuals is the main part of intellectual investment, there are too few overseas students in Yunnan, so it is necessary to select a group of students to study abroad”. In order to improve the quality of foreign students, he required that “the students who should go for a tryout should be all high school graduates from all areas in Yunnan” [8]. With the approval of the provincial government, the Economic Committee of Yunnan formulated a plan to select students to study abroad in 1941. The selected foreign students are regulated in terms of expenses, scope of study and incentives. Yuntai Miao attaches great importance to the selected students and serves as the director of the Yunnan Committee for selecting and sending students to the United States. There are two subgroups in this committee: one is the committee for writing papers, and the other is the committee for marking papers. To appoint the chairman of the committee to be presided over by Mr. Menglin Jiang, member of the Standing Committee of the Southwest Associated General Assembly; Mr. Yiqi Mei, President of Southwest Associated University, will chair the marking committee. In order to make the entry of foreign students in the selection of justice, to ensure that no fraud, formulate strict rules (“rules on children of senior officials are not allowed to enter for the examination”) and strict precautions (“not only test use seal test certifications strictly, and rules between members and proposition can not interact with one another”) [6].

At the same time, he also actively gives financial support to those students who pay their own way. In 1948, the People's Enterprise Corporation offered self-funded students from poor families who were admitted to the Ministry of Education “an allowance of \$2,000 per person to help them study abroad”. “In addition to these government-funded students in 1946, these students who were admitted as self-funded students applied for financial assistance, and Yuntai Miao submitted to the board of directors of the company to grant subsidies” [6]. Students were very grateful for this, and many of them returned home to serve the country after their graduation.

3.3 Promoting the development of vocational education

Yuntai Miao once served as a standing member of the Guidance Committee of the Yunnan Office of China Vocational Education Association and established the banking training school. In order to develop rural credit business, carry out a series of business knowledge training, and establish the banking training school. In 1937, Fudian New Bank began to prepare cadres for rural credit, so it recruited 15 high school graduates and set up training courses for rural business [9]. After three months of training, these qualified in business were sent to eight districts of Kunming County to do the first batch of rural lending, and these twelve people became the backbone of the Cooperative Treasury later. In 1938, the rural business unit of Fudian New Bank expanded and organized the second phase of training course, and the agricultural loan area expanded to more than ten counties. Courses for senior bankers training courses for aggregate staff, and specialized banking schools have been established. A system of agricultural extension agencies will be formed. “After the establishment of the Yunnan Provincial Department of Construction in 1928, agricultural extension agencies were gradually increased, and by June 1938, there were 30 extension agencies with annual expenditure of 62,000 yuan” [10]. In 1938, Yuntai Miao began to promote the cultivation of kapok in Yunnan. Yuntai Miao actively supported the cultivation of kapok and the promotion of its technology. In promoting kapok planting, he invited famous Chinese cotton experts to promote kapok planting. At the same time, the cultivation methods and techniques of kapok cultivation were taught to farmers. In order to make the people of all counties understand the benefits and methods of planting kapok, the government has held a publicity conference on planting kapok together with all county organs and organizations, and issued the kapok cultivation law, the method of reclamation of

wasteland, the method of kapok loan, etc. Thanks to his strong support for kapok cultivation, kapok has been widely used in many areas. "Barren mountains are all competing for kapok, because kapok has been planted in the mountain and has achieved good results" [11].

As a famous modern financier and entrepreneur, Yuntai Miao played a great role in promoting Yunnan's modernization and Yunnan's modernization process, and promoting economic and social development in all aspects of industry, agriculture and finance. His success in smelting refined tin had a great impact on Yunnan's finance. From 1931 to 1936, the revenue of local enterprises increased from 3% of the total provincial budget to 35% [12]. This changed the situation of Yunnan's long-term dependence on opium revenue. For this reason, in 1935 Kai-shek's Chiang private secretary Bulei Chen also praised Yuntai Miao as "outstanding in thought and rhetoric" [13].

4. Conclusion

Yuntai Miao's lifelong pursuit made great contributions to the revitalization of local economy and social development, effectively promoted Yunnan's education and personnel training, played an important role in the process of Yunnan's modernization and greatly promote the rapid development of local society and economy. Because of his outstanding contribution to the social and economic development of Yunnan, Mr. Yuntai Miao was selected as one of the "Ten Historical Figures" of Kunming in 2005, on the 1240th anniversary of the founding of Kunming. This is a full recognition of his outstanding contribution to Kunming and Yunnan.

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