

## SOME FINANCIAL MODELS FOR UNIVERSITY EDUCATION ON THE WORLD AND HINT TO VIETNAM

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### **Abstract**

*In the context of the 4.0 industrial revolution, every country has its own strategies and policies that fit the conditions of its own country. However, one thing in common is the development of human resources, especially high-quality human resources, to meet the requirements as well as the ability to control the technological progress of this revolution. Depending on the level of development of each economy, depending on the specific conditions of each country. Each government will decide which financial model is suitable for the education system, especially for higher education. This paper aims at analyzing some financial models for higher education in the world such as the financial education model with state budget subsidy, the financial education model with the support from the credit fund incentives for students, the financial education model on the basis of self-assured by the source of tuition fees, or the model of development of private schools, thus recommending the application to Vietnam.*

**Key words:** *higher education, financial model, tuition fee, preferential credit, state budget*

### **I. SET THE PROBLEM**

In today's knowledge economy, especially against the backdrop of the industrial revolution 4.0. Education always plays a central and key role in the socio-economic development of each country. Especially with the view of fast and sustainable development as today. In the process of globalization, the introduction of educational attitudes, educational philosophy as well as new models of education into Vietnam are indispensable and unavoidable.

The problem is to choose which model to suit the current economic situation and educational situation in Vietnam. The Vietnamese higher education system has just ended a boom in student size as well as the number of universities. But in parallel with the rapid development of the number of universities in order to meet the demand for college by a large number of people. Vietnam's higher education system is showing a great weakness in the quality of education. The number of students trained is not great, but it does not meet the requirements of the labor market.

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It is for this reason that Vietnam needs to be aware of what the higher education system needs to change in order to immediately take precautions to develop a new, highly qualified workforce. meet the requirements of society.

In the context of the economy has not really developed, the state budget for education is limited, investment in education in general and university education in particular of people is low. Therefore, a requirement for higher education in Vietnam is to choose the right model, to meet the financial needs for higher education development, to improve the quality of education, to contribute to Speeding up the process of international economic integration.

### **II. SOME FINANCIAL MODELS FOR HIGHER EDUCATION IN THE WORLD**

In the trend of integration and globalization, countries are looking for solutions to increase capital and efficiency of using capital for higher education. This article introduces the following 5 higher education finance models in the world:

#### **2.1 Model 1: Higher education financing model based on subsidies from the state budget**

A higher education financing model in which the majority of school funding is guaranteed by the state budget. To do this requires that the country has a developed economy or a high concentration of government investment in higher education. This model has the advantage of having the uniform direction of the state. Ensure the higher education system develops labor structure in accordance with government requirements. Avoid excess or lack of learners in certain fields or disciplines that are socially preferred.

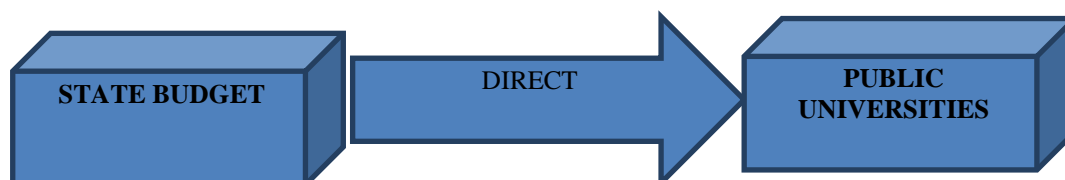
However, this model also reveals some disadvantages such as: the first letter of the system slow innovation to meet the increasing requirements of society. Often in a one way relationship the school will train what the school does, not training according to the needs of the society. The second is the reduction of competition among schools due to the lack of competitive pressure on enrollment.

Typically in this model in the previous period, in most socialist countries like the former Soviet Union or Vietnam, the government completely subsidized the university's financial resources by the state budget. In return the

schools will be training according to government orders in terms of quantity as well as training disciplines. In the 1950s-1960s, the United States also used this model to develop public higher education as a system of community colleges.

In some countries with the highest economic development in the world, education and training are fully subsidized by the State. This model is applied .. In Germany, the government grants almost all funding for public universities, students do not have to pay tuition. In addition, some Nordic countries such as Norway, Sweden, France, ... also apply this model and is commonly called the model: "college finance subsidized by the budget home water "or" low or free tuition "(Arthur M. Hauptman, 2007). In these countries public free or low-cost public universities. In this model, the government plays a key role in the development of public higher education and learners pay only a fraction of tuition.

Diagram 1: Financial source with free or low cost model



To successfully implement this model, countries must have a very developed economy, investment in infrastructure of the country has basically been completed and the population size is stable, there is no sudden increase turn on the size of students. Thus, they have the financial capacity to invest in higher education. However, this model is difficult to apply long term. Causes due to some disadvantages have been analyzed above.

**Table 1 Percentage of GDP and budget for education in 2015**

No	Country	Budget for education*	% of GDP**
1	USA	104.296.926.000	5,6
2	China	44.928.432.000	4,0
3	Austria	11.207.295.000	6,0
4	Czech republic	4.542.037.439	4,2
5	Denmark	18.712.070.063	8,7
6	France	82.019.056.033	5,9
7	Greece	5.259.852.453	4,1
8	Iceland	8.585.278.000	7,8
9	Italy	49.157.304.941	4,5
10	Netherland	35.900.774.000	6,0
11	Poland	19.880.170.707	5,2
12	Portugal	8.269.479.145	5,8
13	Romania	5.070.000.671	3,1
14	Spain	46.003.600.000	5,0
15	Sweden	5.716.011.302	7,0
16	Turkey	25.886.667.900	2,9
17	UK-England	105.163.850.273	5,6

Source: \* <https://webgate.ec.europa.eu/fpfis/mwikis/eurydice/images/8/8f/194EN.pdf>

\*\* [https://en.wikipedia.org/wiki/List\\_of\\_countries\\_by\\_spending\\_on\\_education\\_\(%25\\_of\\_GDP\)](https://en.wikipedia.org/wiki/List_of_countries_by_spending_on_education_(%25_of_GDP))

2.1 Model 2: The financial model of higher education institutions is self-funded by tuition revenue

This model of investing in education is considered as another investment field. Education is considered as a product of economics and not as simply education as the model above. It is made based on research on market principles in higher education costs, students and families are subject to the costs of higher education. The funding from the state budget for higher education will go to poor children or industries that are prioritized by the Government to invest in development, pay low or free tuition fees, and social sectors. high demand or strong socialization as well as universities that can be autonomous such as foreign languages, information technology, economics, business administration or law, they have to pay high fees.

When this program is applied, both market and non-market principles can be combined to complement the cost of higher education. At the same time, at the same time, the Government addresses many different purposes in line with the diverse and complex nature of college finance: reducing government budget burdens, increasing the competitiveness of the schools, putting pressure on the self-innovation of the university to train to meet the social requirements.

Different levels of tuition are available for different levels of education and for different types of learners: The higher the degree, the higher the tuition is. In contrast to higher education, graduate and postgraduate courses are higher and higher than those of undergraduate (Arthur M. Hauptman, 2007). At the same level of training, programs with better conditions (in terms of facilities, programs, curricula), or better outcomes, will be subject to higher tuition fees. . On the basis of the principle that tuition fees are sufficient to cover the costs.

In the United States, student tuition is considered a major measure to share the cost of higher education. University fees are calculated so as to make up for the significant costs of running a school and the costs of inflation. The tuition fees are higher than the school expenses and help make the school profitable. Therefore, tuition fees at universities are always changing with increasing tendency.

In Korea, under favorable conditions, parents are willing to pay high to provide their children with education as high as possible. This has helped Korea raise a lot of financial resources from the tuition fees of the parents of students (Institute of Science and Education of Vietnam, 2017). Korea has done this for two main reasons: the Korean economy is very developed, the per capita income is very high, approximately 36 thousand dollars / person / year, so it is possible to invest in children. The second reason is that the current population of Korea is declining because couples tend to have fewer children than most are single. Therefore, Koreans often spend large amounts of money to invest in their children's education.

In China, the policy of tuition fees for undergraduate students has been implemented since 1989 with student-specific discrimination: In 1989, students receiving state subsidy pay only tuition CNY 200 (EUR 26,65) / year, CNY 800 (EUR 102,59) / year; By 2006, this figure was close to CNY 10,000 (EUR 1,282.44) per year; Students who are enrolled in a number of disciplines such as agriculture, forestry and pedagogy are exempted from tuition fees and receive a subsidy of 80-150 CNY (EUR 10.26-19.24) per month. (<http://tiasang.com.vn>).

**Table 2 Tuition fees in some countries**

No	Name of University	Undergraduate (€)	Postgraduate (€)
1	Stanford University, USA*	13.784 – 33.464	33.464– 35.650
2	Massachusetts Institute of Technology (MIT), USA*	33.867	38,303
3	California Institute of Technology (Caltech), USA*	32.864 - 33.942	32.864 - 33.810
4	University of Chicago, USA*	36.404	32.654
5	Harvard University, USA*	30.732	7.689 – 29.575
6	University of Toronto, Canada**	31,000	31,000
7	University of Cambridge, UK*	£16.973 – £25.833	19.098 – 26.321
8	Imperial College London, UK*	24.558	24.934 – 25.641
9	Australia National University, Australia**	27,000	27,000
10	UCL (University College London), UK*	15.659 – 20.964	18.161 – 21.760
11	University of Oxford, UK*	20.429 – 27.003	8.303 – 19.775
12	Nanyang Technological University, Singapore*	15.429 – 73.750	14.766
13	Lomonosov Moscow State University, Moscow**	5,000	5,000
14	Tsinghua University, China**	4,695	4,695

Source: \* <https://www.careeraddict.com/top-10-most-expensive-universities-in-the-world>

\*\* Tuition fees at universities around the world, <https://brightside.me/wonder-places/tuition-fees-at-universities-around-the-world-216405>

2.3 Model 3: University financial model on the basis of supporting credit loans for learners.

This model is widely used in countries where the economy is not high. When the economy is not high, it will lead to two consequences. Firstly, the government does not have the budget to subsidize the entire costs of such universities. Governments can not apply the first model. Secondly, people who do not have high income to pay for high school fees can not apply the second model.

"In this model, the government will directly subsidize students through a student loan program for college. Students who are officially enrolled are entitled to a real interest rate of zero to pay the tuition fee, after graduation, to obtain a job and earn a high salary on a certain threshold to start paying and paying near Like personal income tax. If the retirement age is not paid up, the debt shall be written off. This policy will increase the responsibility for the learner itself, as the student will have to work hard to find a good paid job, repay the loan "(Arthur M. Hauptman, 2007).

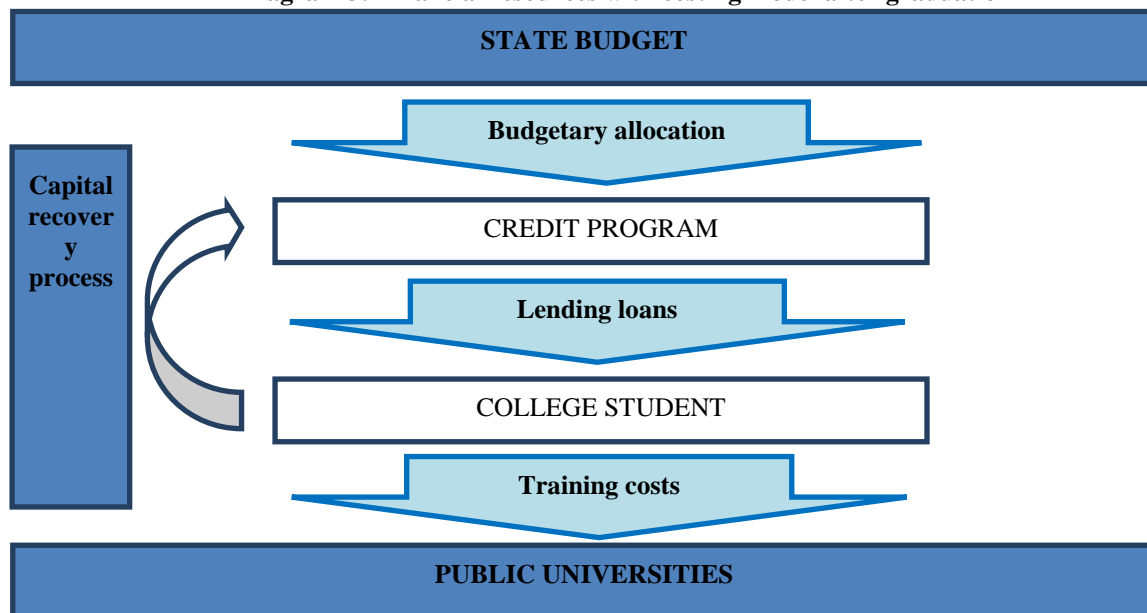
However, based on specific conditions in each country, each country has different programs and financial mechanisms to implement. Each country has its own goals, such as ensuring social justice or expanding the scope of higher education. In 2010, the UK government allows borrowers to pay tuition fees, after graduation, if they work less than £ 15,000 a year or less, they have not yet had to pay their loans, and the interest rate is now subsidized by the state. only 1.5% per annum, the current repayment period is 25 years and is expected to increase to 30 years before the State debt relief.

In Thailand, the student lends in advance a sum of money to pay for school fees, books, school supplies and other expenses related to studying, enough to cover for 7 years: 3 years Level 3 and 4 years at the university level. After

graduation from 2 years to 3 years, they start repaying principal plus 1% interest, within 15 years (Vu Thanh Chuong, 2013).

To encourage foreign students to study in Singapore, the government offers programs for international students to study. After graduation, students have to stay in Singapore for a number of years to pay the loan (Nguyen Dac Hung, 2011). This model is not only the governments that many large corporations are doing in order to attract more talents as well as ensure the long-term supply of human resources.

**Diagram 3: Financial resources with costing model after graduation**



**Table 3 Tertiary education spending, attainment and loan uptake in selected countries**

o	Country	Expenditure per student by institution	Public support for households and private entities, % of GDP
1	Australia	10.711	0,39
2	Canada	11.585	0,38
3	Finland	10.905	0,3
4	France	10.454	0,1
5	Germany	10.904	0,31
6	Hungary	7.153	0,14
7	Netherland	11.701	0,5
8	Norway	14.288	0,99
9	UK	10.472	0,99
10	USA	15.345	0,34

Source: [www.eenee.de/dms/EENEE/Analytical\\_Reports/EENEE\\_AR25.pdf](http://www.eenee.de/dms/EENEE/Analytical_Reports/EENEE_AR25.pdf)

**2.4 Model 4: Private Education System Expansion Model**

In fact, the higher education model based on the extension of the private university system is the highest development model of the four models. It is only possible to make certain of the following:

The investment in higher education is considered as an investment in an economic field. This means that in university goals there are profitable elements. This helps the school to continually innovate in quality, training, and other factors to attract more and more learners, which means they will be more profitable.

Second: The economy grows to a certain level so that individuals have sufficient financial resources to invest in higher education, in particular the establishment of private universities and investment in upgrading housing development. school yearly. By investing in higher education not only for a short time and with a small amount of capital. It is a large, long-term non-personal investment that can be made

Higher education systems in most countries exist in parallel with public and private universities. As the state budget for public schools has hardly grown, the trend is that the number of students entering the private university system is increasing, while the number of students entering public universities is increasing, The trend is slower.

One of the most effective ways to attract students to private colleges is to allow students to take loans to study and receive scholarships (Arthur M. Hauptman, 2007). This university is very popular in the world especially in

America, Japan, South Korea ... In 2011, there are nearly 5,000 universities in the US, of which there are over 1,800 free schools. more than 3,000 colleges and 1,700 colleges (<https://news.zing.vn>). Currently, Korea has 23 public universities, 168 private universities (the number of students attending public universities accounts for 20% of total students) (Dang Van Huan, 2011).

**Table 4 The number of private universities in some countries**

No	Country	Number of universities
1	America	1800
2	Poland	321
3	Korea	168
4	Bangladesh	91
5	Malaysia	70
6	VietNam	66
7	Chile	45
8	ThaiLan	37

Source: [https://en.wikipedia.org/wiki/Private\\_university](https://en.wikipedia.org/wiki/Private_university)

**2.5 Model 5: Mixed college financial model**

This model exists in some countries where it is not yet eligible to perform one of the four models mentioned above.

Its essence is that when the economy is not really developed, the government can not subsidize the schools with their little budget. Investors do not have enough big economic potential to invest in private universities. And students do not have enough income to accept high tuition fees.

Under such conditions, underdeveloped countries adopt a financial model for higher education that lies among the four models mentioned above and is called a mixed college financial model. In essence, it included four financial models, but it was not strong enough to move on a model.

Typically for this model is the model of higher education in Vietnam. With a population of nearly 100 million people, the current size of university education is 1.8 million students. Every year, the number of high school graduates is about 900,000, of which 80% are interested in studying, but only 41% of students go to university or college.

(Source: Report of 2016-2017 by the Ministry of Education and Training)

However, with a student population of 1.8 million students, the budget for the entire Vietnamese education system now accounts for 5% of GDP, equivalent to 20% of the budget of \$ 10 billion. Of course, the education budget for university training is only 14.5%, which is about \$ 1.45 billion. Average US \$ 800 per student per year.

**III. CONCLUSIONS AND RECOMMENDATIONS ON THE FINANCIAL MODEL FOR HIGHER EDUCATION IN VIETNAM**

In the context of the Vietnamese Communist Party and the government, there are strategies and actions to catch up and take advantage of the 4th Industrial Network. Developing a high quality workforce for the industrial revolution 4.0. At the same time, globalization and international integration are creating opportunities, but also difficult for the education sector as well as universities in Vietnam. By analyzing the financial models applied in the world and in practice, some countries can draw some recommendations on the financial model suitable for higher education in Vietnam as follows:

Firstly: Restructure the university system

At present, Vietnam has about 550 universities and colleges (230 of which are universities) and 43 research institutes with training functions. The number of schools with small training scale accounts for 65%. The number of schools is based mainly on the state budget and ineffective activities, accounting for up to 30%.

With such a system of bureaucracy and ineffectiveness, some of the consequences are:

- Allocation of state budget to small schools
- Become a burden on the state budget due to subsidies for too many schools
- Investment of resources of the social state is not effective due to small
- Ability to accumulate and develop into big, regional and world-class universities.

In response to these requests, the Ministry of Education and Training (MOET) needs to restructure its schools through full university autonomy (see below for details). The Ministry retains only two regional universities: Hanoi National University, Ho Chi Minh City National University; Military security colleges, a medical university and a Hanoi Polytechnic University belong to the technical group. To focus on financial resources to invest effectively. Other universities will research and invest budget to develop a key industry. Avoid investment spread out as today

Second: Effective use of state budget

In 2017, the total state budget for education and training is 224,826 billion VND (8.323,007.851 EUR), accounting for 20% of total state budget expenditure, accounting for 5% of GDP (<http://tapchitaichinh.vn>). In the

coming time, it is necessary to increase the investment budget for education to over 22% to 10 billion EUR in order to timely serve the training of high quality human resources for the fourth industrial revolution.

Transfer from the budget level in the form of indicators based on the budget of the previous year to be allocated for the following year to the budget allocation mechanism according to enrollment results.

Restructure the allocation of funds by allocating a portion of the budget to the schools based on enrollment results. The remainder of the budget is intended to focus on a number of key or industry-based universities as demonstrated in the restructuring of the university system.

Funds allocated to schools are mainly used to improve the quality and level of teaching staff. Limit funding for infrastructure investment, procurement of equipment (this part when funded schools are using ineffective). Funds for investment in physical facilities will be allocated to the schools themselves from tuition fees and other sources.

Third: Enhancing university autonomy to advance university autonomy completely

Increase in university autonomy towards full university autonomy by 2022. University degrees are financially autonomous (including self-financing, social investment and mobilization), self-control of the program This is the way and scale of enrollment (now the Ministry of Education and Training is managing and allocating quotas), self-reliance on human resources and recruitment.

By enhancing university autonomy especially giving full autonomy to universities. Vietnam's higher education system may face "crisis" two to three years ago when the phenomenon of small and weak universities is being dissolved or merged into other universities due to inadequate change and Adaptation. This has the following advantages:

- Universities change their course of study in order to improve the quality of teaching and research in order to increase their competitiveness in enrollment
- The process of natural purification of small universities, weak performance ineffective. Helping the system have many larger universities, can compete with the region and the world.
- The investment in state budgets for schools is more efficient as the schools receive larger budgets than before leading to greater and more efficient investment.

While not giving financial autonomy to universities. The Ministry of Education and Training should accelerate the current tuition fee increase to ensure that tuition revenue is sufficient to cover the cost of training. Currently, only 60% of training costs are covered. In addition to the diminution of the budget, it is difficult for universities to invest in facilities and to improve their teaching staff.

Fourth: Increase student loans

The policy on lending to students and students of the Social Policy Bank shall comply with the Prime Minister's Decision No. 157/2007 / QD-TTg of September 27, 2007, on credit for study students. On 15/6/2017, the Prime Minister adjusted the lending rate for students to 18 milion VND (€ 666.36) / student-student / year, according to Decision No. 751 / QD-TTg. However, with the escalating costs and the costs of studying and living, the current level of borrowing is quite low. In the near future, it should increase to a higher level of 800 EUR per student per year. At the same time increase the repayment period longer. At the present time, there is great pressure to repay the students.

Fifth: Socialization of investment in the development of higher education through the development of a private university system

Vietnam now has more than 60 private universities and 5 universities with 100% foreign investment. This shows that policy mechanisms for education and training have been opened. Create conditions for all economic sectors to invest in the field of education, especially higher education. However, in reality, some of the regulations of the Ministry of Education and Training also distinguish between private universities and public universities. This creates unfair competition for the system of public universities.

With the number of schools currently in existence, Vietnam's higher education has seen rapid growth even faster than publicly-funded public universities such as universities. FPT University, Ton Duc Thang University, RMIT University. This shows that private universities with open mechanisms and keen investment are contributing significantly to the development of higher education in Vietnam.

Let the system of private universities continue to develop further and make more practical contributions to the cause of education. The government and the Ministry of Education and Training need to change the mechanisms and policies to completely eliminate the discrimination between public and private universities.

#### **IV. CONCLUSIONS**

The transition to a market economy managed by the Socialist-oriented State ended the subsidy for education in general and university education in particular. In order to ensure the development of education and social justice in higher education in Vietnam, it is necessary to continue applying the mixed financial education model described above. In particular, government investment and state budget funds still need to play a key role, but should be adjusted in the direction of priority investment, especially for basic science training. , have limited social needs, low ability of socialization; Special attention should be paid to the appropriateness of budget for the development of teaching staff; Facilitate private sector participation in this area; Enhancing the sharing of tuition fees from learners in accordance with the quality of training provided; Allowing autonomous schools to develop different tuition fees according to the needs

of learners, the need of society to enhance socialization; Expand the policy of preferential loans for learners, subsidy for poor students and students under the policy. Towards complete autonomy in higher education in Vietnam.

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