

Dissertation to obtain the degree of doctorate in political science and economics (Dr. rer. Pol.)

**Tuition fee Policy for Public Higher Education Institutions
in Vietnam: Development Orientations and
Recommendations – Lessons from case studies in Germany,
China, the United Kingdom and Vietnam**

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Chapter 1 – Introduction

Among many aspects that contribute to the success of a higher education system in a country, financial resources for higher education institutions play a critical role. Theoretically, increasing tuition fees can reduce the burden on the state budget for higher education and vice versa (OECD, 2012). In this scenario, tuition fee is a tool to implement the cost sharing of higher education between the State and students. However, there are several possible outcomes of the implementation or increase of tuition fee in higher education.

From the perspective of the State, introducing tuition fees or increasing them means that the higher education institutions will require fewer financial resources from the State to balance their revenues and expenditures. With reference to Leslie and Brinkman (1987), higher education also follows the law of supply and demand, where tuition acts as the "price" affecting the revenue of the school in the market for higher education. Therefore, the implementation of tuition places the State in a position to reduce the distribution of the budget on higher education, making more rooms available for other spending. This is particularly relevant for developing nations with limited State budget and more urgent spending needs. Furthermore, if the income from raising tuition fees exceeds the current fund from the State budget, higher education institutions will have more abundant financial resources ready for such uses as improving their facilities and training quality.

According to Jongbloed (2004), tuition is not only a source of income, but also an agent of dividing the available resources and creating a competitive environment among universities. From the perspective of higher education institutions, tuition fees may act as a driving force for them to improve the quality to be on par with tuition costs and compete with other universities of similar tuition fees. Furthermore, top-ranked universities in the system can charge a higher level of tuition fee than lower-ranked institutions and thus have advantages in terms of resources. According to the Matthew effect of accumulated advantage, these top-ranked universities, with a larger source of budget, can further improve their training quality and expand their competitive advantages. As a result, differences among higher education institutions in the system might widen in the sense that top-ranked institutions have plenty of scope to keep enhancing their quality and reputation thanks to higher income while most of the rest struggle in improving enrolment rate and training quality. Hence, tuition fees may have both positive and negative effects on the development of higher education institutions.

From the perspective of learners, several studies addressed the impact of changes in tuition on learners' interests. Tuition has an impact on the student's choice of university (Tillery and Kildegaard, 1973 and Mundy, 1976) or provides a signal of the financial returns that graduates will receive (Jongbloed, 2005a). In addition, it also serves as the key source of motivation for students to spend extra effort on studying in order to achieve results that are worth the cost they have paid for (Callender, 2006). However, students have different financial capabilities of financing their own education. Furthermore, as universities of higher standard or ranking tend to have higher tuition fees, students that are financially advantaged are more likely to enjoy higher quality of education. This, consequently, leads to inequality in the society where the rich have access to better education and get richer while the poor get poorer.

In Vietnam, typical studies regarding policies on higher education tuition conducted include those of Vu Nhu Thang and Hoang Thi Minh Hao (2012), Nguyen Truong Giang (2012), Phung Xuan Nha et al (2012) and Phung Xuan Nha et al. (2016). According to Vu Nhu Thang and Hoang Thi Minh Hao (2012), the tuition fee for higher education should fully reflect the responsibility of cost sharing between the State and learners. Insufficient levels of tuition and budget revenues that fail to offset the costs will negatively affect the training quality while leading to an overcrowding of students / teachers lacking access to adequate facilities. The research of Nguyen Truong Giang (2012) suggested that low tuition fees were not suitable with the requirements of improving financial autonomy and improving the quality of higher education. Moreover, the determined tuition fee can create a competitive market among universities in attracting learners through improving the quality of educational services. Phung Xuan Nha et al. (2012) stated that the imposition of tuition ceilings as stipulated in Decree 49/2010 / ND-CP on May 14, 2010 was unreasonable for schools that are assigned with autonomy mechanisms. This study also proposed that the government should develop a future plan to allow universities to determine their own tuition fee schedules and balance their own financial resources. In the study on students' readiness to pay for higher education of Phung Xuan Nha et al. (2016), it was revealed that learners accepted higher tuition fees when the school guaranteed quality-related factors such as school facilities, credit-based curriculum, teacher / student ratio and job prospect upon graduation. However, all of the previous research studies only described or solved the issue of the tuition fee policies at the time but did not suggest a clear orientation for the higher education tuition fee in the long term.

From the above analysis, the tuition fee policy for higher education in Vietnam still has a significant number of problems. Therefore, there is a need for a research that can suggest feasible policies for higher education institutions, particularly in the context of financial autonomy and tuition fees. Furthermore, it is necessary to conduct scientific studies to analyze and detect shortcomings of the current public higher education tuition fee policy in Vietnam as well as exploring the lessons learnt from other advanced higher education systems in the world. Via this, the research is expected to reveal a clear orientation for public higher education development in Vietnam, especially in terms of tuition fee policies.

Research Design

1.1 Problems definition

This dissertation is designed to:

- a) explore the current conditions of tuition fee system applying on public higher education institutions in Vietnam
- b) determine the limitations of tuition fee policies for public higher education sector in Vietnam
- c) propose recommendations to improve the situation and suggest an overall long-term plan for higher education tuition fee in Vietnam.

As mentioned in the previous chapter, there were a few researches that discussed this topic in Vietnam. However, these studies did not attempt to explore and draw lessons learnt from cases of more developed systems in the world. Therefore, this research studies the cases of Germany, China and the United Kingdom and compares them with the findings from the investigation of Vietnam. The comparison enables the researcher to propose an orientation for the tuition fee policies to be applied in public higher education in Vietnam. The vision may be relevant in the next 20 or even 50 years as Vietnamese economy and education system is at least 20 to 50 years backward compared to the other 3 nations.

1.2 Research objectives and questions

For the last few decades since the “Doi Moi” event in Vietnam, the government has spent significant effort to develop the higher education system. Although the system achieved a number of improvements, there remains a lot of space for further advancement. The tuition fee policies for higher education in Vietnam experienced several adjustments and reforms. However, changes

stemmed from failures of experiments rather than a systematic and oriented plan. In fact, experiments on tuition fee policies are risky with possible consequences on learners. Therefore, drawing lessons learnt from more developed systems seems to be a safer choice. For this reason, the purposes of this research are:

1. to investigate and analyze the conditions of public higher education tuition fee system in Vietnam
2. to orientate the development and adjustments for tuition fee policies of higher education in Vietnam by comparing and learning from more developed systems
3. to highlight and formulate several learned lessons and recommendations for a better design of higher education tuition fee policies in Vietnam

Accordingly, the following questions are raised and answered in the next chapters in order to achieve the three objectives mentioned above:

1. What are limitations of the tuition fee policies of higher education in Vietnam?
2. Which orientations are possible for the government of Vietnam to adjust the current tuition fee policies?
3. How should the government of Vietnam adapt the tuition fee policies for the public higher education sector in both short-term and long-term to improve the educational quality while ensuring the interest of learners?

Moreover, Vietnam, Germany, China and the United Kingdom are chosen as the research sites in this study because:

- a) Vietnam is the main subject of the research as a developing country with impressive achievements in the development in the last few decades. Moreover, Vietnam has many differences with other nations in terms of political and social system in addition to a special culture of investment on the next generations.
- b) The other three nations have more developed higher education systems, each of which represents a distinct type of tuition fee policies. For instance, Germany is famous for its success in free higher education while China is blooming in higher education quality with a mix of free and

paid tuition fee system. Moreover, China is a neighbor of Vietnam with a lot of similarities in social, economic and political systems. Last but not least, the United Kingdom is another example of a successful high tuition system.

1.3 The significance of the research

The thesis contributes not only for the policy makers in Vietnam but also the literature of tuition fee policy. Firstly, the research provides literature on tuition fee, its characteristics and influences in several nations. Comparative studies involving developing and developed countries in this research may provide opportunities for a better understanding of tuition fee and its influences. By reviewing these cases, the foundation for further studies in tuition fee policies can be conducted and applied even beyond higher education to other sectors.

Secondly, this study introduces and describes the development of public higher education in Vietnam apart from its achievements and limitations. As a developing nation, Vietnam may set a good example for similar countries. Moreover, with this information, the government of Vietnam can improve the system and rethink related systems in order to unfold further positive outcomes.

Thirdly, this dissertation recommends some policy adjustments for Vietnamese government as well as the vision for the development of higher education in the future.

Finally, it provides the author an opportunity to enhance his capabilities in doing multiple qualitative case studies in addition to acting as a cornerstone for further study in the area of public education finance and administration in Vietnam.

1.4 The structure of the dissertation

The dissertation includes six chapters in total. The first chapter depicts the overview of the thesis, including research background, its objectives and questions as well as methodology. This is followed by the second chapter, which provides a literature review on tuition fee and its characteristics. In this chapter, the case studies of some countries are discussed in order to improve the understanding of the concept of tuition fee and its effects on higher education systems. Next, the methodology of the research is demonstrated in chapter three. In the fourth chapter, the thesis investigates the case study of Germany, China and the United Kingdom in three separate sections, detailing reviews of historical events and discussions by previous researchers. Delving deeper into the case studies of more developed nations may provide insights into a possible orientation for

tuition fee policy in Vietnam. Following that, chapter five analyses the case of Vietnam in terms of historical events, official documents and results from interviews with experts and policy makers. Furthermore, this chapter also describes the current situation of Vietnamese higher education system along with its development process. Subsequently, the case studies in chapter 4 and chapter 5 are compared in the sixth chapter to explore and discuss the lessons learned, which may be applied in Vietnam. In addition, the sixth chapter will propose some recommendations for policy makers in Vietnam and summarizes the thesis. This last chapter also goes on to discuss some reflection on the thesis' research methods, data and findings as well as suggesting further research as necessary.

Chapter 2 - Literature Review

“... It is not fair to say that changes in federal policy have caused our tuition to rise faster. Every economic argument imaginable would indicate that we should raise tuition at a faster rate than we do...”

Charles M. Vest – The president of Massachusetts Institute of Technology (1990-2004)

For a period of time, raising costs of higher education was trending in many nations in the world. In fact, all higher education institutions required financial resources to improve their training quality and number of enrollments. Policies on education, in general, and higher education, in particular, were usually described as political “crowd pleasers” (Ansell, 2010). Therefore, no politician or government would like to follow an anti-education plan or promote any restrictions on accessing education. Moreover, as the modern economy continuously demanded for skilled labor forces, people had no choice but enhancing their professional skills to compete and aim for a higher salary. Therefore, as the demand for enrollments from both learners and institutions increased while training quality was required to be improved, the total costs of higher education were naturally subject to an augmentation.

This scenario pushed the State into a “trilemma” in higher education policy in which the policy makers had to make a decision to choose two out of three political desirable goals: enrollment figures, subsidization and overall public cost. Ansell (2008) suggested that the decisions of the State led to the formation of three types of higher education systems, including “partially private”, “mass public” and “elite” systems. Specifically:

- “Partially private” higher education systems were those that have mass enrollment, with partial subsidization from the State (with the existences of tuition fees) and hence, having a moderate public cost.
- “Mass public” higher education systems also had mass enrollment, but the cost was fully subsidized by the State. As a result, the public cost for the system was substantial.
- “Elite” higher education systems were fully publicly subsidized with low levels of enrollment, hence producing a moderate public cost.

Therefore, for a developing country without a sizable State budget, whose government has to face increasing demand in both quality and enrollment rates of higher education, the “partially private” system with the existence of tuition fee may be considered a reasonable choice.

The tuition of higher education may act as an instrument to share the education cost between the State and students. An elevated level of tuition could reduce the burden on the State budget and vice versa (OECD, 2012). Therefore, the choice of the policy makers among different tuition fee policies plus other financial assistance policies are becoming more and more critical. This combination, if successfully executed, may increase revenue for higher education institutions to improve the training quality while ensuring the education accessibility for lower-income people. This chapter of the thesis will review the literature of tuition fees in the higher education sector and discover how an appropriate level of fees can be determined as well as the impacts on students, the State and public higher education institutions. Moreover, the concepts of financial assistance for students and the previous research on the situation of the higher education tuition system in Vietnam will also be explored.

2.1 Definition of Tuition fee

Tuition fee is an important source of funding for many universities. In the US, “tuition” is understood as the fee for educational instruction. Meanwhile, in the UK and the majority of other English-speaking nations, “tuition” simply indicates instruction and hence, the fee charged for it is called “tuition fee”. The thesis will follow the UK’s practice and refer to the charge as “tuition fee”(Marcucci et al, 2007).

The term “tuition fee” was defined as the instructional cost for educational services per student or the responsibility of this student and/or his/her family to pay (Ehrenberg, 2007). A “tuition fee” should be considered a mandatory charge applied to all students (and their families) to offset some of an institution’s underlying cost of instruction. Meanwhile, a “fee” is a charge to recover all or most of the costs related to a certain institutionally-provided good or service.

Tuition fee may also be explained in the *cost-sharing* concept as “a shift of a portion of higher education costs of instruction from being born predominantly or entirely by governments, or taxpayers, to being shared by parents (or extended families) and students” (Johnstone, 2003). According to this concept, tuition is an instrument for the government to rebalance the public and private funding for higher education. Changes in this *cost-sharing* can be in a number of forms,

such as an establishment of a tuition system that did not exist before or a significant rise of tuition given its prior existence. The shifts can also be a decline or a termination of student grants or student loan subsidies, which would subsequently lead to a rise in the demand for private funding so as to offset the costs of education and living. Furthermore, the changes may lie in the form of public policies that encourage the transition of higher education institutions from a public sector that is largely subsidized to a private one much less so and more fee-dependent.

Historically, the development progress of many higher education systems in the world was based on an ideology of free tertiary education for all qualified students (P. N. Marcucci; D. B. Johnstone, 2007). This kind of system used to be particularly common in Western, Central and Eastern Europe, Russia and the nations of the former-Soviet Union as well as Francophone Africa. The arguments for free higher education hinged on a number of rationales as follows:

- The benefits to society from a well-educated population were undeniably striking.
- Education was (or should have been) a fundamental right.
- Tuition fees might be a barrier to discourage the participation in education of students from lower socio-economic backgrounds such as low-income families, rural areas, or ethnic minorities with negative impacts in terms of social equality and benefits.
- The costs of student maintenance were already relatively high (compared to other levels of education) and beyond the reach of many families.

However, opponents of free public higher education claimed that the immediate beneficiaries of this system tended to be the politically powerful middle and upper classes, who often used the above-mentioned rationales to support their own interests in maintaining the education free.

Indeed, there was a transfer of the burden of higher education costs, where students and their parents with low incomes carried a more significant proportion (Johnstone, 2004). The rationales of this burden transfer could include:

- Individual returns to students from higher education such as elevated lifetime earnings and enhanced status were substantial (and possibly also extended to their parents).
- Higher education at zero fee was enjoyed excessively by the students from middle and upper classes. Yet in most nations the costs of free education were likely to be covered by

taxes that were proportional and generally regressive, imposing a greater burden on the low-income. Therefore, from the perspective of economics, a totally free higher education could be a redistribution of income from the impoverished to the affluent.

- Students and their families who made tuition fee payment could ask for more accountability, thus motivating higher education institutions to be more consumer-centric and efficient.
- The increasing costs of higher education, thanks to the demands for enhancing training quality, magnified by the escalation of enrollments, were calling for extraordinary growth in tax revenue annually. Nevertheless, raising tax revenues to support higher education faced increasing challenges, especially in low-income and transitional economies, due to the accumulating difficulty of taxation as well as the rising competition from other public needs such as healthcare services or primary education.

Therefore, it is a matter of fact that the growing enrollments in higher education and the trend of decreasing government investment require more public policies that support, or at the very least permit the existence of tuition fees (Johnstone, 2009).

2.2 Types of Tuition fee Policies

Based on the conceptual framework of Johnstone and Marcucci (P. N. Marcucci; D. B. Johnstone, 2007), tuition fee policies could be divided into three main categories:

- Tuition fees for all
- No tuition fees
- Dual track tuition fees

The selection of policies is normally based on the national conception of responsibility for financing higher education in each nation.

With the belief that all learners and their parents must be responsible for covering a certain portion of higher education costs, many nations are applying “Tuition fees for all” policy. Obviously, the State budget burden in this scenario for higher education can be reduced. Moreover, as everyone has to pay tuition fees, equality in terms of contribution for higher education finance may appear reasonable. However, equality in accessibility to higher education is not ensured. When all learners are required to pay a similar amount of money for their participation in higher

education, students with financial advantages (coming from rich families) have more opportunities to attend higher education because this tuition fees account for a smaller proportion of their or their family's income than those with financial disadvantages (coming from poorer families). Therefore, in order to reduce the inequality in education accessibility, "tuition fees for all" policy is usually complemented by some form of financial assistance. In this case, the proportion of tuition fee needs to be paid or the amount of financial assistance available depends on the family's level of income (P. N. Marcucci; D. B. Johnstone, 2007).

In contrast with "tuition fees for all" policy, "no tuition fee" are applied with the assumption that parents are financially irresponsible for the education of their children while the children themselves cannot be expected to cover education costs during their study (P. N. Marcucci; D. B. Johnstone, 2007). On the one hand, this policy pushes the financial burden in the hand of the State or in fact, taxpayers. On the other hand, it has the advantage of creating equality in accessibility to higher education for all learners. However, many researches argued that free higher education, in fact, increased the inequality. In contrast to the seemingly "progressive" nature, zero-tuition higher education programs allot money from taxpayers toward middle income and elite students, whose quantity usually exceeds the mass students of lower income. As a result, this tends to provide them with a further edge in the higher education system. Therefore, this policy is likely to be successfully applied in nations that follow the "Elite" higher education model such as Germany or Scandinavian countries, where the State uses a considerable amount of resources collected from taxpayers to pay for all instructional costs for qualified students.

Meanwhile, "dual track tuition fee policies" have been implemented in many countries that have either curb on or intense mass resistance to tuition fees. In these nations, a number of extremely low cost or free higher education positions are granted by the government to students that meet certain criteria. One of these criteria is usually the results of students in the entrance exam. Other higher education places are available for qualified (with lower score) students on a tuition fee paying basis, or special continuing education and professional courses that are served by universities to charge tuition fees (Marcucci, Johnstone, & Ngolovoi, 2008).

Most of all governments in the world are somehow implementing *Dual track tuition fee policies*. Since 1998, Australian universities have been allowed to offer fee-paying places to native undergraduates as long as they have acquired the enrollment target for Commonwealth funded

students. Moreover, since 2005, the Australian higher education institutions can increase the proportion of full fee-paying students from 25 to 35 percent of total enrollment in each training program (ICHEFAP - International Comparative Higher Education and Finance and Accessibility Project, 2009). Hungary has not applied tuition fees since 1998 except for students with below-average performance in the entrance exams (ICHEFAP - International Comparative Higher Education and Finance and Accessibility Project, 2009). Meanwhile, the free higher education in Russia is guaranteed by the constitution. In 1996, Russian Law on Education introduced the concepts of higher education cost-sharing. At that point, more than 25 percent of the income of all universities came from students who passed the entrance exam with insufficient scores to qualify for State support. Besides, the Russian government also started experimenting with a new financial system that was based on government individual financial obligations (GIFOs), a voucher system that provides five levels of tuition fee subsidy from 0 to 100 percent for students based on their performance in the national entrance examination (Bain, 2001).

Another indirect type of “dual track tuition fee policies” is the charges as penalties for students who study longer than the original-designed program duration. For instance, Hungarian public higher education institutions charge tuition fees to students that take longer than the allotted five academic years to graduate apart from the low-performing students (proved in the entrance examination) as mentioned above (ICHEFAP - International Comparative Higher Education and Finance and Accessibility Project, 2009)

2.3 Setting tuition fee level

An adequate level of tuition fee remains a critical problem in policy making. In simple economic terms, higher education can be considered a service and students are its customers. Thus, the tuition fee level may be calculated by “positing an appropriate percentage of the underlying instructional costs that would be covered by tuition fee” (Marcucci and Johnstone, 2007). However, this is not such a simple mathematical problem. In fact, costs are differentiated substantially across higher education institutions and sectors. Specifically, costs for higher education vary across programs based on faculty-student ratios, equipment demands and other program-specific needs. For instance, the cost for programs in science, history, arts, or engineering is highly variable. Nevertheless, the calculation methods for instructional costs could be different

depending on assumptions or accounting conventions. This section of the chapter describes several factors to be taken into consideration in the process of determining a tuition fee level.

With the assumption that governments can maintain a relatively stable proportion of the State budget for the higher education system, policy makers must balance two main missions of a public service – ensuring quality and accessibility. In order to improve the training quality, raising cost per student (unit cost) is essential. Hayden et al. (2012) estimated that the proper unit cost for higher education in Vietnam to be competitive in the labor market was about 120%-150% GDP per capita. At the time Hayden's research was conducted, the GDP per capita of Vietnam was USD 1,755, implying the minimum competitive unit cost for higher education of about USD 2,100 (120% x USD 1,755). In fact, the 2012 average unit cost for higher education in Vietnam stood at only around USD 500-600. Therefore, this implies that there is still room for improving training quality for higher education in Vietnam by increasing unit cost. However, a higher unit cost of higher education means that higher education institutions will require a larger source of finance to fulfill it. Hence, given the above assumption on the State budget, "cost-sharing" between the State (in fact, taxpayers) and learners through tuition fee needs to be applied. By raising the contribution share of learners in the unit cost while maintaining stable distribution from the State, the quality of higher education may be enhanced.

It is believed that the appropriate tuition fee depends on the cost of the programs. Thus, as the argument goes, programs that have higher costs impose higher tuition fees. However, in some cases, individual benefits are believed to be attached to certain institutions or degree programs. Regardless of the differences of the underlying instructional costs, higher tuition fee is sometimes applied to programs for mere expedience or as the degrees are believed to bring the highest private return to students (and even their parents) in terms of future earning capacity, reputation, job security or other values in a profession or vocation (KMUTT, 2005). Hence, in the system of private and paid public higher education, tuition fee and other associated fees for Medical and other advanced Healthcare professional programs, for instance, are relatively higher than those for other majors. This not only reflects greater instructional costs but also higher market value of the degree (corresponding to relatively more adequate income and society status related to the future professions). In Mexico, the United States or Vietnam, for instance, the more prestigious higher education institutions or those belonging to more competitive categories (e.g., university versus

community college) charge higher tuition fees. In another similar research, Oktavinanda (2012) suggested that the tuition fee levels are usually determined by educational cost per unit of student, average annual income per family unit, type of the university, geographical location, or reputation of universities as well as State expenditures and expected future income of students upon graduating from the course.

The establishment of a “proper tuition level” becomes even more complex because of the interaction and inter-country variations between instructional costs and the presumed mixtures of public and private benefits (P. N. Marcucci; D. B. Johnstone, 2007). It is, for example, orthodox to believe that a research or “classic” university is more expensive per student compared to other higher education institutions that are of shorter-cycle, more vocational-oriented and less research-intensive (Vossensteyn, 2013). Therefore, the same proportion of costs covered by tuition fee would yield a higher tuition level in “classical”, research-intensive universities. Though the presumably greater unit cost of research universities might be appropriate for the case of medicine or other key science majors, it is unlikely to apply to other professional programs like law or business. In fact, though these programs are highly sought-after for bringing significant private benefits, they are generally inexpensively delivered, especially at the first-degree level.

Another challenge in establishing an appropriate tuition level is the fact that “a realistically expected family contribution cannot be derived simply from some ex-ante rule of what parents at various income levels ought to pay” (Marcucci and Johnstone, 2007). The calculation of this contribution also needs to consider the amount that parents are prepared to pay at a specific time and in a certain culture. For example, in Sweden, parents are paying extremely heavy taxes, but their children are enjoying the benefits from free higher education. In this nation, the imposition of tuition charges could be intensely resisted even by high-income parents who could afford the tuition (Vossensteyn, 2000). In contrast, as most of Chinese parents have one child only, they place an eminent emphasis on education (otherwise their child cannot be able to even contemplate higher education). Thus, these Chinese parents are apparently ready to make substantial financial “sacrifices” for their children to attend higher education (Li W. , 2005).

Nations with considerable private education have seen parents’ willingness to pay for their children’s higher (or even secondary) education to a greater extent. The United States is a conspicuous example with tuition for US private colleges and universities often exceeding USD

20,000 per year and total expense for an academic year reaching nearly USD 35,000. This made the public higher education tuition fee remarkably higher in the US than in other countries, which observe a rather modest and politically acceptable fee level of USD 6,000 – USD 8,000 (College Board, 2016). However, some nations including Japan, Brazil or South Korea have extensive private sectors in higher education but still feature low or even zero cost public “classic” universities (P. N. Marcucci; D. B. Johnstone, 2007).

In summary, there are several factors that can contribute to an “adequate level” of tuition fee for higher education. Firstly, the cost per student should be taken into account. It is necessary for the policy makers to estimate the minimum unit cost that is sufficient to guarantee an acceptable level of quality. Secondly, tuition fees should be varied across different courses and training programs as each of them possesses unique characteristics and thus, requires a dissimilar amount of financial resources. This may also be an effective tool for policy makers to control the distribution of graduated students in different sectors of the economy. By decreasing tuition fees in training majors that experience a shortage of human resources in the job sector, students as customers will be more encouraged to enroll. Another factor of consideration is the income of learners and their family. In particular, the willingness of parents and learners to invest in higher education is of importance as it directly contributes to the accessibility and equality of higher education. In short, by combining these factors, the policy makers may find a solution to their dilemma of “quality” or “accessibility” associated with higher education.

2.4 The impacts of introducing or raising tuition fee

One of the most likely impacts of tuition fee introduction or its increase is enriching the financial resources for higher education institutions. If the revenue from tuition fees surpasses the budget cut-off from the State, institutions will have a larger source of funds for use in a range of activities such as facility investment, training program improvement, salary increase or recruitment of lecturers and professors with higher qualifications, etc. Assuming that the added financial resources will be used appropriately, the quality of higher education is likely to be enhanced thanks to the introduction or increase in tuition fee.

On the other hand, governments in many nations are subsidizing higher education in an attempt to retain the lowest possible level of tuition fees at public institutions. One of the objectives for this is ensuring that higher education is accessible to all youths, irrespective of household

income level. As the tuition fees grow, there exists a concern where inequality in higher education enrollment may arise as youngsters from low-income families, in particular, are no longer able to afford to participate. However, increasing tuition fee may have both positive and negative influences on the equality and accessibility related to higher education, to be discussed further in the below paragraphs.

Under the fundamental economic demand framework, investment in higher education should inversely correlate with tuition costs. In other words, reducing cost, via financial assistance, for example, should raise the enrollment probability. Kane (1994) and St. John (1990) have concluded from their research (using data from High School and Beyond – HSB) that the number of students will be reduced from 0.5% to 1% if the tuition fee rises by USD 100. Using the data from the National Longitudinal Survey of Youth (NLSY), Rouse (1994) also discovered that if the increase in tuition fee was in the range of 10% to 15%, the number of students would decline by 0.1% for each percent rise of the tuition fee. However, in the case of Canada, as the tuition fee climbed, the number of students from families with average or low income was significantly reduced.

2.4.1 The viewpoint of pessimists: Lower accessibility and Higher inequality

Based on the perspective of sociological rational action theory (Breen & Goldthorpe, 1997) as well as classical human capital theory (Becker, 1993), it is expected that an increase in tuition fee may reduce accessibility and expand inequality in higher education. With reference to these theories, a higher cost of higher education will act as a barrier for marginal students, who might consider higher education an unworthy investment. Therefore, it is expected that increasing tuition leads to declining demand from learners and decreasing enrollment rates from those affected by the higher price. However, this scenario is only probable under the assumption that everything else remains constant. As average returns from higher education are expected to exceed the costs, there is no guarantee that higher tuition fees will reduce enrollment.

In fact, many empirical researches on these phenomena were conducted. Leslie and Brinkman (1987) stated that a significant increase in tuition fees usually led to a drop in demand for higher education in the United States, on average, an increase of USD 100 led to a 0.7% reduction in demand. Other studies revealed slightly smaller impacts and typically used USD 1,000 price change to estimate impacts on the demand (Dynarski, 2003; Kane, 1995). In Canada, an

increase of USD 1,000 in tuition fee could reduce the enrollment rates by 2.5% to 5% whereas in the United Kingdom, tuition fee increases of £1,000 estimated to decrease enrollment by 3.9% (Dearden, Fitzsimons, & Wyness, 2011).

In terms of inequality, a few works argued that escalation in tuition fee disproportionately impacted students with financial disadvantages. Heller (1997) updated the study of Leslie and Brinkman that students from lower social backgrounds are more responsive to changes in price and this finding was also confirmed in some other studies (Coelli, 2009). Although some credit constraints can be offset by a financial support system, a certain number of students may still be “risk averse” (Geven, 2015). Under the perspective of rational action theory (Breen & Goldthorpe, 1997), students with lower social backgrounds are more risk averse than students from higher social classes. This argument also explained why students with financial disadvantages were diverted away from higher education in Germany (Hillmert & Jacobs, 2003). For students from families of higher status, the costs of attending higher education can be offset by the social costs of not attending. In short, there are many causes to expect a larger reduction in higher education enrollment from students with financial disadvantages than others when tuition fee is increased.

2.4.2 The viewpoint of optimists: Higher accessibility and Lower inequality

There are a variety of strong counter-arguments against the viewpoint of pessimists. First of all, time-series data from macro-level showed an ever-escalating rise in higher education attendance besides the continuous increase in tuition fees over the last century (Schofer & Meyer, 2005). Secondly, higher education systems with higher tuition fees also have overall higher enrollment rates and are typically more inclusive than those without fees (Shavit, Arum, & Gamoran, 2007). Thirdly, there are several empirical studies that were unable to conclude a greater price responsiveness of financially disadvantaged students such as the researches of Ellwood and Kane (2000) or Carneiro and Heckman (2002).

One of the possible reasons for higher enrollment and improving equality thanks to increasing tuition fee is selectivity (Leslie & Brinkman, 1987). Students who face the option of attending higher education are already positively selected by (typically unobserved) ability and motivation. As a result, students from families of lower status are most likely selected based on these traits. Tuition fee, hence, plays only a marginal role in the decision of whether or not to enroll

in university. Students financially disadvantaged in particular may decide that the tuition fee of higher education is only a minor deterrent.

Furthermore, if the price of higher education is to play any role in the decision-making process, it can be offset by policy measures such as subsidies and loans. Carneiro and Heckman (2002) stated that during their decision-making process, only a modest proportion of students encountered remarkable liquidity constraints, which could be addressed by student loans or other forms of financial aid. Indeed, increasing tuition fees usually co-exists with several policy measures to compensate for its potential downside impact. Governments as well as higher education institutions are often seen providing subsidies, discounts, loans and/or other financial support to target students from lower income families.

2.4.3 Section Conclusion

By reviewing the impacts of tuition increase from both perspectives, it can be seen that increasing tuition fees have both favorable and adverse impacts on the accessibility and equality in the context of higher education. In order to minimize the issues of inequality and reduction in enrollment upon increasing tuition fees, the State and higher education institutions need to carefully consider the increased amount. Moreover, it is necessary to implement appropriate policy measures to compensate for this amount especially for students with limited financial capabilities. Thus, the next section will discuss some potential financial assistance.

2.5 Financial assistance (Financial aids) for students

“... There is no issue that worries the American public more about higher education than the soaring cost of attending college...”

The United States Federal Commission on the Future of Higher Education (2006)

There are many other costs associated with higher education beyond the direct cost of tuition or required fees. Zumeta and Frankle (2007) noted that the costs for studying materials, accommodations or health care services are also significant. Also, in this research, the case study in California showed that the community college fees represented only 5 percent of the total cost of attendance. Moreover, there is also the opportunity cost associated with college participation, including foregone earnings. When the cost for higher education is relatively high to family incomes, some level of financial assistance is indispensable for most families.

Generally, financial assistance from the government seeks students in need to help them cover tuition costs in full or partially and/or other living expenses. This ensures that qualified students from low-income families are not precluded from attending higher education because of their limited financial resources (Karhune, 2016). Furthermore, financial assistance is at times used to encourage participation of underrepresented minority groups in higher education or motivate the study of certain disciplines. However, in many nations, the access to the State financial assistance is based on academic performance instead of the need of students. In these cases, highly qualified students enjoy education services without paying any tuition fees or a significantly lower tuition fees than others.

In order to maximize the impacts of financial assistance, it is necessary to ask, who needs support to attend higher education courses? In other words, what kinds of students may be encouraged to participate in higher education via the means of financial assistance? Although all students are concerned about the cost for their higher education participation, most middle and upper-income students will attend college and university regardless of any level of financial assistance (Long, 2008). In contrast, the cost of higher education attendance is substantial for low-income students. Therefore, from the perspectives of policy-makers or higher education institutions, if their goal is the maximum impact of one cent spent on the enrollment rates, the fund should be directed toward this group. It is unsurprising that tuition fees and financial assistance have usually been found to have higher influence on the enrollment decisions of lower- rather than higher- income students (Long, 2008).

The core concept of all need-based financial assistance programs is to support people gain access to and pay for higher education (Brookings Institution State Grant Aid Study Group, 2012). In these programs, the primary goal is to help low-income students overcome financial difficulties of higher education; yet these programs usually have strict financial eligibility criteria and minimum requirements for academic achievement. The United States is considered the country with the most diversified scholarships and financial aid system (McBain L., 2011). Recently, need-based financial aid programs in the US mostly used the following criteria to determine the eligibility of students:

- *Degree-seeking status*: The overwhelming majority of the State aid programs require students to be seeking a degree.

- *Need is determination of FAFSA:* Student's financial needs are determined by the federal Free Application for Federal Student Aid (FAFSA). In fact, the majority of state need-based financial support programs require the FAFSA. *Income limit (state or federal):* Some states in the US set income limits for need-based financial aid based on either an applicant's state income tax return or federal Adjusted Gross Income (AGI) as reported on the FAFSA. *Additional criteria:* States can set other eligibility criteria. For instance, the applicants have graduated from a high school in the state; be able to or already be admitted to provide admissions requirements at a state institution; be working on his or her first baccalaureate degree; not be default on a federal or state student loan or owe a refund on a federal or state education grant; have registered for Selective Service if required; not be incarcerated; etc.

The FAFSA, the free application for federal financial aid, collects information on family income and assets in order to determine the Expected Family contribution (EFC), the amount that a family is estimated to be able to afford towards higher education expenses. The EFC contains many different elements, including the size of the family, the number of family members attending higher education, the age of oldest parents, the student's earnings and assets. In the case of independent students, who are either being 24 years old or older, or married, or having legal dependents, being an orphan, or having served in Armed Services, the calculation of the EFC is slightly different to other cases in which the parental contributions are excluded. However, regardless of the dependency status, if the earnings of a potential student are relatively significant, they should be taxed accordingly to cover the higher education costs. Thus, students who notably worked the year before entering higher education or while being a high school student will be penalized in the determination process of EFC (Collins, 2016).

In order to determine the level of a student's financial need, the US Government subtracts the EFC from the total cost of attendance, which is prorated based on the student's intensity (i.e. whether they attend full- or part-time courses) and includes tuition fees and other required fees as well as room, board and all other costs at the higher education institutions that the student attends. Basically, two identical students will have different levels of calculated need depending on the cost of their own courses. This level of need will be combined with the student's EFC to determine whether he or she is eligible for a particular government financial support (McBain L., 2011).

Meanwhile, the purely merit-based financial assistance programs are intended to support students who demonstrate exceptional academic results, regardless of financial need or lack thereof (Sjoquist & Winters, 2012). Specific criteria for solely merit-based financial aid might across programs but most of them have some common points as follows:

- *Standardized test scores:* The programs require a minimum score in a specific test (e.g. ACT or SAT in the US) for students to be considered for merit-based financial assistance. The programs also could be divided into tiers based on scores.
- *High school GPA and/or class rank:* The programs state a minimum GPA in high school as an entry requirement for students who can apply for financial aid. Additionally, the class rank is sometimes an extra criterion to compare students with similar GPA.
- *Other criteria:* Leadership, community services, volunteering activities, and sport or art talents, to name but a few, are sometimes used as factors for awarding merit-based financial aid.

Since 1992, the US Federal financial need calculations have excluded home equity and allow more middle-class students to be qualified for the federal need-based support (Schenet, 1993). The State, with the introduction of Georgia HOPE (Helping Outstanding Students Educationally) in 1993, began to promote more merit-based aid programs which appeared to favor upper-class students (Dynarski S., 2000; Cornwell, Mustard, & Sridhar, 2006). In addition, many institutions also shifted their financial support programs from need-based to merit-based as a part of their enrollment-management strategies.

Several strong papers have examined the influence of Georgia HOPE scholarship. For instance, Dynarski (2000), with the method of using natural experiment orientation with the October CPS data, compared the enrollment rates in Georgia to those in other Southern States before and after this financial support program. She found that the Georgia HOPE program had a dramatically promising impact on the higher education attendance rate of middle- and high-income students. The results noted that each 1,000 US dollars (in 1998) of financial aid raised the attendance rate in Georgia by 3.7 to 4.2 percent. Furthermore, the financial aid considerably impacted students' choices of course. Cornwell, Mustard, and Sridhar (2006), with the Integrated Postsecondary Education Data System (IPEDS), estimated that the Georgia HOPE scholarship increased the overall freshmen enrollment rate by 6.9 percent, which predominantly came from

four-year higher education institutions. Nevertheless, the benefits of the Georgia HOPE program were not equally distributed. The research of Dynarski (2000) concluded that the program widened the gap in higher education attendance between Black and White American students and between those from low-income and high-income families. The explanation is HOPE's relatively stringent academic requirements.

The government's financial assistance has *three* following main forms:

1. *Grants*: Awarded based on family needs (Australia, Canada, the UK, Germany, Hong Kong, Mexico, the US), academic performance (Mexico, Russia, communist and post-communist nations), and/or attributes such as ethnicity or home region (Australia, Brazil, Canada, the US) or even universal (Sweden).
2. *Loans*: Interest rates and repayment terms are usually subsidized by the government based on student and family means (Canada, Colombia, South Africa, the Philippines, the US) or forgiven based on low lifetime earnings (the UK, the US, the Netherlands) or fulfillment of some type of post-graduation behavior (the US, New Zealand).
3. Other types of indirect assistance such as family allowances (France), financial advantages from tax systems (Austria, Canada), and tuition deductions (the US) (Long, 2008).

The main objective of financial aid is to provide equal educational opportunities for potential students regardless of their financial capabilities. In fact, financial aids can promote educational opportunity, measured not only in terms of access to higher education but also the choice of institutions if there exist differences in fee levels amongst them. Equal opportunities of college choice for application are viable by mitigating the cost of the particular institution, which students desire to attend, thanks to financial support (Long, 2008).

Previous studies considered financial assistance a critical criterion in the higher education institution choice progress of students. Chapman and Jackson (1987) stated that, during their period, the probability of the potential US students to enroll in their second-choice institutions instead of the first choice could increase from 20% to 50% if the amount of additional scholarship is up to \$4,700 USD. Hossler and Christensen (2008) discovered that 80% of the US students considered the availability of financial aid as a key factor in their decision-making process in determining a higher education institution.

Particularly, each type of financial aid could have distinct effects on decisions of students from varying backgrounds. Leslie and Brinkman (1988) mentioned financial aids, especially *Grants*, could act as an encouragement for students to enroll in more expensive training courses. If students are given financial assistance in the form of *Grants* or work-study programs, they are more likely to participate in the institution compared to those offered *Loans* (St. John, 1991). Researching the difference between the number of financial aids and tuition fees at several elite universities, Hearn and Longanecker (1995) also supported this opinion, claiming that lower-income students are likely to choose higher education institutions of lower selectivity, even when their academic abilities and other factors are qualified.

It can be seen that *Grants* or scholarships have significant impacts on encouraging students to not only enroll in but also choosing higher-cost higher education institutions. However, *Loans*, which is another form of financial assistance, designed to expand the accessibility to all forms of higher education, could be a more superior instrument in certain cases. Student *Loans* are politically controversial because they are designed to transfer a portion of higher education costs onto students along with other cost-sharing forms. *Loans* can equally be perceived as a way to maintain the accessibility of students if tuition fees and other forms of cost-sharing are unavoidable plus the student's families are not capable of covering their cost of attendance (Nunnenkamp, Thiele, & Wilfer, 2005).

Governments may prefer *Loans* over *Grants*, or low tuition fees for all, in which the loan (even if funded initially from the State budget) is theoretically an asset rather than an expenditure even if partially subsidized. Apart from its advantages, however, *Loans* require caveat in practical application. In fact, the caveat should be used as many financial assistance programs are unable to recover more than a fraction of the amount lent. This may be caused by extremely low interest rates, default loans or insufficient means-testing. Furthermore, some households, particularly in certain cultures, such as some Islamic cultures, are resistant to borrowing or averse to the interest payments for religious reasons. Yet student debts can become a problem if students take on far more debt than their repaying capabilities, even in nations as accustomed to cost-sharing, high tuition fees and student *Loans* as the United States or the United Kingdom's (Nunnenkamp, Thiele, & Wilfer, 2005). Nevertheless, student loan schemes will continue to take a critical role in

reconciling the need for supplemental revenue with that for maintaining and expanding educational accessibility (Tumen & Shulruf, 2008) thanks to:

- The high and rising costs of higher education plus the demand for cost-sharing systems to supplement increasingly inadequate governmental revenues in many countries;
- The significant private return for students from higher education (both monetary and non-monetary);
- Its substantial cost-effective access to higher education if the student loans are granted with appropriate interest rates and lent, managed, and recovered plans.

Indeed, *Loans* for students are an integral part of higher education finance systems in many countries such as: the US and Canada in North America; the UK, Sweden, Norway, Denmark, Germany, the Netherlands and Portugal in Europe; Kenya and South Africa in Sub-Saharan Africa; Chile in South America; and Japan, South Korea, and China in Asia. The student loan schemes in each country are differed in:

- The average levels of indebtedness;
- The form of repayment obligations (income contingent or fixed schedule);
- The interest rates or the government subsidization levels (the degree to which the *Loans* are actually in part *Grants*);
- The degree to which the funds go through student's accounts or are simply considered as obligation to be repaid like an income surtax after graduations;
- The sources of capital (specifically whether the loans come from public treasury, or private savings in banks, or pension funds or other non-banking sources of capital);
- The bearer of risks (considering student *Loans* are inherently risky and possibly default);
and
- The degree to which the loan schemes are open to both private and public higher education sectors.

Generally, student *Loan* programs need to have such characteristics as: properly designed with appropriate level of real interest rates, sufficient repayment periods, means-tested rationing, and effective provision for dealing with unmanageable debts. They are also required to be efficiently disbursed and collected while being able to access the private capital market without

bothering the State operating budget (Johnstone D. B., 2015). If these criteria can be guaranteed, student loan schemes could be one of the components of a comprehensive higher education financing scheme (especially in the public sector) along with tuition fees, *Grants*, and other financial assistance programs for students.

2.6 Marketization of higher education

Higher education is crucial for any nations because it traditionally creates the elite group of people who have the role of leading the society politically, culturally and economically. Therefore, the benefits that higher education brings to the society should be considered more important than the benefits for individual learners. As a result, funding for higher education institutions should be mainly a responsibility of the State. However, changes in social and economic structure in recent decades have created a different situation. The development of science and technology has led to a transfer of simple works from human force to machines while the market demands further skillful labor force. Consequently, higher education is no longer the prerogative of the elite group, and the “private benefits” of attending higher education has become more prominent. As the access to higher education is widen, the State budget in many countries, especially poor ones, is no longer able to subsidize the institutions as before. Under this circumstances, other financial policies must be considered and “marketization” is one of the potential ones.

“Marketization” can be understood as a combination of phenomena including “introduction of tuition fees, admission of private suppliers of higher education institutions, new forms of control, the economic use of scientific findings, etc” (Hoelscher, 2016) which share a common purpose of generating revenue for universities. Brown (2015) defines “marketization” as actions that aim to provide higher education on a market basis, in which the supply and demand relationship of student training, scientific research and other institution’s activities is balanced by the price mechanism. Under the “marketization” policies, the higher education institutions need to exhibit at least some of the following principles: (1) self-financing; (2) operation management in accordance to economic market model; (3) focusing on maximization of efficiency and effectiveness; (4) competition; (5) accountability; (6) institutional autonomy; (7) quality assurance (Nguyen, Nilson, & MacKinnon, 2010).

The advantages of “marketization” in higher education can be forecasted under a common logic that a stronger market orientation contributes to higher level of effectiveness and efficiency in fund usage of the institutions. Under the market-oriented environment, institutions will be forced to compete for the best students and professors while professors have to improve themselves to receive higher salaries (Brown, 2015). As a result, the training quality is expected to be enhanced and institutions will also be required to pay higher attention to the needs of their students.

On the other hand, the students should not be considered as normal “customers” who buy educational services like buying a product in supermarkets. Education is considered as a special service because its customers play a critical role in the value creation process of the economy and society (Díaz-Méndez, 2011). Universities can sell their certificates but not skills, knowledge, attitudes, values, and qualities. The degree that students receive is just the convention of these values. Therefore, the relationship between customers and products in higher education is not notorious. Moreover, if the institutions operate like suppliers in the economy, they have to place the balance of their revenue and expenditure above the public benefits while educational values are packaged in a certificate which is marketed and sold like any other products. When institutions will try their best to satisfy the demands of learners, there will be a proportion of learners who desire the quickest certificate with the lowest amount of studying. Meanwhile, the institutions also need to minimize the training costs. As a result, a mutual benefit between two sides occurs and leads to worthless higher education degrees and distorted higher education market. This situation is easier to happen in developing countries with immature labor market. (Pham, 2018). Furthermore, under the motivation of profit-seeking, the tuition fee could be significantly increased and prevent people to attend higher education. This might lead to larger gap between the poor and the rich in society and decrease in social justice.

Although researchers are still arguing at many aspects of marketization of higher education, all of them agreed that higher education, unlike other economic market, must have a deeper control of the State. The role of the State is establishing policies to create a diversified higher education model to serve the diverse needs of society. Under this system, public institutions are maintained to overcome and compensate for the shortcomings of private sector. Focusing on serving public interest, mitigating inequality, widening access for poor students should be the

priority of the public institutions. All of these will hardly come true if public higher education institutions are forced to operate in purely market dynamics.

2.7 Chapter conclusion

Within the first chapter, the paper discussed the definition of tuition fee for higher education in different perspectives, especially under the *cost-sharing* concept. It can be seen that a “proper” level of tuition fee is differentiated among different majors, institutions and higher education systems. Generally, there are three main types of tuition fee policies, namely *Tuition fee for all (Upfront or Deferred)*, *No tuition fee* and *Dual-track tuition fee*. Each type has its own advantages and disadvantages. Therefore, it is necessary to review the purpose and the perspective of the government (as the policy maker) on higher education to apply a proper tuition fee system. In addition, the literature introduced the ideas of learning from nations with different education systems. Experience from these systems could suggest potential solutions to improve the situation in Vietnam. Last but not least, the review on Vietnamese research on Vietnam’s tuition fee policy situation showed that the government did not find a detailed plan to deal with this problem. Furthermore, the literature on the tuition fee system in Vietnam is still limited and thus unable to provide a sufficient scientific foundation to policy makers and higher education institutions in determining an adequate tuition fee level. The urge for improving the training quality of Vietnamese higher education institutions is accompanied by the pressure from increasing the operating budget, to which an expansion of revenue from tuition fees is a potential solution. Nevertheless, how and to what extent it should be raised are to be considered carefully. In addition, as higher education is a special public service much needed to ensure equality in society, financial support programs should also be included to provide opportunities for students with low financial capabilities. In conclusion, the literature review suggested the following research objectives:

- Investigating international experience to find out potential solutions to the cases in Vietnam;
- Gathering the opinions of Vietnamese students on the current tuition fee level and their expectations;
- Reviewing the plan of some Vietnamese higher education institutions and their perspectives on tuition fee issues.

By analyzing the results of the research objectives as a whole, the paper can suggest a proper tuition fee plan for Vietnamese higher education institutions to boost their revenue while ensuring equal opportunities of participation, especially for low-income students.

Chapter 3 – Methodology

This chapter provides a description of research methods and design. In particular, it focuses on explaining how the research purposes and research questions are addressed. Specifically, the first section of this chapter discusses the research question, research tasks, research objectives as well as the scope of research. The second section suggests the selected research method and its appropriateness. The third part provides explanation on the research sites, their profiles and the reasons behind the site selection. This is followed by a complete description of the required data and data collection method. Next, the fourth part clarifies the ethical consideration in this research. Finally, the fifth part concludes the research methodology and highlights its limitations.

3.1 Research Approach

Research method and design are decided by the nature of the research questions and purposes of the thesis. They occupy the pre-established research questions, locate the necessary data to address these questions and determine appropriate data collection instruments. Research questions can be effectively addressed if the researcher chooses applicable research methods and design. Every research design and method have their own strengths and weaknesses. Hence, research method selection plays a crucial role in the accomplishment of the research.

Rowley (2002:17) suggested three factors that should be seriously considered in choosing the research methodology. They are (1) the type of research question, (2) the level of the researcher's capability to dominate behavioral events, and (3) the scale of focus on contemporary events, in contrast to historical events. Based on this guideline, the method of case study could be an appropriate direction for the research. According to Cousin (2005), case study method was a good way to describe cases for an easier understanding and Baxter.Jack (2008) also suggested that this method could give researchers the tools to study a wide-ranging view within their contexts. Moreover, Creswell (2013) stated: "The case study method explores a real life, contemporary bounded system or multiple bounded systems over time through detailed, in-depth data collection involving multiple sources of information... and reports a case description and case themes". The aims of the case study method, according to Solberg Soilen and Huber (2006), are the generation of background material to a discussion on a concrete issue and this method is often used when it is difficult to find an absolute solution. These descriptions appear to match the research on higher education tuition fee systems in Vietnam in which a number of factors should be taken into

account. They include the State budget, income level of the population, culture and characteristics of Vietnamese people as well as the economic situation and resources of higher education institutions among others. Furthermore, tuition-free and tuition-applied systems both have their advantages and disadvantages, implying the non-existence of a perfect policy.

The case study method brought the unavoidable choices to the researcher between single- and multiple-case study methods. Single case study method is better when the researcher aims for a deeper understanding of the subject being explored and richer descriptions of a phenomenon (Yin, 2003). Meanwhile, researchers opting for multiple case study methods often focus on understanding the differences and similarities between the cases (Baxter & Jack, 2008; Stake, 1995). One of the advantages of a multiple case study is that the researcher can analyze data within each situation and across different situations. The researcher, however, has to be able to understand the similarities and differences between his chosen cases. Another benefit of multiple case study method is that the evidence generated from this method tends to be stronger and more reliable and that the writer can clarify if the findings from the results are valuable or not.

This thesis concentrates on understanding the limitations of the current tuition fee policies for public higher education in Vietnam and aiding in the orientation for the State to adjust current policies to improve education quality while ensuring the interest of learners in the future. In order to explore the orientation of the tuition fee policies for a developing country like Vietnam, given that the research resource is unavailable for experiments, reviewing and observing the development process of more advanced and successful systems are the one and only reasonable solution. Therefore, in the writer's opinion, the multiple case study approach should be selected. However, a social-financial problem such as that of tuition fee is inherently complicated to be grasped completely within a single method of research plus all social research methods have their own strengths and weaknesses. Therefore, it is reasonable to use more than one research method to overcome the weaknesses to have a more holistic view of social realities. An appropriate solution may be "triangulation", which is often referred to in social sciences as a process of verification that improves validity by combining two or more theories, sources of data, research methods or investigators in one study (Rahman, 2012).

As this research already reviewed historical events, documents and researches in the case studies, analysis based on only these sources of information might be biased by the viewpoints of

the author. Hence, it is necessary to include at least one more source of data and research method. Within the capability of the researcher, interviewing experts or people whose works related to the research topic was suitable for some reasons. In particular, interview research methods may add a more in-depth understanding on the practical situation, which sometimes cannot be fully investigated by reviewing documents alone. By selecting interviewees as experts and workers in the field related to the research topic, the author expected to receive not only relevant data in the sphere of higher education institutions but also their suggested solutions to the research questions. Moreover, interviews can provide up-to-date and practical information in addition to the data collected from documents and previous research studies. Furthermore, the questionnaires were also applied to reveal the perspective of learners. Under this perspective, the research seeks the expected tuition fee level that might be accepted by students as well as their requirements if the tuition fees increase.

3.2 Scope of research

In Vietnam, the majority of higher education institutions belong to the public sector. Furthermore, these institutions contain an outstanding number of students compared to those in the private sector. As the resources for the thesis is limited, regarding the research space, the thesis only studies public higher education tuition fees in the case study of Vietnam.

In terms of international case studies, the research selected the models and historical data of education systems from Germany, China, and the United Kingdom. These three nations were chosen because of several reasons. First of all, they are all considered countries with more advanced higher education systems than Vietnam. Specifically, Germany is one of the famous examples of a successful no-tuition system while the United Kingdom is the case of marketization in higher education with relatively high tuition fees worldwide. On the other hand, Chinese higher education provides a vast number of highly qualified human resources not only for its domestic labor market but also international one. Secondly, the economic development of China in recent years and their political system possess great similarities with Vietnam. Moreover, “with nearly over 1,000 years under the Chinese imperial rule, Vietnam was heavily influenced by Chinese Confucian ideas and ideology, leaving indelible impacts on Vietnamese education and culture that still persist today” (Nguyen H. T., 2007). This thus hints that studying the Chinese model can provide a possible orientation for tuition fees at higher education level in Vietnam.

In summary, by reviewing the systems of Germany, China and the United Kingdom, the dissertation shall be in a better position to propose suggestions on a potential orientation for some suitable adjustment in higher education tuition fee policies in Vietnam.

With the background knowledge from Chapter 2 – Literature review, it was hinted that the possible orientation for tuition fee policies of the higher education system in Vietnam could be tuition fees for all, whether *upfront*, *deferred*, no tuition fee or dual track tuition fees. In order to decide which policy is appropriate for Vietnam, it is crucial to review historical data from other nations that applied each type of policies. Considering the available resources and the capabilities of the researcher, the thesis will focus on the three countries that have attained remarkable success with their higher education tuition fee policies - Germany, China and the United Kingdom. The term “success” here refers to such factors belonging to a country as a strong economy, a high-quality labor force, a large number of students attending higher education, high quality education with recognition from other countries.

Germany is now regarded as one of the most successful countries with no tuition fee in higher education while the UK is considered one of the best examples for “tuition fees for all” system; and China’s economy has been hyper developing in the last few decades with high quality and great quantity labor resources. However, before reaching this point, all of these three higher education systems went through several significant reforms, such as the introduction of tuition fees and their subsequent adjustments.

3.3 Research process

3.3.1 International cases

All three case studies (Germany, China and the United Kingdom) were designed in similar forms. First of all, historical events and official documents related to higher education tuition fee policies in the last few decades will be reviewed. Through such reviews, any similarities and differences of each case compared to Vietnam’s could be revealed and highlighted. Each type of policy has its own strengths and weaknesses, however, which one could be an appropriate orientation for Vietnam going forward? In order to answer this question, the reasons behind the application of different tuition fee policies in Germany, China and the United Kingdom must be investigated as the next step of the research. In this step, evaluations on historical events from previous researchers is extremely valuable. As it is impossible for the author to thoroughly

investigate each historical event in four different countries, the inheritance of opinions and suggestions from other researchers who studied historical policies is sufficient for the thesis. Lastly, the efficiency of tuition fee policies in each country will be analyzed in several terms such as the number of students, income sources for universities, media, and social evaluations, etc. The combination of all of these factors is assessed to examine the legitimation of tuition fee policies in each country. Moreover, by comparing the development process of these three nations with the case of Vietnam, valuable lessons could be learned with the possible implication of a suitable development orientation for Vietnam.

3.3.2 Case of Vietnam

The higher education system in Vietnam, as the main subject of the study, is inherently to be studied deeper than the other three cases mentioned above. Therefore, the first section of the case study will focus on drawing an overview picture of the situation in Vietnam. Several figures and data gathered from official documents of the General Statistics Office of Vietnam in the last two decades will be reviewed. These data describe the scale of the system in terms of the numbers of institutions and students, the distribution of institutions in the country, the distribution of students across different majors, the number of lecturers and professors, etc. Moreover, the governance system of the State on higher education institutions in Vietnam shall also be illustrated. The combination of these will focus on finding the general characteristics of the higher education system in Vietnam, in comparison with the other three case studies while also describing the development process of the system in the last few decades.

As tuition fee is considered a source of finance for higher education institutions, reviewing the financial condition of public universities in Vietnam is indispensable in the research. Hence, the next section will study this area. Based on financial reports of Vietnamese public universities and documents from the General Statistics Office of Vietnam as well as annual reports from Vietnam Ministry of Education and Training, an overview on revenues and expenditures of public universities can be drawn. Furthermore, a few public universities in Vietnam were allowed to experiment financial autonomy, which attained some positive results. Therefore, the next part of the section shall discuss the effects from the autonomy pilot program. In particular, it will hint possible outcomes from increasing tuition fee and financial independence of higher education institutions. Furthermore, in order to discover deep insights into the current situation and factors

impacting the expected tuition fee level of Vietnamese students, the research used questionnaires to survey their present conditions, satisfactions, and demands. Through this, the requirements for implementation of changing tuition fee policies are to be revealed.

3.3.2.1 Analysis on data from financial and annual reports; interviews with representatives of selected universities

As previously mentioned, the autonomy pilot program was applied at 10 Vietnamese public higher education institutions, in which greater independence in deciding a level of tuition fee played an important part. Therefore, reviewing their annual reports, especially the financial ones, might provide strong evidence of the effectiveness of tuition fee rise in terms of the financing, training quality and operation of the universities. The research will compare two different periods including 2 academic years before the autonomy program (2013 - 2014) and 2 years of autonomy program (2015 -2016). The 10 universities involved in this pilot program included 4 in Hanoi and 6 in Ho Chi Minh City (HCMC), which was reasonable as most of the well-known higher education institutions in Vietnam were located in these two cities.

In addition, referring to the opinions of experts and financial administration boards of these 10 public higher education institutions in Vietnam is indispensable to this research. As they directly deal with the financial situation of the institutions as well as matters related to tuition fees, they can be considered the most practical source of information. By reviewing their responses during interviews, the research expected to have invaluable insights into existing challenges and desires of the institutions, current tuition fee levels and the orientation of tuition fee policy development of the institutions. Specifically, contents of the interviews focused on the following main points:

- The current tuition fee levels (1 semester/5 months)
- The differences in tuition fee levels among training majors
- The variation of tuition fee levels in the last 5 years
- The financial incomes of the institutions (proportion from State budget, tuition fees)
- The variation of financial income levels
- How the institutions estimate their tuition fee levels
- How students respond to the current tuition fees
- How the institutions ensure the benefits of learners

- The future plans of the institutions on tuition fees and benefits of learners
- Recommendations for the State on tuition fee policy applied on public higher education system

Specifically, the list of universities and their characteristics are described in the table below:

Table 1. List of surveyed universities that participated in the financial autonomy pilot program in Vietnam

Institutions	Location	Number of Students	Main training major
Vietnam National University of Agriculture	Hanoi	Approximately 40,000	Agricultural sciences and technology
Hanoi University	Hanoi	Approximately 25,000	Languages
University of Finance – Marketing	HCMC	Approximately 13,000	Finance and Marketing
Industrial University of Ho Chi Minh City	HCMC	Approximately 21,000	Industrial technology
University of Economics Ho Chi Minh City	HCMC	Approximately 51,500	Economics
Ho Chi Minh City Open University	HCMC	Approximately 15,500	Multidisciplinary
Ton Duc Thang University	HCMC	Approximately 9,500	Multidisciplinary
National Economics University	Hanoi	Approximately 45,000	Economics
Ho Chi Minh City University of Food Industry	HCMC	Approximately 27,000	Industrial technology
Electric Power University	Hanoi	Approximately 17,000	Electrical technology

Source: Author's description

3.3.2.2 Analysis on data from questionnaires

By using questionnaires, the research surveyed opinions of students from the National Academy of Public Administration, Hanoi University of Science and Technology and Vietnam University of Commerce in an attempt to obtain research samples in three well-known public higher education institutions in Vietnam. The questionnaire tested the reliability and relevance of the question through the test survey, using SPSS 23.0 software. The thesis has conducted surveys from September 15 to December 15, 2018, at the end of which 1,004 full responses were received.

The questionnaires (in Appendix A) were divided into two main parts to explore the following two issues:

- a) The current tuition fee that students are paying and student's satisfaction on its appropriateness
- b) Factors that can impacts the expected tuition fee level from perspectives of learners

Firdaus (2006) suggests there are several factors that can impact the expected level of tuition fee of students. The 3 groups of factors were used to create a regression model as follow:

$$Y = f(F1, F2, F3)$$

In which: Y: Expected tuition fee

F1: Group of factors represents the characteristics of the institution

F2: Group of factors represents the characteristics of learners

F3: Group of factors represents the incomes of learners' families

The questionnaires were designed to explore these groups of factors as follows: The content of the survey is divided into 3 main groups of factors that can affect satisfaction level of students including characteristics of learners, characteristics of student's household and characteristics of the institutions.

- Characteristics of learners
 - o Student's major of study
- Characteristics of student's household
 - o Average parent income from their main occupation

- Characteristics of the institutions

- Mainly focusing on the group of factors to evaluate the current educational quality including groups of factors: Quality of training programs; Quality of lecturers; Facilities; Course management activities; Additional accumulated skills (presentation skills, communication skills, teamworking, etc.)

All multiple-choice questions on satisfactions of students used in this survey was under the form of Likert's (1932) five-level scale of agreement or disagreements. Specifically, the scale was divided from 1 to 5 as follow:

1 – Very unimportant

2 – Unimportant

3 – Neutral

4 – Important

5 – Very Important

Within the factors which represent characteristics of the institutions, each factor is examined by several questions and the average grade for each of these questions is estimated based on the leap (L) of five-level scale. In which, L was calculated as follow:

$$L = \frac{5 - 1}{5} = 0.8$$

Therefore, if \bar{y} is the average grade for all questions about one factor, the level of student's satisfaction will be estimated as follow:

$1.0 \leq \bar{y} \leq 1.8$: Grade 1 – Very unimportant

$1.8 < \bar{y} \leq 2.6$: Grade 2 – Unimportant

$2.6 < \bar{y} \leq 3.4$: Grade 3 – Neutral

$3.4 < \bar{y} \leq 4.2$: Grade 4 – Important

$4.2 < \bar{y} \leq 5.0$: Grade 5 – Very Important

Based on the data surveyed from the students, the research proposes these hypotheses:

Hypothesis on factors representing characteristics of the institutions

H₁₁: Better course management create positive impacts to the expected tuition fee level

H₁₂: Higher quality of lecturers create positive impacts to the expected tuition fee level

H₁₃: Higher quality of training program create positive impacts to the expected tuition fee level

H₁₄: Better facilities create positive impacts to the expected tuition fee level

H₁₅: Better additional accumulated skills create positive impacts to the expected tuition fee level

Hypothesis on factors representing characteristics of the learners

H₂₁: There are differences in supporting higher tuition fee level among different majors of study

Hypothesis on factors representing income level of student's family

H₃₁: Students with financial advantages (family income > average level) have higher support for tuition fee increase than students from lower income group

These hypotheses were designed to answer two main questions:

- H₁₁ to H₁₅: What should higher education institutions improve if they want to increase tuition fee?
- H₂₁ and H₃₁: Who will support higher tuition fee? (rich/poor or depends on majors of study)

The levels of supporting higher tuition fee are depended on the difference between the current tuition fee and expected tuition fee of students. The supportiveness of students will be estimated based on this calculation as follow:

1. <-200,000 VND: Highly oppose
2. -200,000 VND to <0: Oppose
3. 0: Neutral
4. >0 to 200,000 VND: Support

5. >200,000 VND: Highly support

In order to test these proposed hypotheses, the research uses several different statistical methods. Within the factors representing characteristics of the institutions, the research not only seeks for testing the hypotheses but also desires to compare their impacts on the expected tuition fee level of students. By comparing these impacts, the priority of conditions for implementation of tuition fee increase might be suggested. Therefore, regression correlation analysis is applied. On the other hand, the One-way ANOVA method is applied on H₂₁ and Independent-Sample t-test is used on H₃₁.

To sum up, the data collected from students, besides providing practical information about the current tuition fee and students' satisfaction on it, helped the researcher to evaluate factors that might influence the expected tuition fee level from the perspective of learners. Based on this valuable foundation, conditions that public higher education institutions in Vietnam will be required in order to increase tuition fee will be suggested.

3.4 Conclusion

Chapter 3 presents the research design based on the characteristics of the research and reasons for the selection of study methods. Firstly, the research questions are designed for an ultimate purpose which is improving the tuition fee policy for the public sector of higher education in Vietnam. The tuition fee policy in Vietnam not only has to reduce the financial burden for the budget of the State and public higher education institutions but also needs to be reasonable for learners.

Secondly, this research requires multiple case studies. The case studies are German, Chinese, British and Vietnamese higher education systems. The qualitative data is demanded as the author seeks for a deep understanding of the situation from the perspectives of universities and exploring the possible orientation of the policies in future. These data can only be gathered through in-depth interviews with the experts, collected documents on historical data as well as financial and annual reports of the institutions in Vietnam.

Thirdly, this chapter has described the contents and participants of interviews conducted by the author. Finally, the description of the questionnaires and empirical analysis was presented.

This source of data reveals the demands from the side of learners to accept an increase in tuition fee.

Chapter 4 – International case studies

4.1 The change in tuition fees in a Federal Higher Education System: the case of Germany

Germany is always a case that draws the attention of researchers studying tuition fee policies. Similar to many other European nations, Germany has witnessed a wide variety of higher education reform ambitions during the last few decades (Braun & Merrien, 1999). Specially, the administration structures of universities have adjusted with, as in other nations, the orientation towards New Public Management Model (Amaral, Meek, & Larsen, 2003). This can be considered that the influence of the university presidents and the deans on the operation of the institutions is significantly strengthened while the positions of academic committees are not important as it used to be (Kehm & Lanzendorf, 2006). Moreover, the relationship between higher education institutions and the corporate sector has become more connected for the last 20 years thanks to plenty of political reform measures plus a wealth of activities from entrepreneurial scientists (Paradeise, Bleiklie, Ferlie, & Reale, 2009). Through these changes, it can be seen that the German higher education system is rapidly evolving in various aspects.

During these changes, although many international trends are affecting the New Public Management and marketization in German's higher education sector, one distinguishing feature is that in the immediate future, public higher education institutions do not and will not charge any tuition fees. In fact, there are private institutions that apply tuition fees in Germany, yet their relevance is relatively limited in international comparison. In fact, the reputation of private universities in Germany is not as high as that in other nations such as the United Kingdom or the United States (Ertl, 2005). Therefore, German higher education should be regarded as predominantly free of tuition. As a matter of fact, German universities are financed almost fully by direct or indirect distribution from the State.

In truth, there were some attempts at tuition fee introduction in Germany. In 2006, students in several federal states had to start paying around €500 per semester. Nevertheless, since 2008, all of the federal states removed tuition fees (Paradeise, Bleiklie, Ferlie, & Reale, 2009). As we can see, what is interesting is that the introduction of tuition fees in Germany was politically impossible even though a trend of developing marketization is undeniable. This might be explained by a combination of three factors. Firstly, the substantial orientation towards the welfare state that

forced tuition fees for higher education into a heavily-charged political question. The solutions to this question, meanwhile, were decided by the arguments of social justice. Secondly, the media usually focused on the suspicion of effects of tuition fee applications on the education sector. These two factors together with the federal structure of German higher education led to the fact that tuition fees were not being considered legitimate, resulting in a “liability of newness” effect as described in an innovation and organizational research (Freeman, Carroll, & Hannan, 1983). Thus, this effect prevents the permanent establishment of something new. The failure of applying tuition fees in Germany occurred as an influential reaction to the social systems of science, education, politics and mass media.

As the debates on and the history of German tuition fee system remain a popular subject for many researchers, this part of the paper will focus on the effects of tuition fee and the question of its legitimacy in Germany. Through the experience in the case of Germany, the effects of tuition-free systems as well as its difficulties might be explored, via which some lessons might be discovered and applied for higher education tuition fee policies in Vietnam as appropriate.

4.1.1 Tuition fee system for higher education in Germany: Historical review

Tuition fees were traditionally part of the financial resource of higher education institutions in Germany. In the 1960s, the fees stood at around 120 to 150 Deutsche Mark (DM) per semester until its abolition in the end of 1970-1971 academic year. The purpose of this termination might be to encourage disadvantaged groups of students to enter higher education (Card & Lemieux, 2000). The free higher education system, since then, seems to be closely bound up with the concept of equality and social justice.

Following the abolition of tuition fees in the 1970s, the federal state of Baden-Württemberg reintroduced tuition fees (at €511 per semester) in 1997. However, this fee level was not applied to all students, but only long-term students who had more than four semesters to complete their degrees (given that there are averagely nine semesters per a degree course). In 2003 and 2004, the federal state of Bavaria, Hesse, Lower Saxony, Saarland, Saxony-Anhalt and Thuringia established similar fee levels. At that time, the fees for long-term students could be regarded as “back-door” tuition fees (Ertl, 2005). Consequently, the quantity of registered students was significantly reduced as a success under the perspectives of some politicians. Specifically, the number of students who had enrolled for more than fifteen semesters dropped by about 87,000

units from the winter semester in 2003 to that in 2004 (Federal Statistical Office of Germany, 2004-2005). These figures suggested that a noticeable number of students were no longer seriously studying or entered a second-degree course in order to maintain their higher education status and its privileges (e.g. public transport discounts and social insurance).

According to the German constitution, the federal governments should be held responsible for managing higher education institutions. However, in 1969, amendments to the constitution gave the national government the power to enact framework legislation for higher education institutions. This was mainly enforced by the means of the Framework Act for Higher Education, which was used to prevent tuition fees. In fact, this legislation was largely subject to dispute with six federal states proposing the case to the constitutional court. On 26th January 2005, the court decided that the ban on tuition fees by the national government was unconstitutional and, thus, invalid (Federal Constitutional Court of Germany, 2005). The national government was concluded as overstepping their authorities to set the framework legislation for higher education, unconstitutionally restricting the powers of federal states. As a result, seven out of sixteen states introduced tuition fees for higher education in 2006-2007.

Following this introduction of tuition fees, students had to pay €500 per semester (or €1000 per academic year), which was applied similarly across all universities within each state. However, there were two exceptions in Bavaria and North Rhine-Westphalia where higher education institutions were able to freely decide if they needed to set fees. If they did, the quota for tuition fees was €500 per semester.

Table 2. Timeline of tuition fee establishments in seven federal states of Germany

Federal States	Introduction decision date	Implementation	Abolition decision date	Abolition
Lower-Saxony	Dec 2005	WS-2006	Dec 2013	WS-2014
Hesse	Oct 2006	WS-2007	Jul 2008	WS-2008
Saarland	Jul 2006	WS-2007	Feb 2010	SS-2010
Hamburg	Jun 2006	SS-2007	Sep 2011	WS-2012
North Rhine-Westphalia	Mar 2006	WS-2006	Feb 2011	WS-2011
Bavaria	May 2006	SS-2007	Apr 2013	WS-2013
Baden-Württemberg	Dec 2005	SS-2007	Jul 2011	SS-2012

Note: WS: Winter Semester; SS: Summer Semester

Source: Author's description from www.studis-online.de

4.1.2 The influence of tuition fee and its questionable legitimacy

Under the perspectives of the media and major sections of the population, a legitimate tuition fee should increase the overall funding of higher education institutions and this additional source of income should be focused on improving the quality of education. Yet the controversial nature of tuition fees positioned its effects as the subject of permanent scrutiny. A variety of measures to prevent increased social selectivity are continuously invented and applied while the media and opponents of tuition fees regularly examine its legitimacy requirements.

In fact, the uncertainty of the consequences of measures that have not been established can be used to undermine their legitimacy. This uncertainty is much more difficult to utilize for maintaining and building legitimacy. Therefore, the proponents of the tuition fee system had to depend on the fulfillment of legitimacy requirements from the media and the society. On the other hand, uncertainty in the public's eyes regarding the effects of tuition fees was sufficient to keep the discussions and arguments on the topic alive.

In general, the legitimacy of higher education tuition fee system could only be ensured in the views of media and public if:

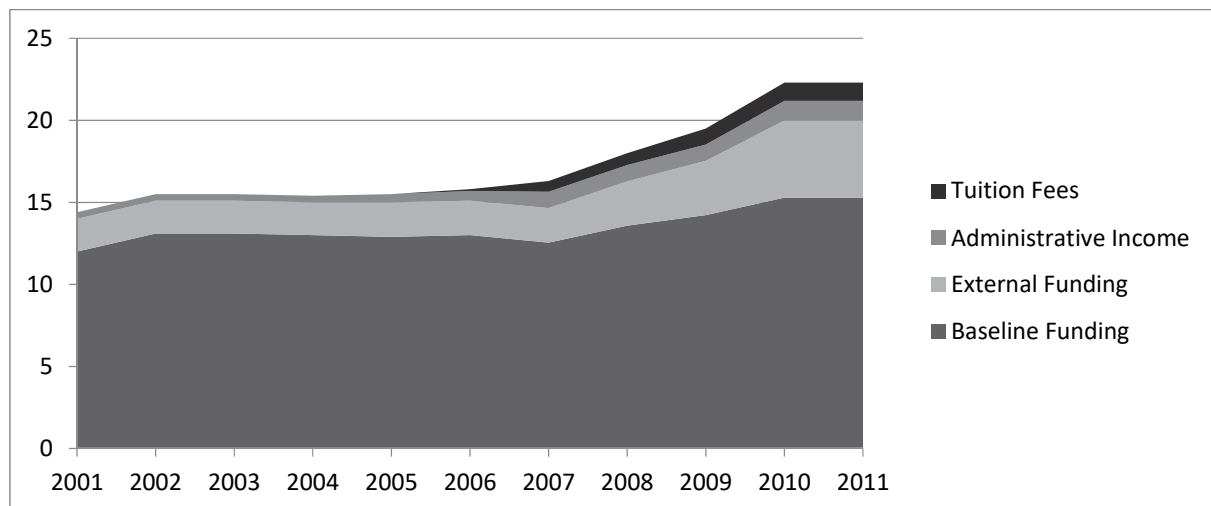
- No reduction in State funding occurs

- Revenue from tuition fee is only used for improving quality of higher education
- The social selectivity of higher education is not increasing

Hence, the paper will examine how these three conditions could be fulfilled as well as whether the legitimacy of the tuition fee system was confirmed in public discourse.

4.1.3 Will State funding for higher education be reduced as a result of tuition fee establishment?

During the 1990s and first half of 2000s, funding for higher education in Germany was barely increased or even cut down. This led to several financial problems for this sector. However, the situation has remarkably changed since 2007 with a drastic climb of expenditures of universities and universities of applied science. The “Excellence Initiative”, which aims to support top-level research, was established with about €4.6 billion for the 2006-2017 period. Additionally, funds from the “Quality Pact for Teaching” (of €2 billion until 2020) beside the “Higher Education Pacts” have been concentrating on creating additional places for students (more than €20 billion from 2007 to 2018). Furthermore, the federal states that introduced tuition fees did not reduce the baseline funding for higher education. Therefore, the non-legitimation of the tuition fee system by a concurrent drop in funding seems not to be proved by figures and also not participate in public discourse after the introduction of tuition fees.



Source: Federal Statistical Office of Germany, 2001-2011

Figure 1. Sources of income of German universities (excluding medical institutions) and universities of applied sciences from 2001 to 2011

On the other hand, since one of the arguments for tuition fee introduction – chronic underfunding – loses some of its relevance in the perspectives of the media and public, we might assume that improved overall financial situation led to a downward in legitimization of the tuition fee system. Due to increasing funding, the financial problem of higher education institutions was reduced and the proponents lost one of the key arguments in favor of tuition fees. Moreover, this perception was strengthened by the relatively small financial impact of tuition fees in comparison with funding programs that have been implemented from 2006. In fact, the contribution of tuition fees on overall income was only 4% to 5% in the years 2007 to 2012. It can be seen that the role of tuition fees for the overall funding of German higher education institutions is not significant.

The relatively insignificant effects of tuition fees on financial situations of universities led to the fact that tuition fees were no longer considered as an absolute necessity in the public eye. This is the key point in the abolition of tuition fees. This effect was reinforced after the abolition of tuition fees. The removed revenue has been partially replaced by the additional funding the State provides. Also, under the public debate, this abolition of tuition fees has hardly any significant effect on the financial sources of income of higher education institutions

4.1.4 Did tuition fees focus on improving the education quality and were any improvements made?

Most people believe that tuition fees should only be used for improving teaching and training quality. However, it is problematic to estimate the positive impacts of tuition fees on higher education quality. In 2012, under the request of parliament for the Green Party in 2012, the German government responded that “no data for changes in the quality of higher education were available which could solely be contributed to the introduction of tuition fees” (Deutscher Bundestag, 2012). The challenges in measuring positive effects of tuition fee introduction are also the outcome of simultaneous changes in the German degree course system (bachelor and master systems) and additional funding from Quality Pact for Teaching and Higher Education Pacts. It can be seen that the introduction of tuition fees, the changes in degree courses and increased funding for higher education institutions synchronically improve the teaching quality and cannot be separated. Therefore, even improved teaching quality has proved, the impacts from tuition fees alone cannot be clearly identified. Proponents might not legitimize the tuition fee system through positive effects of education quality. On the other hand, opponents may show the immeasurable effects from tuition fees and keep the debate going on.

Furthermore, in the public debate, the tenacious association between improving higher education teaching quality and tuition fees is gradually vanishing. Instead, the discussions on the increasing teaching quality are more likely under the context of new bachelor's and master's degree courses. It seems that the questions have no longer been whether tuition fees should be established or not; or whether it is crucial for teaching quality, but whether or how the new degree courses should be implemented.

Additionally, since the implementation of tuition fees, a certain number of media reports suggested a desecration of revenue from tuition fees by higher education institutions (i.e., *Spiegel Online*, 2011; *Telepolis*, 2010; *Der Tagesspiegel*, 2010). For example, there are cases that universities did not spend this source of income but saved it instead. Tuition fees were even partly used for construction projects; financing operating administration; or repaying loans that could not be proved to improve teaching quality. In fact, even if the majority of higher education institutions used the collected tuition fees to enhance education quality, the public suspicion on mistreatment would still remain.

In general, teaching quality improvement is difficult to be measured and that this fact is discussed in the mass media. Moreover, the media continuously reported misappropriation of fund usages. Consequently, it is doubtful whether improving education quality, the associated condition with the implementation of tuition fees, is being fulfilled. The legitimation of tuition fee is therefore sabotaged significantly.

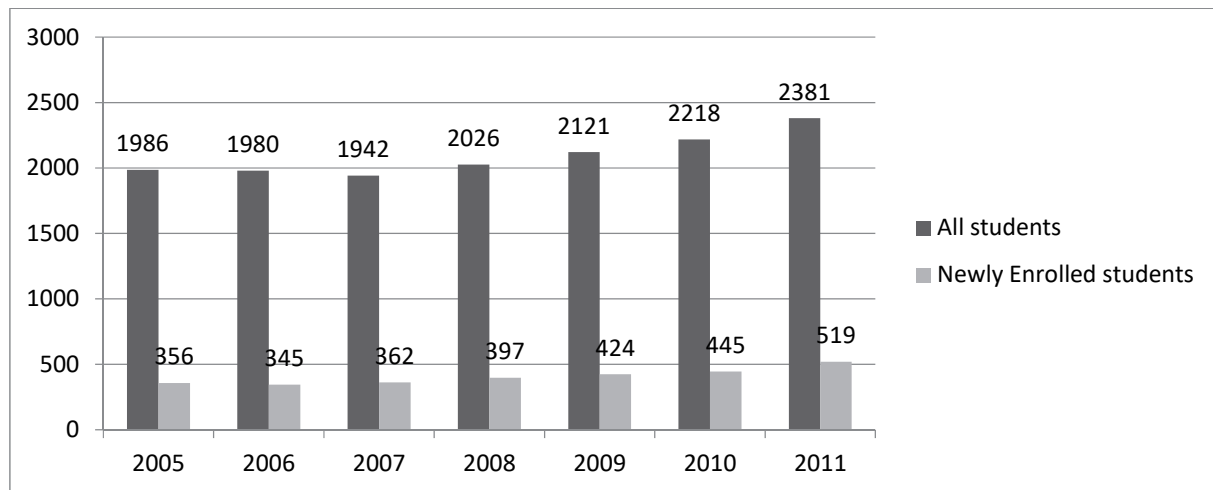
4.1.5 Have tuition fees escalated social selectivity?

So far, the paper has discussed two main arguments for the establishment of higher education tuition fees in Germany which are improving the financial situation and enhancing education quality. These two arguments have gradually lost their power since the mid-2000s. Meanwhile, the most critical counter-argument – escalating social selectivity – is getting more concerns from people.

In order to examine this argument, it is necessary to review the figures of students and those started attending a degree course in Germany since the introduction of tuition fees. In fact, the quantity of both old and new students has risen considerably in recent period as Figure 2 shown. Nevertheless, there were small declines in 2006 and 2007 in the number of students (both new and

old ones). These decreases coincided with the establishment of tuition fees though a continuous increase happened after that. Since this situation happened in federal states both with and without tuition fee introduction, it can be considered that tuition fees did not have a significant negative effect on the student enrollments and participation, at least since 2007. It should be noted that, since 2007, the number of students increased also due to the shortened duration of schooling from 13 years to 12 years. As a result, there were “double cohorts” of students starting a degree course in several federal states. However, even after considering this effect, the quantity of youngsters starting a degree as a percentage of their cohort rose from 36.8% to 50.9% between 2007 and 2011 (Federal Statistical Office of Germany, 2018).

Despite the relatively low influence on student number, the tuition fee system still raised a fierce debate about its impacts on social selectivity. One of the main topics in this debate is the models of tuition fees that were introduced. In all federal states that introduced tuition fees, the model was “up-front tuition fees” that required students to pay immediately. However, some elements of the “deferred tuition fee” system were also applied. Under this model, all students had the opportunity to take interest-charging loans which have to be repaid under several conditions after their graduation. Despite these deferred elements, the rising costs for courses were due and felt instantly.



Source: (Federal Statistical Office of Germany, 2012)

Figure 2. Quantity of students and newly enrolled students in Germany from 2005 to 2011 (in 000s)

In responding to superfluous student debts, the federal states had to limit the total amount of debt a single student would face. This debt included tuition fees and government loans for standard living expenses during the time of a degree course. The ceiling of the debt was indicated between €10,000 and €17,000 per year (Ebcinoglu, 2006). The purpose of this student loan is preventing low-income based students from being intimidated to participate in higher education due to the concern of high debts. However, the cost of a degree course escalated even for students who received the loans. Additionally, there were hardly any scholarships for financing tuition fees in Germany unlike other nations.

After the introduction of tuition fee, significant deficits occurred such as: there was no sufficient grant system, the charges were mostly up-front, or the students receiving state support had to pay tuition fees though some methods for avoiding social selectivity were applied. Based on these deficits, opponents could suggest that tuition fees increased social selectivity in Germany. By surveying youngsters qualified for higher education entrance, Heine et al. (2008) claimed that debates on the tuition fee system caused uncertainty which led to a decrease in the propensity to study in 2005 and 2006. This drop was particularly stronger amongst women and people from disadvantaged backgrounds. Quast et al (2012) also pointed out that tuition fees have the similar effects in the worldwide level in terms of uncertainty. However, in the case of Germany, this decreased propensity to study was not only happening in federal states with tuition fee establishments but also ones without it. In contrast, Baier and Helbig (2011) found no effects on the general propensity to study from tuition fee, even though these three empirical studies use the similar data set. These different results might come from methodological issues which were barely inclusive to the public. Therefore, it should be noticed that social selectivity impacts of tuition fees have remained controversial even within empirical studies. This also indicated that the central counter-argument against tuition fees retained its outstanding role in the public debate.

4.1.6 The legitimacy complication of tuition fees

In general, the legitimization of tuition fees presented some significant problems. Firstly, the central counter-argument about social selectivity could not be completely negated. Secondly, it is very challenged to measure the positive effects of tuition fees on teaching quality plus a suspicion on misappropriation on fund usages. Thirdly, German higher education system has significantly eased its financial problems since 2006.

It should be mentioned how the non-supported legitimization of tuition fee research was presented in the media. Tuition fee has remained a “hot” topic in the media even after its introduction in Germany. The peak media coverage from 2008 in Germany was reached two years after the legislation for the introduction of tuition fee was passed (Hüther & Krücken, 2014). In fact, the public debate necessitates a stable defense of tuition fees while the arguments from proponents are losing their relevance (not well-supported by empirical data). Meanwhile, students continuously organized boycotts and demonstrations against tuition fees. Until now, tuition fees and its legitimacy were constantly debated and challenged.

Another relevant factor affecting the legitimization of tuition fees in Germany is the significant shift in political climate since 2005. Whereas neo-liberalism dominated public discourse during 1995-2005 periods, the situation was gradually changing from 2005 and expeditiously after the global financial crisis from 2008. Aspects of state regulations and welfare were being critically emphasized while market solutions were being strongly viewed. Therefore, the proportion of people who enjoyed a social benefit cut was the most obvious with a drop from 23.2% in 2004 to 12.5% in 2010 (Terwey & Baltzer, 2012).

Nevertheless, the legitimization of a new political measure is usually questioned and this problem does not necessarily lead to its abolition. In fact, discussions on legitimization of tuition fees have not only happened in Germany but also in other nations. The legitimization problems should be considered as only a necessary but not a sufficient condition for the abolition of tuition fees. The German federal structure which is different for the national administration systems of other countries might also be a crucial aspect for the complication of the situation.

4.1.7 The influences of Federal System

Federal states in Germany are responsible for the national higher education. Federalism was shown in the fact that only seven states introduced tuition fees. This in itself prevented the institutionalization of tuition fees because they did not happen in all over German political system but only depended in each single federal state. Moreover, the legitimacy of tuition fees was also deteriorated because the partial implementation made it appear as unnecessary. On the other hand, this also might create competition amongst federal states. In which, if the training quality in states that introduced tuition fee improves (increase in ranking of institutions in the state, higher

employment rate after graduation, etc), students as customers can be willing to pay tuition fees for the added margin of quality.

At the federal state level, Germany is in a constant election campaign because elections in each federal state take place at different times. For example, from 2006 to 2012, there were 27 elections in German federal states with 17 different dates. As the questions on tuition fees are clear political fronts, they become a permanent issue in election campaigns. As a result, its controversy is renewed constantly. In other countries with centralized political systems, a consolidation phase is achievable between taking a critical decision and the next election. This is not the case in Germany where the debate about tuition fees and challenges for its legitimacy are permanent. Through this way, it can be seen that federalism has considerable influences on the institutionalization and legitimacy of tuition fees.

Furthermore, the federal structure in combination with the straightforward positioning between proponents and opponents also creates a relatively long period of uncertainty in higher education tuition fees. Therefore, it is possible for tuition fees to be introduced and abolished in accordance with political changes. A final decision on tuition fee might be never reached but constantly be taken anew and then legitimized again.

Although tuition fee systems have never been applied since 2006 because of changes in government at the federal state level, five abolition decisions were made after changes in government (Baden-Württemberg, Hamburg, Lower Saxony, North Rhine-Westphalia, Saarland). Except for the case of Saarland, a CDU-led (Christian Democratic Union) was voted out in each of the rest four federal states. The new government of SPD (Social Democratic Party) or associations of SPD and the Greens abolished tuition fees as one of their first official acts. The alacrity of the decision to terminate showed the allegorical importance of the subject in the political environment. Although the CDU kept their political position in Saarland tuition fees were also abolished after the election. Nevertheless, the coalition between the CDU and the FDP (Free Democratic Party) was replenished by the alliance of the CDU, the FDP and the Greens. The termination of tuition fee was then a compromise to the Greens.

Other scenarios in Hesse and Bavaria were that the tuition abolition is not guided by the formation of a new government. In 2008, Hesse witnessed severe losses of the CDU in the election but there was no clear majority, and it was not feasible to form a new government. However, the

combination votes of the SPD, the Greens, and the Left – all were against tuition fee policies – were adequate to conclude the termination of tuition fees in the parliament of the state. In the 2009 election, in order to eliminate the controversial tuition fee topic, the CDU even had to declare that they would not reintroduce tuition fees if they won the election. As Hesse was the first state that abolished tuition fees, it was clear that abolition was possible and led to an expanded transition of opponents. At that time, the CDU had to avoid this controversial topic as they were in danger of an election failure. In 2012, the scenario was similar in Bavaria where a vote against tuition fees was initiated. After the necessary referendum majority was reached, the opinion polls noted 72% of the Bavarian population protested the tuition fee system (Süddeutsche.de, 2013). At the same time, the CSU (Christian Social Union) – FDP government encountered a political defeat shortly before the 2013 election. As a reaction to the situation, tuition fees – one of the most arguable topics – were terminated before the election campaign. These historical situations suggest that although tuition fees did not necessarily decide the election results, it could be increasingly viewed by proponents as a sensitive election campaign problem. In fact, when the election results are expected to be close, the CDU and the CSU decided to respond by terminating their support for tuition fees.

The abolition of tuition fees in German federal states can be demonstrated by different situational factors and scenarios. However, the federal higher education system constantly put the controversial nature of the tuition fee issues in the foreground. Moreover, the frequent election campaigns create various chances to abolish tuition fees while tuition fees are increasingly considered as a risky campaign problem.

4.1.8 Conclusions and Discussions

This part of the paper has concerned the question of why there has been no national establishment of tuition fees in Germany in contrast to many other nations as well as why it was abolished after its introduction in some federal states. This could be considered as abnormality for a higher education system that has been subject to comprehensive New Public Management reforms and equally inclusive processes of marketization since the late 1990s.

There are three main distinctive, but related causes and their interactions are responsible for the puzzling situation. First, the tuition fee suffered low and limited legitimacy in media and political discourse because of a board-based welfare state tradition. Although the acceptance of

neo-liberal ideas in German society created certain opportunities for introduction of tuition fees, the window was closed due to the rise of financial and banking crisis. Second, this discourse has been researched by studies on social selectivity effects in German education system as a whole. The social selectivity issues that had been discussed by educational researchers transformed into border focus from politics and the public. Third, the influence from the federal system is particularly important. As the introduction of tuition fees is not able to be decreed by the central government, it must be performed by each one of 16 federal state governments based on case by case. Therefore, tuition fee subjects become a politically risky election issue.

The German situation suggests some key points, lessons and experience that might be learned and applied for other countries. Firstly, the association among politics, education and sciences, and mass media is the key decider for the introduction and abolition of tuition fees in Germany. The problem is how to grasp this association conceptually. On the one side, the internal logic and differences of the social systems should be understood more precisely. This means elaborate the specifics of scientific intelligence, attention of mass media and political decisions to conceptually capture the fault lines and necessary translations among these systems. On the other side, solid linkages between these particular systems are noticeable. In addition, it was education research (a social science) that could guide the public discourse and political debate on tuition fees. As tuition fees is a social issue which affects mostly every family in a nation, especially in the case of Vietnam where all parents tend to invest a significant proportion of wealth for their children's education. Meanwhile, the State budget of a developing country like Vietnam is not capable of fully funding higher education. In this current situation, the tuition fee system is unavoidable. Therefore, if the government wants to make any changes in the tuition fee system for higher education, they need to ingeniously combine the social sciences researches and the mass media as the one-party political system is currently applied. Moreover, beside the support from public policies, the government should invest more in research on tuition fee and its impacts in order to prove the judiciousness of the policy and also gain the support from society as well as mass media.

Secondly, and more focusing on the empirical level, it is necessary for every nation to review the connection between politics, science and education, and mass media along with the institutionalization and deinstitutionalization of tuition fees for higher education in other countries. The international perspective is particularly interesting from an empirical viewpoint because the

researchers, under international comparison, can observe the synchronicities between marketization developments. Therefore, marketization is not considered as a fully inclusive package but allows various strategies to adjust in according to the national contexts. Tuition fees, unlike other elements of marketization, are not becoming part of the German strategy. Even in one of the most developed higher education systems like German one, tuition fee is still strongly debated and constantly changed with many different advantages and disadvantages in each approach. Vietnam obviously is on the way to figure out the appropriate model for the national conditions. Therefore, learning from and researching other countries at an empirical level, especially ones with more advanced higher education systems, plus adapting to Vietnamese contexts is the shortest and the most economically efficient way to improve the domestic situation not only in tuition fee issues but also other macro-level problems.

Thirdly, the paper finds out that the future development of tuition fees for higher education in Germany is still questionable considering openness of society to future options. The tentative suggestions about some diverging tendencies in the coming years are possible. Under the financial restrictions arising from potential global financial downwards, the Euro crisis and the constitutional constraints of fiscal consolidation in which tuition fees are again introduced as viable, permanent, and potentially sustainable policy options. This is absolutely an available further research for social and economic scientists, including Vietnamese ones. By forecasting, observing, and analyzing this situation, more and more lessons and experience to improve the Vietnamese tuition fee system under strict financial conditions will be achieved.

Fourthly, the case study of German higher education system suggests that introduction or increase in tuition fees should be motivated by improvement in training quality in order to receive support from society and mass media. Therefore, it is necessary to make sure that the added financial source from tuition is spent on quality. Furthermore, the society needs visible positive impacts after introduction or increase in tuition fee so the level of tuition fees should be significant. Thanks to this significant source of finance, it is expected that higher education institutions can make remarkable changes.

Fifthly, additional policies along with tuition fee introduction or increase must be carefully considered. As the introduction and increase of tuition fees both provide the possibility of social inequality, students should have some options to reduce financial pressure on themselves. One of

the options can be deferred tuition fees that they can pay later during their future career. Another solution is implementation of a parallel system of grants, scholarships and loans for financially disadvantaged students and students who achieve high results in their study processes. In short, the case of Germany suggests some criteria of an appropriate set-up for the tuition fee system including fees must come along with enhancement in quality and financial assistance for students.

4.2 Tuition fees and higher education participation – A long journey to marketization and massification: The case of China

The tuition fee introduction has been one of the most symbolic reforms in Chinese higher education since the People's Republic of China foundation in 1949. Higher education tuition fees have been a major subject of discussions, particularly the measurement of a socially acceptable level of fees and their impacts on university participation. The Ministry of Education of China has determined fine-tuning of tuition fees and improving the student support system as two main objectives for long-term sustainable development of Chinese higher education (Ministry of Education, 2010). This section of the paper discusses the historical evolution of Chinese tuition fee policies, the rationales that encouraged the tuition fee introduction, the decision-making mechanism for measuring the fee levels, the tuition fee disparities within the higher education and tuition fee impacts on university participation in China.

4.2.1 Historical evolution of tuition fee policies in China

Chinese higher education tuition fees have gone through three main stages since 1949. These stages included free education (1949-1979), dual-track tuition fees (1980-1996) and one-policy up-front fees (1997-present).

Free education (1949-1979)

After the foundation of the People's Republic of China, the government has implemented a central planning policy in every segment of national industry. In order to maximize usage of limited resources for socialist construction projects, central and provincial Chinese governments have rigidly planned, controlled and distributed production in every industry. As a result, there was no exception for higher education. At that time, the country urgently needed higher education graduates as senior human resources for socialist construction projects and the government decided to control the recruitment and assignment of this labor force. Only a certain number of most talented students were able to attend in higher education and their tuition fees were waived while they also received an allowance to cover their living costs during study time. At this specific stage, the higher education tuition fee policies were mainly based on primarily political considerations of socialist construction (Zhang, 2002).

Dual-track tuition fees (1980-1996)

In 1978, the Chinese central government decided to change their management philosophy with the introduction of market-oriented reforms. This plan affected higher education as it did to other economic sectors. As the industry expansion required more and more talent, the state quota system for higher education was increasingly under pressure. Chinese higher education institutions tended to increase their enrollments by engaging employer-funded or self-funded potential students. In 1980, the National College Enrolment Meeting allowed higher education institutions which have satisfied the government's enrollment requirements to recruit fee-paying students (Bao, 2008). In 1984, the State Education Commission (SEC) – the predecessor of the Ministry of Education (MoE) approved the enrollments of students who were recommended and funded by employers (State Education Commission; State Planning Commission; Ministry of Finance of China, 1984).

Generally, self-funded and employer-funded students were recruited based on lower standards than the general admission requirements and they had to find their own employment after graduation (Huang, 2009). Although this change started the concerns regarding educational equality, it was certified in the Decision on Educational System Reform issued by the Central Committee of the Communist Party of China in 1985 (Bao, 2008). Under this decision, higher education students were separated into two tracks: publicly-funded students who enjoyed free education and job assignments after graduation; and self- and employer-funded students who had to manage their own employment after graduation. Table 5 below shows the changes of self- and employer-funded students in China as a percentage proportion of higher education enrollment from 1986 to 1995.

Table 3. Self- and employer-funded higher education students as a percentage of university enrolment from 1986 to 1995 in China (%)

Year	Self-funded students	Employer-funded students	Total Fee-paying students
1986	0.52	8.25	8.77
1987	1.72	8.48	10.30
1988	6.30	9.42	15.72
1989	4.32	9.49	13.81
1990	2.85	8.83	11.68
1991	1.93	9.21	11.14
1992	11.44	15.24	26.68
1993	14.50	24.49	38.99
1994	14.61	20.49	35.10
1995	13.16	18.96	34.12

Source: Wang, 2010

One –policy Up-front Fees (1997-present)

Since the late 1980s, as the dual-track tuition fee system was considered as an interim stage, the free-education track has gradually been abolished. In 1989, the Ministry of Finance, the State Price Control Bureau and the SEC stated that the free-education policy was no longer aligned with the national economic and social development. Consequently, universities had to start considering charging tuition fees (State Education Commission; State Price Control Bureau; Ministry of Finance of China, 1989). Two years later, from 1991 to 1992, many universities in China introduced tuition fees. This led to a significant increase in the proportion of fee-paying students. In 1993, several universities wiped out the dual-track policy and charged tuition fees on all newly enrolled students. One year later, 39 higher education institutions started charging all of their students. By 1995, the number quickly escalated to 246 (Bao, 2008). Furthermore, in 1996, the SEC, the Ministry of Finance and the State Price Control Bureau established *Provisional Regulation on College Tuition Fees* which stated that higher education was non-compulsory and higher education institutions could charge tuition fees as stated in the Regulation. The government also introduced the standards for tuition fee level as 25% of the average per capita annual educational cost in higher education (State Education Commission; State Planning Commission;

Ministry of Finance of China, 1996). Since 1997, all higher education institutions in China have charged tuition fees on their students.

4.2.2 Rationales

Most of the major Chinese higher education tuition fee policy documents did not discuss in detail the reasons for changes from free education to fee-charging system. However, the main course seems to be the market forces created by the economic reform and the opening of Chinese market in 1978 (Zhang, 2002). In order to explain these causes, we should go back to the rationales of free education policy before the 1980s.

Firstly, despite the background of state-planned management, the social benefits from higher education are far beyond the personal benefits. The Chinese government assigned their higher education graduates to positions in accordance with demands of socialist construction while the personal desires and ambitions of graduates were completely ignored (Zhang, 2002). Furthermore, the salaries were not different between higher education graduates and non-graduates because of the equal-sharing principle in the era of the planned economy. During that era, the personal benefits were insignificant in the framework of planned management. In which, talented individuals were educated and trained for the state and then paid by the socialist state.

Secondly, the mission of higher education as indicated by the government at that time supported the free education policy. The government described the mission as “increasing the access of children of peasants and workers and cultivating them to be intellectuals serving state construction”. Obviously, waving tuition fees is a critical method to expand higher education access for students from a lower social basis. During that period, regardless of social class, Chinese incomes only met basic living cost demands (Zhang, 2002). Consequently, it left limited resources for extras including higher education. This social situation contributed another sensible reason for implementation of free education.

However, these above rationales for free education became less reasonable amid the economic and social reforms in China that started in 1978. The introduction of tuition fees indicated the larger market-oriented reform in the higher education sector. This reformation plan had influenced all aspects of the society since the Chinese government abandoned the philosophy of central planning and moved to market mechanisms. Under this market-oriented transformation, the dual-track tuition fee policy broke the solid connection between higher education and state

demands by categorizing students into self-funded, employer-funded and state-funded. Attending in higher education was no longer in arrangement for socialist construction but a personal investment. The reform gave individual students more personal benefits and choices. Consequently, they were required to share a certain proportion of their education costs.

Moreover, the dual-track policy was chosen rather than increasing state budget quota due to the escalation in demand for higher education while the available public fund was limited. Supplied by dramatic national economic developments after 1978, Chinese higher education enrolment increased by 120% from 1980 to 1985 and led to a significant rise in cost of universities (Li W. S., 2008). Meanwhile, the gross domestic product (GDP) grew by only 98.4% and the government budget for education remained at 2.3% of GDP (Bao, 2008). Therefore, the funding from the central state was not able to cover the rapid increasing educational costs of the growing student population. Several studies highlighted this financial tension and suggested that it motivated the establishment of cost-recovery-oriented policy (D. R. Zeng; D. Zhang, 2007).

Additionally, Chinese households started to better afford higher education thanks to escalated income from the rapid economic development. In 1986, only 0.52% of higher education students paid tuition fees, but this proportion rose to 14.5% in 1993. This impressive increase evidenced that Chinese families were capable of affording larger amounts of financial resources for higher education. Furthermore, the proportion of Chinese family income spent on tuition fees also proved their enhanced capability of paying tuition fees. In the early 1980s, when the higher education institutions began to charge tuition fees, the government set the fee level from 100 to 300 Renminbi Yuan (Chinese Yuan-RMB) (Bao, 2008). The fee level then rose to approximately 600 RMB in 1993. Despite the constantly increasing tuition fee, higher education was still affordable if we look at the percentage of family income spent on tuition fees. As shown in Table 6, higher education tuition fees consume about 18% of income in rural areas and less than 10% in urban areas (Zhao & Song, 2008). However, the research of Zhao and Song did not mention the spent proportion of household income on other costs of students during their studies. As a result, the total cost for higher education or the financial burden on households could be higher than the research results.

Table 4. Comparison between tuition fees and household income in China 1993-1997 (RMB)

	1993	1994	1995	1996	1997
Average tuition fees	610	889	1,114	1,319	1,620
Average rural household income	3686.4	4,884.0	6,310.8	7,704.4	8,360.4
Average urban household income	7,732.2	10,488.6	12,849	14,516.7	15,480.9
Proportion of tuition fees over rural household income	16.5%	18.2%	17.7%	17.1%	19.4%
Proportion of tuition fees over urban household income	7.9%	8.5%	8.7%	9.1%	10.5%

Source: Zhao and Song (2008)

Note: The exchange rate of GBP (Sterling Pound) against RMB was 9.9638 on 16th December 2013

As we can see, the political considerations were dominant in the era of central planning in China then, after 1978, market forces tended to influence higher education reform. Tuition fee introduction might be a reasonable cost-sharing plan to deal with the financial burden from the expansion of student population in China. Meanwhile, enhanced household income created the necessary conditions to initiate the strategy. In addition, one-child policy in China also might be another reason behind the willingness of Chinese parents to invest in higher education for their children. As Chinese parents during that period were allowed to have only one child, their financial resource could be focused on this child. Combined with the culture of heavily investing in children's education of Asians, it might be easier for Chinese parents to spend more for higher education compared to other nations in the world.

4.2.3 An overview of the current tuition fee situation in China

Since 1997, when the tuition fees were applied at all Chinese universities, tuition level has gradually trended upward. There are no official statistical reports on the national average tuition fee level in China but some studies have reported the levels from 1998 to 2007 as shown in Table 7. In the 1998-2001 period, the education fee was doubled, reaching approximately 4000 RMB. After the release of the government's circular which limited the increase of tuition fee levels in order to deal with this drastic escalation, tuition fees only grew steadily at a significantly lower rate.

Table 5. Chinese national average educational fee levels from 1998 to 2007 (RMB)

Year	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
Fee level	1974	2769	3550	3895	4224	4419	4785	4968	5233	5986

Source: Zhu (2011)

In order to provide better understanding on the fee levels in China, the paper will discuss the decision-making mechanism, its criteria as well as the variation among regions and across the higher education sector.

Decision-making Mechanism

In China, the higher education tuition fee levels are determined cooperatively by the central government and provincial authorities. This mechanism has been formulated since 1989 when the central government published an official tuition fee policy document stating that accommodation and tuition fees should be estimated by provincial authorities based on local educational and economic situations (State Education Commission; State Price Control Bureau; Ministry of Finance of China, 1989). The mechanism was reaffirmed in the *Provisional Regulation on College Tuition Fees*. The document indicated that the central government is in charge of formulating the general management principles for determining tuition fee levels as well as a national threshold for provinces. Although the main source of funding for public higher education institutions comes from the central State budget, the provincial authorities then can determine their own specific tuition fee level based on local economic conditions, educational circumstances and resident's financial capabilities as well as add their own source of funding according to their financial capabilities. Although the higher education system in China has undergone several stages, the decision-making mechanism has remained unchanged.

Although the role of higher education institutions is not assigned in policy documents, they are practically crucial stakeholders in terms of setting tuition fee levels. Within 31 provinces in China, 23 of them provide universities some flexibility in determining their own tuition fees. In which, some Chinese key higher education institutions such as Peking University or Tsinghua University are allowed to raise their fee levels higher than provincial standards. Moreover, within individual institutions, some subjects which have higher training cost might have higher tuition

fees than others (Xu, 2007). For example, subjects which require laboratory training like chemistry or biology should have higher tuition fees than mathematics or literature. The universities in these 23 provinces take advantage of their right to determine fee level following the basic threshold set by the local authority. As a result, tuition fees in these provinces vary among different universities and within a single institution, the fee levels also vary among subjects.

Decision-making Criteria

There are two standards in the decision-making process for tuition fee levels along with the localized decision mechanism mentioned above. The core standard is the average per capita teaching cost while the subsidiary standard is the provincial affordability of higher education.

The core standard is the basis for the Chinese central government to determine the national tuition fee threshold. In general, the tuition level has been set at 25% of the average per capita higher education teaching cost. This standard was indicated in the policies from the dawning of tuition fee introduction, while the specific value of 25% was determined in 1996. However, the 25% standard refers to the average teaching cost in higher education as a whole, not the teaching cost of individual institutions (Wu; Zhong & Chen, 2011). In order to avoid unreasonable increases in tuition fees, the MoE has published data of the national average per capita operating cost as a reference for provincial authorities annually since 2001.

Beside the core national standard from the central government, provincial authorities can alter the local fee levels based on their local circumstances. This adaptability was granted in 1989 with the fee level ranging from 100 RMB to 300 RMB depending upon local economic and educational conditions (State Education Commission; State Price Control Bureau; Ministry of Finance of China, 1989). Since then, local governments in each province have set their higher education fee levels according to the published national criterion. This mechanism guarantees the localization of the unified national standard and lets the tuition fees be reasonable for each local circumstance.

Variations in higher education tuition fee levels

Provincial differences

Within the current decision-making mechanism, the higher education tuition fee levels diverge among provinces in China. Yuan and Cui (2010) compared the tuition fees for sciences and engineering courses and the fees as percentage of per capita family income between provinces. The data gathered in this study came from the university enrollment plan at Jiangxi Province in 2010 included 630 higher education institutions while the family income figures were taken from national statistics. This study suggested that the tuition fee levels were not positively correlated to the provincial economic development situation but there was a relationship between the higher education affordability of people and provincial per capita GDP. In fact, households from underdeveloped provinces have struggled in affording higher education.

However, when researching the disparities among regions rather than provinces, tuition fees show some reflections of the regional economic conditions. East China, which is the most developed region has the highest level of tuition fees followed by the Middle and the West China. In 2007, the average tuition fee in China in the eastern region was about 4000 to 5000 RMB, compared to 3000 to 4000 RMB in the middle region and 2500 to 3500 RMB in the western region.

Table 6. Tuition fee comparison by province in China in 2010

Province	Tuition fee in sciences and engineering	Tuition fees as a proportion of per capita urban family income in the province (%)	Tuition fees as a proportion of per capita rural family income in the province (%)
Chongqing	5371	34.1	119.9
Shanghai	5097	17.7	40.8
Guangdong	5056	23.4	73.2
Peking	5047	18.9	43.3
Hainan	5039	36.6	106.2
Hubei	5022	35.0	99.7
Sichuan	4817	34.8	108.0
Jiangxi	4816	34.3	94.9

Liaoning	4766	30.4	80.5
Hunan	4766	31.6	97.1
Shaanxi	4658	33.0	135.5
Yunnan	4609	32.0	136.8
Jiangsu	4553	22.2	56.9
Anhui	4495	31.9	99.8
Jilin	4405	31.4	83.7
Fujian	4396	22.5	65.8
Heilongjiang	4344	34.6	83.4
Gansu	4320	36.2	145.0
Zhejiang	4216	17.1	42.1
Shanxi	4129	29.5	97.3
Tianjin	4053	18.9	46.7
Guangxi	4028	26.1	101.2
Shandong	3889	21.8	63.6
Hebei	3851	26.2	74.8
Henan	3737	26.0	77.7
Xinjiang	3517	28.7	90.6
Inner	3516	22.2	71.2
Mongolia	N/a	N/a	N/a
Guizhou	3473	27.0	115.5
Qinghai	3238	25.5	96.8
Ningxia	2935	20.9	72.5

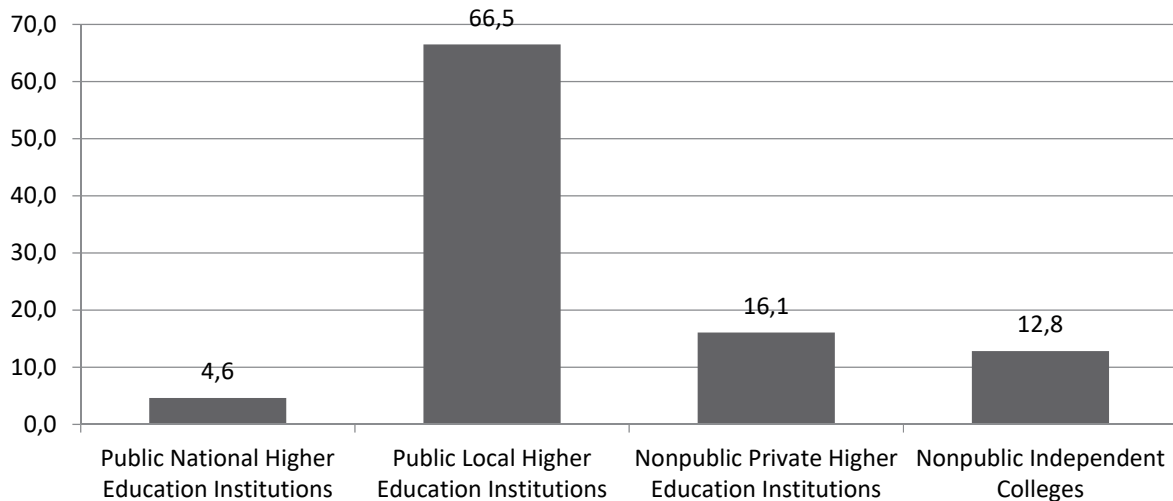
Source: Yuan and Cui (2010)

Types of higher education institutions

Chinese undergraduate education can be divided into two categories including regular higher education institutions and higher education for adults. The regular higher education institutions provide courses for students who pass the National College Entrance Examination. On the other hand, the other higher education institutions, for adults, serve students who have left high school but still pursue undergraduate education. In fact, the regular type usually attracts the

overwhelmingly major proportion of Chinese students, for example, the percentage was 87.2% in 2010. Therefore, the paper will focus on this type of institution.

Figure 3. Composition of higher education institutions in China by type in 2012 (%)



Source: National Bureau Statistics of China (2012)

The regular universities and colleges in China can be classified into the public sector and non-public sector. The main characteristic to distinguish them is their funding resources. While the public institutions receive funding from the local or central governments, the non-public institutions do not. In addition, the public sector can be further divided into national institutions which are administered by the MoE or other central ministries, and local institutions which are administered by municipal or provincial authorities. Meanwhile, the non-public sector includes private institutions which are owned and managed by a private entity, and independent colleges which operate on funding from private investors but connected to a public university. The shares of each type as well as their number of institutions are shown in Table 9.

The paper will demonstrate the disparity in tuition fees of each higher education institution type by noting and examining the tuition levels separately in three differently developed provinces of China for each type of institutions as Figure 3. It should be noted that China also divided their higher education into two main tracks including *Benke* and *Zhuanke*. In which, *Benke* education leads to bachelor degrees and normally follows the academic track and *Zhuanke* education follows vocational track which leads to undergraduate diplomas rather than degrees.

Table 7. Annual tuition fee levels at four types of higher education institutions in Shanghai, Anhui and Shaanxi (RMB) in 2013

Higher education Institutions	Province	Benke (Academic track)	Zhuanke (Vocational Track)
Public Sector			
<i>National institutions</i>			
Shanghai Jiao Tong University	Shanghai	5,000	N/a
University of Science and Technology of China	Anhui	4,800	N/a
Xi'an JiaoTong University	Shaanxi	4,950	N/a
<i>Local (Provincial) Institutions</i>			
Shanghai University	Shanghai	5,000	7,500
Hefei University	Anhui	3,900	N/a
Xi'an University	Shaanxi	4,500	5,500
Non-public sector			
<i>Private institutions</i>			
Sanda University	Shanghai	14,000	N/a
Anhui Xinhua University	Anhui	11,000	7,000
Xi'an Eurasia University	Shaanxi	12,000	8,000
<i>Independent Colleges</i>			
Shanghai Normal University Tianhua College	Shanghai	17,000	N/a
Anhui University Jianghuai College	Anhui	11,000	N/a
Xi'an Jiao Tong University City College	Shaanxi	12,000	N/a

Source: Yu and Jin (2014)

Notes: Given the variations among disciplines, the figures used above refers to tuition fees in general natural sciences and engineering subjects while excluding the most popular subjects in this

disciplinary area. Shanghai is the most economically developed province compared to Anhui and Shaanxi respectively.

In general, the differences between the public and non-public sector are significant. Moreover, the variations within a single sector among types of institution were marginal. Annual tuition fee levels for *Benke* (Academic track) education in non-public sector were set from 11,000 RMB to 17,000 RMB that doubled and even tripled the equivalent fees in public institutions. Meanwhile, both sectors have similar tuition fee levels with approximately 7000 RMB under *Zhuanke* (Vocational track) education. While the tuition fees contributed about 80% total income for non-public higher education institutions, the government funding is the main financial source for public ones (Chu, 2007).

Concerning the differences within the public sector, the national higher education institutions which involve mostly all of the leading universities in every province in China, charge tuition fees slightly higher than other local public institutions. However, the comparable variation does not exist among types of non-public institutions. Moreover, only the non-public higher education institution sector exposes regional disparities. For example, the independent colleges as well as private institutions in Shanghai have significantly higher tuition fee levels than same-type institutions in other underdeveloped provinces. Meanwhile, the variation in fee levels of public institutions among provinces are more concealed.

Disparities between subjects

Regardless of the types of institutions, tuition fees categorized by subjects still show a distinctive pattern as Table 8.

Table 8. Disparities in annual tuition fees of different subject in Chinese higher education institutions (RMB)

Institutions	General subjects	Popular subjects	Arts and Designing	International Programs
<i>Public higher education institutions</i>				
Shanghai Jiao Tong University	5,000	6,500	10,000	45,000-50,000
Renmin University of China	5,000	6,000	10,000	60,000
Hefei University	3,900	4,290	7,000	10,000
Liaoning University	4,600	5,200	10,000	23,000
<i>Non-public higher education institutions</i>				
Sanda University	14,000	N/a	16,000	20,000
Xi'an Eurasia University	10,000	12,000	15,000	N/a
Southeast University Chengxian College	14,000	15,000	16,500	N/a
Xi'an Jiao Tong University City College	10,000	12,000	15,000	N/a

Source: Yu and Jin (2014)

In general, popular subjects including information sciences, business management, foreign languages, or medical sciences usually have higher tuition fee level than other subjects (20%). These popular subjects represent the academic strengths of the institutions or might lead to high-income employment after graduation. Meanwhile, the arts and other related subjects charge the relatively highest tuition fees at every kind of institution. Last but not least, the international programs which have been strongly developed in recent years have outstanding levels of tuition fees compared to other domestic programs.

Student Support

Since the introduction of tuition fees, the Chinese government has been highly concerned about the important role of student support in their higher education system. The government as well as higher education institutions need to provide appropriate financial support to students who have economic difficulties to ensure their opportunities to access higher education. Student supports in China include student loans, scholarships, student ships, work-study programs and subsidies as shown in Table VII. The national scholarships and studentships are financed by the Chinese central government while institutional ones are responsibility of institutions, either from their own budgets or donations. In 2011, the student support from both government and social investment funds reached 50.06 billion RMB with 41.7 million students involved.

Table 9. Types of student supports for higher education in China (RMB)

Types of student support	Amount	Capacity (number of students)	Criteria
<i>National Level</i>			
National Scholarship	8,000	50,000	Merit-based
National Aspiration Scholarship	5,000	510,000	Merit-based plus need-based
National Studentship	1,000-3,000	3,400,000	Need-based; can be combined with above two scholarships
National Student Loan	6,000 (maximum)	20% of the enrolment number (maximum)	Need-based; students from vocational track education (<i>Zhuanke</i>) and independent colleges are ineligible
<i>Local Level</i>			
Local Student Loan	6,000 (maximum)	Province-based	Need-based; being local residents is required
<i>Institutional Level</i>			
Scholarships	Institution-based	Institution-based	Merit-based
Studentships	Institution-based	Institution-based	Need-based
Work-Study Programs	Institution-based	Institution-based	Need-based
Subsidies	Institution-based	Institution-based	Tuition waiver and stipend subsidies for economically deprived students

Source: Ministry of Finance, Ministry of Education & China National Centre for Student Assistance Administration of China (2012)

4.2.4 Influences of tuition fees on higher education participation in China

The introduction of tuition fees in Chinese higher education boosted the sources of income for institutions as well as opportunities for participation. As noted, the increase in government funding for higher education lagged behind the development of itself with only about 20% of the national education budget distributed to higher education (Wang T. X., 2010). Because of the limitation in government funding, tuition fees are crucial supports for the expansion of Chinese higher education institutions. Table VIII shows that tuition fee has been gradually taking a larger contribution to total income of Chinese universities since its introduction.

Table 10. Contribution of funding sources for Chinese higher education from 1978 to 2007 (%)

	1978	1990	1992	1995	1997	2003	2007
Government Funding	95.9	87.7	81.8	73.57	67.62	64.24	55.19
Tuition Fees	0.0	1.8	4.6	11.89	15.72	27.92	29.63
Services	4.1	10.3	12.8	8.30	8.73	1.15	7.66
Donations	0.0	0.2	0.8	6.24	7.93	6.69	7.52

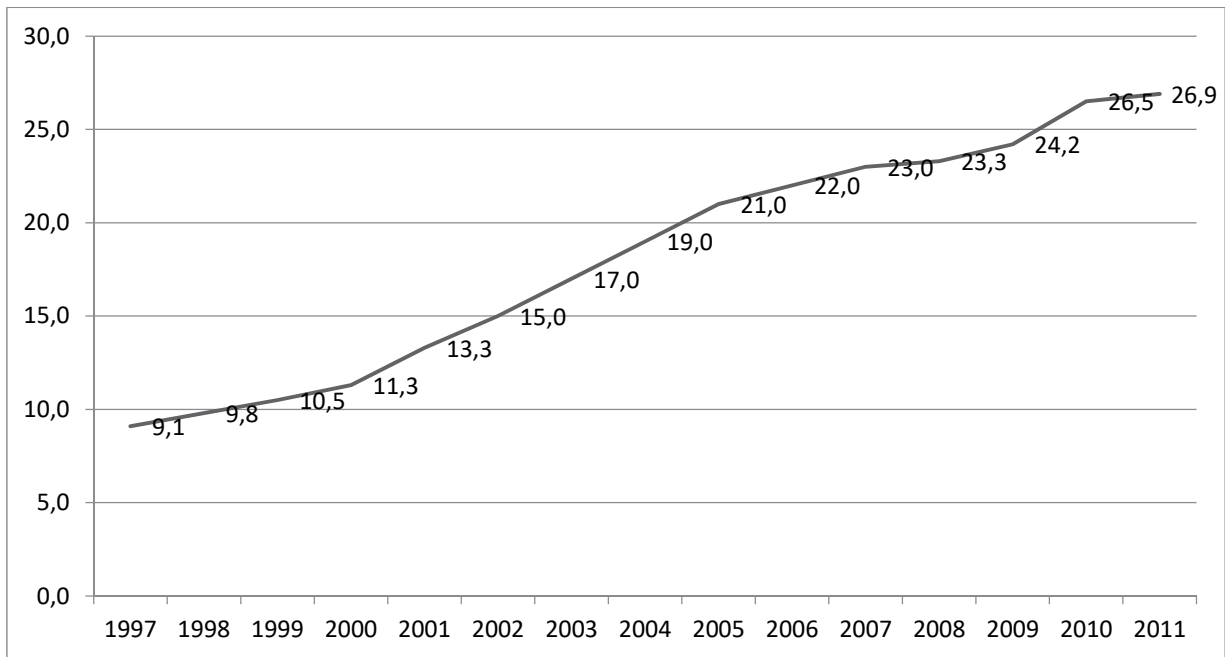
Source: Wang (2010)

Moreover, the introduction of tuition fees motivated the competition within the higher education sector as well as the institutional responsibility in enhancing their own management efficiency. Through this way, Chinese higher education institutions have to strengthen their educational quality while appropriately managing their financial situation to maximize their competitiveness in the higher education market (Tan & Zhang, 2005). Moreover, tuition fees also encouraged the connection between society and higher education institutions. During the era of planned economy, higher education institutions had to restrict themselves based on the benefits of the state. However, tuition fees triggered the institutions to target the needs of students – their customers, which, in turn, promoted the development of higher education.

Regarding the relationship between higher education participation and tuition fees, it should be noted that the relative correlation did not happen in China. The increasing tuition fees occurred alongside a rapid escalation in enrollment numbers. Since 1997, when the tuition fees were introduced, average tuition fees have risen from 1974 RMB to 5233 RMB in 2006, recording a 165% increase in a decade. Therefore, the rise of tuition fees seems to have an insignificant

negative impact on the enrollment. From 1997 to 2006, the Chinese higher education enrollment rate increased from 9.1% to 22%. The situation can be explained by the escalated demand for higher education.

Figure 4. Gross higher education enrollment rate in China from 1997 to 2011 (%)



Source: Ministry of Education of China (1997-2011)

However, the rising participation rate did not reflect the equal educational distribution across the social layers. After the drastic escalation in the late 1990s, higher education tuition fees have surpassed the financial capabilities of students from disadvantaged social classes. Wu and Fan (2007) researched tuitions as a percentage of per capita disposable income and suggested that the fees in China were relatively much higher than in other nations. Table 13 shows that higher education tuition fees, as a percentage of per capita family income has grown since the establishment of one-policy tuition fees, peaking at 56.78% for urban families and 170.63% for rural families in 2002.

Table 11. Higher education tuition fees and its relationship with GDP and Family income per Capita in China from 1997 to 2006

Year	Tuition fees (RMB)	GDP per Capita (RMB)	Tuition fees as Proportion of GDP per Capita (%)	Tuition fees as Proportion of Urban Family Income (%)	Tuition fees as Proportion of Rural Family Income (%)
1997	1589	6420	24.75	30.79	76.03
1998	1974	6796	29.05	36.39	91.30
1999	2769	7159	38.68	47.30	125.28
2000	3550	7858	45.18	56.53	157.54
2001	3895	8622	45.18	56.78	164.60
2002	4224	9398	44.95	54.84	170.63
2003	4419	10542	41.92	52.16	168.52
2004	4785	12336	38.79	50.79	162.95
2005	4968	14103	35.23	47.35	152.63
2006	5233	15973	32.76	44.50	145.89

Source: Wang (2010)

Liu and Zhang (2004) researched the perceptions of tuition fees in higher education among Chinese people based on 1997-2001 data from the China Statistics Yearbook. They reported that the dramatic increase in tuition fees in 2000 made 60% of urban citizens and 80% of rural citizens could not afford higher education. In 2007, they made another investigation among residents of 30 Chinese provinces and found that 40% of urban citizens and 80% of rural ones still could not manage to pay for higher education. It seems that tuition fees became hardly affordable for disadvantaged social layers in 2000, leading to financial difficulties for many low-income students.

Additionally, other researches pointed out that current student support in China also has limited results at meeting financial needs of students. The national student loan programs were considered as the most important financial source for disadvantaged students, but it has not had the expected achievements (Kuang, 2009). For example, in 2004, low-income students were 20% of the student population and they required about 16 billion RMB in loans annually; however, only 6.5 billion RMB in loans was released by the government. Wan (2006) also reported the shortage

that 36.9% of students from financial deprived families with less than 2000 RMB of per capita annual income were not able to receive any student loans. Even for students who did receive the loans, student loans were still insufficient to cover both tuition fees and standard living expenses during academic years. For instance, according to a national survey, the average annual expense for a higher education student in 2005 was 12,153 RMB while the maximum student loan was 6000 RMB annually. Obviously, the rising tuition fees plus the insufficient student support hinder higher education access for students from lower social classes.

Moreover, the enrollment behaviors also demonstrated social inequality in higher education access. Students from advantaged social classes are more likely to attend prestigious universities while low-income students tend to enroll in lower tier institutions. Based on 14,500 questionnaires distributed in a nation-scale study, Wang (2011) reported the intergenerational transition rate, the proportion of students from social classes compared to the distribution of social classes in the national population, of each social class in different types of higher education institutions.

The exclusion of disadvantaged students from private education is largely attributed by high educational costs. As mentioned above, 5000 RMB tuition fees might make higher education unaffordable for 40% of urban and 80% of rural families (He, 2007). Therefore, over 10,000 RMB tuition fees of private Benke institutions would be impossible for disadvantaged families. This disparity in tuition fee levels among different types of higher education institutions pushed disadvantaged students to public sector and lower-tier private vocational institutions.

The unequal participation of students from diverse social backgrounds in higher education is problematic. Advantaged students dominate prestigious institutions while disadvantaged enter other public universities. However, the prestigious universities usually provide more scholarships than the lower-tier institutions due to their higher social donations. Li (2008) demonstrated that students attending major universities – key universities selected by the government to build world-class universities – receive more subsidies on tuition fees. Given the representation of social backgrounds in higher education participation, this trend means that financially advantaged students pay less for potentially better education at prestigious universities with higher financial support. Meanwhile, poor students pay higher fees at lower-tier institutions and receive less financial support.

Furthermore, the social stratification also exists within institutions. Wang (2011) found that privileged students were over-represented in popular subjects while underprivileged students tend to participate in majors that have lower potential labor market returns. This discrepancy is the result of variation in costs across disciplines. As tuition fees for popular subjects are relatively higher than others, price-sensitive students are potentially discouraged to take them. Meanwhile, popular majors lead to more promising – high salaries – employment. Therefore, the unbalanced distribution of social backgrounds among different majors will lead to unequal labor market returns. In this case, educational inequality leads to social inequality.

4.2.5 Conclusions and Discussions

Generally, two standards have been applied in the implementation and evolution of tuition fee policies in China: the market and equal access to higher education across the nation and social hierarchy.

The market standard has been manifested in the evolution of Chinese tuition fee policies. Since the system of self- and employer-funded students was established in the 1980s, higher education in China has focused on meeting and accommodating the demands of students, its customers. Although the government-controlled mechanism is still determining the tuition fee levels, market demand has been more and more reflected in the pricing process. The market-orientation is generating more efficiency and income for Chinese higher education but the current decision-making mechanism still limits its impacts. In addition, the largest problem of the system is the tuition fee levels do not reflect the educational quality. In fact, the non-public institutions are charging significantly higher prices because of their financial structures while their educational quality is not in line with their price. This constantly weakens the position of non-public institutions in Chinese higher education market. At the same time, prestigious major universities with premier education services are charging similar prices to other public institutions though the government allowed them a higher fee level. In general, the Chinese government retains significant influences to determine higher education tuition fees in spite of the introduction of market mechanisms.

One of the main reasons for the Chinese government to insist on applying a central-planning decision mechanism for determining tuition fees is to protect disadvantaged students. The localization (provincial level) of tuition fees ensures that the diverse educational and economic

situations can be taken into account and provide more educational opportunities for students in underdeveloped provinces with fewer financial burden. On the other hand, student support in the form of scholarships, studentships and loans are still insufficient to cover higher education costs, especially for students from deprived rural areas. Therefore, it is necessary for policy-makers higher education institutions to devote more attention to enhance the student support system. Business and other societal groups also should be encouraged to become more involved in supporting students.

The investigations on Chinese tuition fee system for higher education hindered some lessons and experience for Vietnam. It should be noted that Vietnam and China have many similarities in social, economic, political and educational development. First of all, at the moment, the main tuition fee funding resource of Vietnamese students besides government funding is individual student's self-funding. The Chinese case suggests that encouraging employer-funded tuition fees might be a good solution for both limited financial resources and after-graduate employment problems of students. Through this way, the win-win situation would be:

- Vietnamese students have financial supports for their higher education
- Vietnamese and international (operated in Vietnam) companies can enhance and ensure their future human resource
- Vietnamese government can reduce their financial burden on educational funding

Secondly, the historical events in China after the introduction of tuition fees in higher education also proved that the rising of tuition fee levels, in certain cases, even increases the enrollment in higher education. The current social and economic conditions of Vietnam at the moment are comparable with the Chinese ones 20 years ago. Whereas the national economy was going on an explosive development and the demand for higher education was increasing far beyond the available capacities of intuitions. At this moment, increasing tuition fee levels might provide a significant source of income for Vietnamese higher education institutions. This resource can create more student capacity as well as provide the financial foundation for enhancing educational quality. As a result, it should be expected that tuition fee increases can positively influence the Vietnamese higher education as it did in China.

Thirdly, the decision-making mechanism in China where the provincial governments and higher education institutions are authorized to have more decisive power in tuition fee issues also could be referred to Vietnamese situation. In fact, Vietnam's territory is not as large as China and Vietnamese universities are not spread across the nation (mainly located in three biggest cities including Hanoi, Ho Chi Minh City and Da Nang City). It is easier for the central government to manage the system without deeply involving provincial governments. However, the opinions from each individual institution should be more considered, especially in terms of tuition fees. Each university in Vietnam needs to have power to decide their tuition fee levels under the guidance of the central government in order to increase the competitiveness in the education market.

Last but not least, the student's support and equality in higher education should be seriously concerned. As the government funding of Vietnam is heavily burdened by the development in other industries, it seems impossible to expect a huge financial support for students from the State budget. Therefore, other sources have to be encouraged (such as investments from domestic companies or funding from international organizations and corporations). Meanwhile, diversifying the types of student support to further match the student's demands is also necessary.

4.3 Implications of tuition fee policies on quality, enrollments, and equality in the United Kingdom

Funding of higher education and student financial support have been subject to reforms and constant changes in countries across the world. Some nations are loyal to the higher education system provided free while others opt to use tuition fees as one of the solutions to their funding pressures. The case study in this section examines the effects of implementing tuition fee on higher education quality and enrolments, in addition to the issue of equality in the United Kingdom, especially England. As a matter of fact, over just two decades, the system of higher education of England has transitioned from a free-of-charge system into one that is well-known for tuition fees among the highest in the world. Such policy changes as raising tuition fees and boosting available financial support in the UK has created noticeable outcomes such as higher funding per individual, enhanced enrolments, and narrower gap of participation between financially advantaged and disadvantaged students. This section is divided into three main parts, outlining historical reforms of England's higher education and the debates around them, evaluating the implications of the policy changes, and discussing a number of lessons learned based on a case study in Vietnam.

4.3.1 Historical review of English system of higher education

The era of free higher education

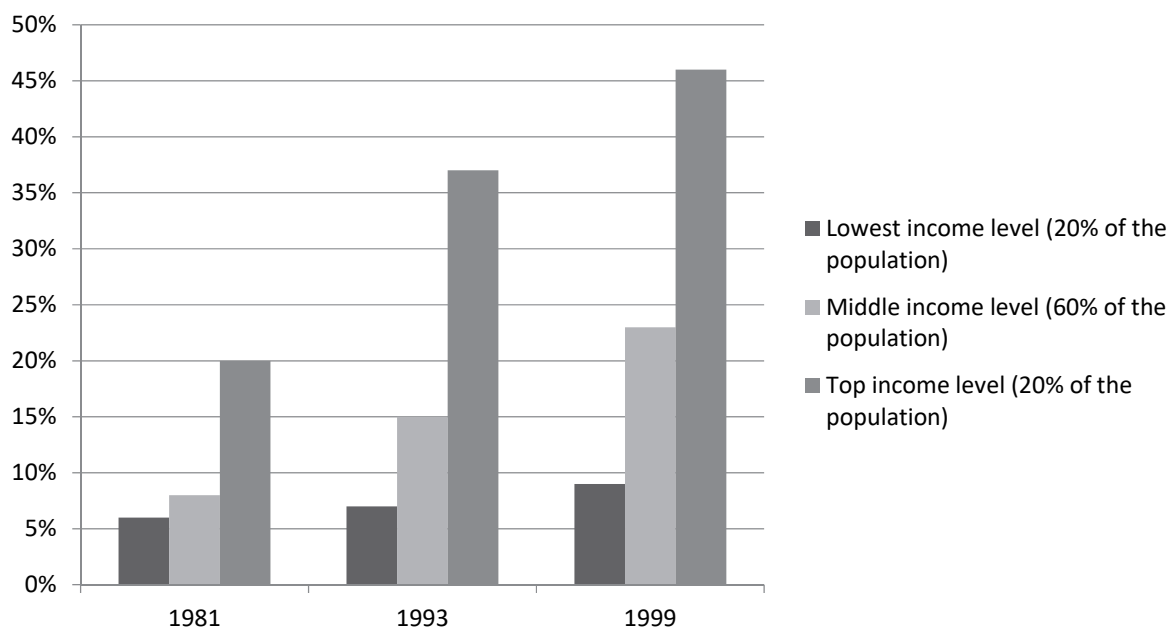
The higher education system in the UK consists of undergraduate degrees – Bachelor of Art (BA) and Bachelor of Science (BSc) and postgraduate degrees provided by universities as well as “further education” colleges, who, in fact, predominantly offer short vocational and professional credentials. Before 1998, despite the existence of some private higher education institutions, most of the institutions were funded by local education agencies and the State (Murphy, Scott-Clayton, & Wyness, 2017). This, therefore, enabled students enrolled in these public institutions to enjoy higher education at zero charge.

It is remarkable that even during the time of free higher education, the rate of student enrolments varied vastly across different periods. Indeed, over the course of 25 years from 1961 to 1986, the number of enrolled students experienced a modest growth of only 387,000. On the other hand, the next 10-year period (1987-1997) witnessed a sore in the number of enrolment by 124%, equivalent to 770,000 students. This dramatic rise created a substantial financial pressure on the higher education funding system of England (Murphy, Scott-Clayton, & Wyness, 2017).

The significant escalation in the number of students in the above-mentioned period can be attributed to the following reasons, Blanden and Machin (2004) argued that the rate of economic growth in the late 1980s and 1990s revealed a lack of skilled labor force in England, which subsequently gave rise to the escalation in demand for higher education in the UK in an attempt to fill the skills gap. Furthermore, government intervention proved effective in motivating institutions to expand their operation, contributing to the higher enrolment as a result. This vast expansion, however, put an enormous strain on the government budget.

The dramatic increase in both the demand for higher education and their supply meant that the free higher education system in England could not help suffering heightened financial pressures. As a result, the government funding failed to keep up with the growth of enrolment, causing a 39% fall in institutional resources for each full-time equivalent student for the ten years following 1986 (25% in real terms). In an attempt to solve this, the English government introduced ceilings on the number of students that each higher education institution might enroll for state's financial support in 1994. Despite these efforts, per-student financial resources experienced a further decline throughout the 1990s. By 1998, the level of funding per student in England had dipped to a record low £7,054, which constituted 50% of that in 1973 (Murphy, Scott-Clayton, & Wyness, 2017).

Apart from the burden from financial resources, the system failed to attain the goal of social equality long desired in higher education enrollment. Despite the free higher education and growing number of enrolments during this period, the expansion could not provide youngsters with equality in terms of benefits (Murphy, Scott-Clayton, & Wyness, 2017). Exploring the gap in higher education participation between rich and poor families (based on their annual income) over the same period in England, Blanden and Machin (2013) came to a conclusion that students from rich families disproportionately benefited. In fact, among 23-year-old students, there existed a drastically heightening gap in degree attainment between families of high income and those of low-income from just under 14 percentage points in 1981 to a 37 percentage points in 1999. Moreover, these studies highlighted a close link between family income and degree attainment in the later years of the period of higher education expansion in England, indicating a degree of intergenerational mobility.



Source: Blanden & Machin (2013)

Figure 5. BA/BSc participation rate at the age of 23 in England, categorized by family income level

It is inadequate to infer that this escalation in inequality over the period was originated by the reduction in funding per student. Chowdry et al (2013) discussed that students with financially advantaged backgrounds usually have higher possibilities of qualifying for a place at universities than poor students. Therefore, the subsidy for higher education tuition fees was attributed to these “rich” students. In addition, the financial crisis in the higher education sector created a burden on financing financial support for students. As a result, the annual maintenance grants for the most underprivileged students gradually fell from around £4,000 in 1991 to just over £1,000 by 1997. Dearden et al (2014) stated that maintenance grants should optimistically impact higher education enrolment, which implied that the minimization in support for disadvantaged students seemed to exacerbate inequality. Hence, this proved that the lack of available financial resources during the free college system caused poorest students to suffer the most.

Three critical reforms

In at least one regard, the fear of critics was correct: the reform in 1998 led to a fundamental transformation in English higher education financing and that a multitude of consecutive reforms in tuition and financial aid policies created a fresh landscape for students to navigate. As the paper

shall discuss, despite a number of adjustments to the system, the most extensive changes took place in three major sets of reforms.

1998 Reforms: The introduction of higher education tuition fees was first stated in the “Teaching and Higher Education Act 1998”. Up to £1,000 of fee annually were to be paid up-front by students but subject to means test to ensure financially disadvantaged students to enjoy zero tuition fees. According to The Act 1998, a means-test payment method allowed students from families with an annual income below £23,000 to be exempted and those whose family income lied in the £23,000-£35,000 range annually to pay a percentage of the fees on a sliding scale while those from families with annual earnings exceeding £35,000 were charged the full fees of £1,000. Besides, the fees took into account inflation and reached £1,225 in the 2007-2008 academic year (Bolton, 2010). Since the period 1999-2000, the government replaced the old “mortgage style” maintenance loans with a novel income-contingent loan (ICL) system. Thanks to this system, students were able to substantially approach larger financial resources for living costs during their time at higher education. All loans would be subsidized by the government and administered by the Student Loans Company, who was in charge of student loans administration across the UK. The government also stated in “Higher education in the 21st Century” that “the cost of fees will be balanced by increased loans for maintenance, also related to parental income while the overall effect will be that the total contribution required from the parents will be no greater than it is now” (Bolton, 2010).

2006 reforms: In 2006, tuition fees in English higher education institutions increased to £3,000 per year in accordance with the Higher Education Act 2004. Although it was no longer required that tuition fees must be paid in advance, they were applied to all students. Meanwhile, the ICL system was expanded, and the annual mean-tested maintenance grants were escalated to £2,700. The abolition of the up-front payment requirement and the availability of maintenance grants or loans eliminated the demand of students for other sources of finance. Moreover, the income contingent aspect of the loans implied that the state was carrying the default risk and that high ability and risk averse students would not be put off (Murphy, Scott-Clayton, & Wyness, 2017).

2012 reforms: The year 2012 witnessed another surge in tuition fees of £9,000 annually. Meanwhile, the loans remained dependent on income, yet the repayment threshold grew to an

annual level of £21,000, in addition to the application of a real interest rate of between 0% (to those with annual income below £21,000) and 3% (to those with annual income exceeding £40,000) (Murphy, Scott-Clayton, & Wyness, 2017). Moreover, another noteworthy element of the 2012 reforms was a dramatic reduction in government funding (or “teaching grants”), in which, lecture-based subjects such as social sciences or humanities ceased to receive any government subsidies. In line with this, the English government started loosening their quota over student numbers. The details of major adjustments in the 1998 and subsequent reforms are summarized in Table 13 below.

Table 12. Key aspects of higher education finance in England over time

Period	Adjustments and reforms in English higher education policies
Before 1998	<ul style="list-style-type: none"> ● No tuition fees were charged to full-time domestic students. ● A maximum of £2,000 of annual means-tested “maintenance” grants was issued to cover student’s living costs. ● Zero real interest rate maintenance loans of £2,000 at maximum were to be repaid in 60 monthly installments.
1998-1999	<ul style="list-style-type: none"> ● Tuition fee was to be paid in advance and subject to means test was introduced, £1,000 at maximum each year. ● Loans were applied to all income levels (larger amount for low-income) and an income-contingent repayment system substituted for the mortgage-style repayment system.
1999-2000	<ul style="list-style-type: none"> ● Mean-tested maintenance grants was eliminated
2004-2005	<ul style="list-style-type: none"> ● A maximum of £1,000 means-tested maintenance grants was reintroduced
2006-2007	<ul style="list-style-type: none"> ● Tuition fee level reached £3,000 and means-testing was eliminated. Fees were no longer charged up front, but all students were to repay post-graduation via income contingent loan system. ● Means-tested maintenance grants leveled up to £2,700. ● Higher education institutions were required to use 10% of fee revenue at minimum for additional grants (bursaries) to assist poor students.

2008-2010	<ul style="list-style-type: none"> ● Maintenance grants and loans were expanded to middle- and higher-income students. ● Means-tested maintenance grants increased up to £2,900
2011-2012	<ul style="list-style-type: none"> ● Means-tested maintenance grants grew to £3,250
2012-2013	<ul style="list-style-type: none"> ● Tuition fee cap was increased to £9,000, with maximum in subsequent years to increase with inflation. ● A maximum allowable number of student numbers (enrolment caps) was phased out with complete elimination by 2015-16. ● Threshold of loan repayment was marked up to £21,000 per year, indexed to wages. ● Interest rate on income contingent loans was at maximum of Retail Price Index (RPI) plus 3% for graduates with annual income exceeding £41,000 (and tapered to RPI for those with annual income of £21,000); payments would cease when the balance was paid, or after 30 years, whichever came first.
2016-2017	<ul style="list-style-type: none"> ● Maintenance grants of up to £3,387 provided to students with family income of up to £25,000 were to be replaced with commensurate amount in maintenance loans. ● 2017, tuition fee cap was increased to £9,250 per year.

Source: Murphy et al (2017)

Developments of tuition fee policies in other countries of the United Kingdom after their devolution

Scotland

After the Scotland Act 1998, a devolved government was formed in Scotland with the first meeting of the new Scottish Parliament taking place in 1999. This parliament possessed dominant legislative powers, which implied that elected representatives might pass their own laws (BBC News, 1999). Moreover, it is responsible for student fees, school standards or training and supply of teachers, etc.

Higher education funding became a problem following the Scottish devolution after the Labour Party and Liberal Democrats established a coalition government in Scotland. The Liberal Democrats had made tuition fees a non-negotiable part of their election manifesto while the Labour Party, the majority party in the coalition government, introduced tuition fees in the UK and abolished maintenance grants (Dobson, 2000). This tuition fee for higher education was highly debated among Scottish government. As a result, a committee named Cubie was established in July 1999 to find a solution for problems in funding of higher education and students which threatened to destabilize the coalition government in Scotland. The report of this committee, which was named “the Cubie Report”, suggested Scottish tuition fees to be substituted by an endowment scheme in which the Scottish Executive paid the fees in advance while students had to pay £3,000 of fees only when their annual income reached £25,000. Furthermore, poorer students would qualify for a bursary that resembled the previous maintenance grant. The report estimated that the scheme would cost £71 million per year. Eventually, the Scottish government decided that students were only required to repay £2,000 of the fees yet starting much earlier when their annual income hit £10,000. With these changes, the scheme only cost the Scottish government £50 million (Dobson, 2000).

The abolition of tuition commenced in August 2000, followed by the implementation of the endowment scheme in 2001. According to this scheme, Scottish students who studied elsewhere in the UK were charged tuition fees, in contrast with no liability incurred to those who studied in Scotland. Furthermore, English, Welsh and Northern Irish students whose education was in Scotland had to pay tuition fees but the endowment after their graduation. Students coming from outside the UK but within the European Union were not obliged to pay tuition fees if studying in Scotland but still liable to the graduate endowment post-graduation (Scottish Parliament, 2000).

The *Education (Graduate Endowment and Student Support) (Scotland) Act 2001* established the criteria by which the graduate endowment would be paid. Scottish domiciled or European Union students from outside the United Kingdom who had undertaken a first full-time degree course from 1 August 2001 onwards were eligible to pay the endowment (Scottish Parliament, 2001). Upon successfully completing their degree, students would pay £2,000, predetermined by the Scottish government initially, and £2,289 later for those commencing their

studies in the period 2006–2007. The amount was payable either by taking out a student loan, paying a lump sum or a combination of both starting from 1st April 2005.

In the summer of 2007, the Scottish government proposed the *Graduate Endowment Abolition (Scotland) Bill* that would scrap the graduate endowment altogether. It meant that neither future students nor those that graduated from 1 April 2007 onwards would be charged the endowment. On 28 February 2008, the bill was approved in a move which restored free higher education in Scotland, and it has been applied since.

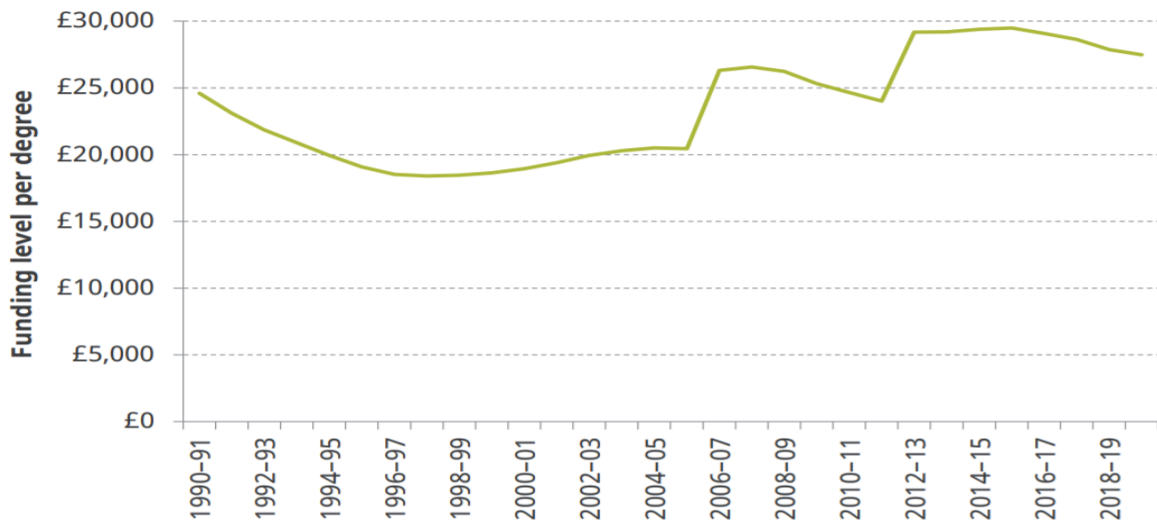
Wales

After the devolution, the *Welsh Assembly* was assigned "secondary legislative powers", which meant that unlike their Scottish counterparts, they were limited to alter only some laws set by the *Parliament* in London. The assembly could vary specified devolved issues, such as the establishment and supervision of school standards, the content of the national curriculum and the training and supply of teachers. Therefore, the tuition fee policies in Wales were in line with the ones in England.

4.3.2 Impacts of tuition fees on higher education in England

This part of the research will present how the set of tuition fee reforms in England influenced quality, enrollment, government finances and equality in the higher education system.

How was the funding per student in the UK changed after introduction and increase of tuition fees?



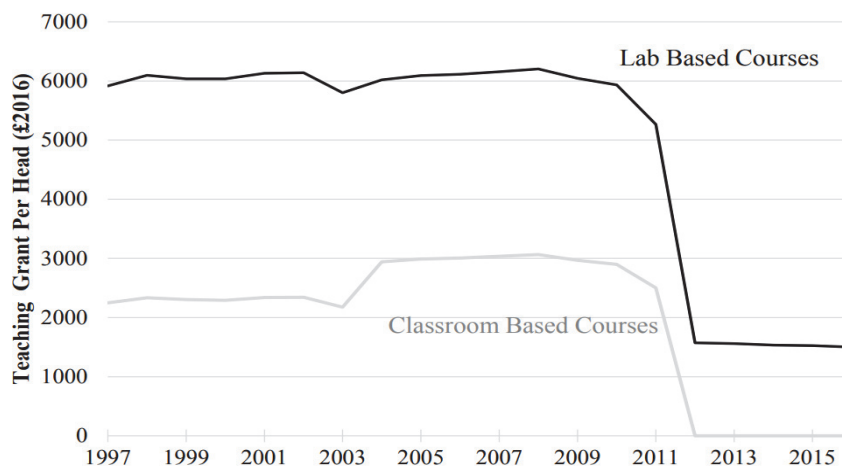
Source: 2019 Annual Report on Education Spending in England (Britton, Farquaharson, & Sibieta, 2020)

Figure 6. Total teaching resources per full-time HE student in England between 1990-1991 and 2019-2020 (2019-2020 prices)

Figure 6 describes financial resources, which consisted of government funding and revenue from tuition, for each full-time equivalent higher education student over the last three decades from 1990 to 2020. These financial resources are the available income for institutions to spend on the education of each student every year; how this has changed over the last 30 years are demonstrated in Figure 6. It can be observed that in 1990-1991, higher education institutions in England were generously funded at almost £25,000 per student in current prices. Nevertheless, it is palpable that government funding was unable to compensate for the soar in the number of students throughout the 1990s (Belfield, Farquaharson, & Sibieta, 2018). As a consequence, funding per head dropped sharply throughout the period, arriving at a historical low of above £6,000 in 1999 (equivalent to around £18,000 in the current prices).

However, the period from 1999 (following the reform in 1998, when most students were still grandfathered under the old system) to around 2005-2006 witnessed a moderate rise in funding per head of around 11%. After the introduction of a £3,000 tuition fee cap in 2006, the funding per student rocketed to over £26,000 in the 2007-2009 period, which was equivalent to an escalation of 29% in the overall resources for each higher education student. Some of these good signs, however, diminished as per student financial resources gradually declined over the following five years due to decreasing teaching grants per student in real terms (Britton, Farquaharson, & Sibieta, 2020). This was despite the fact that the maximum cap on tuition fees remained unchanged in cash terms. The reason for this stability was that English higher education institutions raised their levels of fee to the maximum ceiling and cut the level of fee waivers and bursaries.

After the 2012 reforms, there was a large increase in tuition fee income for English higher education institutions. The funding per student in England once again significantly increased to a new peak of around £29,000. At that point, university resources then increased by 22% (Britton, Farquaharson, & Sibieta, 2020) because the escalation in tuition fee income far exceeded the cut to teaching grants. As a matter of fact, however, not all training courses experienced the same climb in funding. While subjects more dependent on teaching grants like science and laboratory-based ones witnessed around 6% to 19% increase in funding, others that are fairly more affordable to teach enjoyed an increase of over 45% (Belfield, Britton, Dearden, & van der Erve, 2017).



Source: Murphy et al (2017)

Figure 7. HEFCE grants per domestic undergraduate student in England from 1997 to 2015

According to the investigation of Murphy et al (2017), Figure 7 illustrates the teaching grant per student over time from 1997 to 2015 for the two separated subject categories - lab based, and classroom based. Figure 7 describes direct income from the government to universities fell dramatically in 2012 as the government started stopping their contribution. Although all subjects suffered sharp funding decreases, relatively more costly subjects, specifically the lab-based, underwent the largest absolute reduction from the government's funding. Furthermore, the state funding level for classroom-based subjects, which were found in around 44% of the student population, was cut down to zero (Murphy, Scott-Clayton, & Wyness, 2017). This situation suggested that different training courses might experience different changes in funding though the overall tuition fee level is increased. Therefore, if the policy makers pursued the balance in the human resources, they might need to find an equilibrium point where subjects of significant expenses, such as those that involved laboratories, should receive a higher level of financial resources per student, while those of lower costs, basing mostly in classrooms should be awarded less.

In the last five years, the funding resources per student in England also remained largely unchanged. Since the period from 2016 to 2017, the fee cap was raised by £250 but has otherwise been frozen in cash terms. As a result, the real terms in funding per student fell slightly by 6% from 2016-2017 to 2019-2020 (Britton, Farquaharson, & Sibieta, 2020). In fact, while the fee cap is fixed and the majority of English higher education institutions are now charging the maximum fee, there is mostly no room for offsetting the real-terms reductions. Although the funding per student has been fluctuating in the last three decades, it can be seen that the current funding per student in England is slightly higher than what it was in early 1990s in real terms. However, this is the result of roughly doubling the number of students. This suggests that the total financial resources for students in England was relatively doubled after 30 years and tuition fee policy played a critical role in this improvement.

How did the tuition fees change the government finances for higher education in the UK?

As the tuition fees were introduced in the UK higher education systems, the financing higher education system was significantly changed, especially after the 2012 reform. A brief summary of the 2012 reform compared to the 2011 system and the current system is described as Table 14 below.

Table 13. Comparison of HE systems in the UK

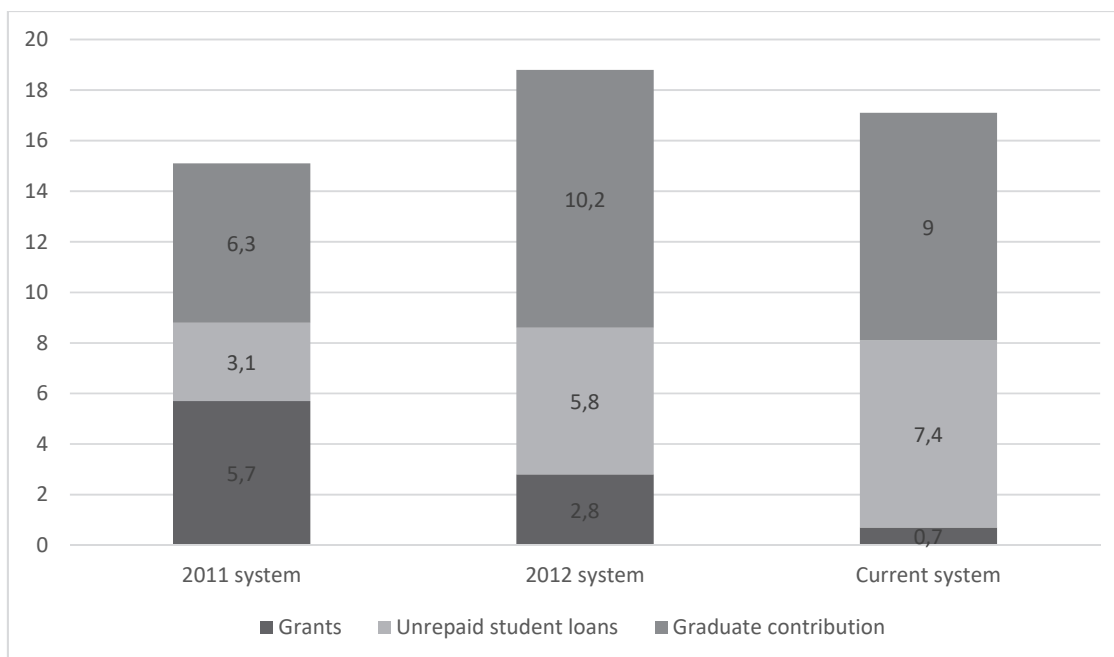
	2011 system	2012 system	Current system
Maximum fees	£3,375 in 2011, increasing with RPI thereafter ^a	£9,000 in 2012, increasing with RPI thereafter	£9,250 frozen in nominal terms
Graduate repayment threshold	£15,000 in 2011 increasing roughly with nominal earnings growth ^b	£21,000 in 2016 increasing with nominal earnings growth from 2016	£25,000 in 2018 increasing with nominal earnings growth from 2018
Interest rate on loans	RPI ^c	RPI + 0–3%	RPI + 0–3%
Maintenance grants	Yes	Yes	No
Write-off	25 years	30 years	30 years

Note: a In reality, the pre-2012 fees were frozen in cash terms at £3,465 after 2012 (rather than increasing with the RPI) but this was not the policy proposal at the time.

b In practice, this threshold was not increased exactly in line with nominal earnings growth between 2011 and 2019

c Actual policy is the minimum of base rate + 1% or Retail Prices Index (RPI) inflation. It is assumed as RPI inflation in the long run

Sources: Britton et al (2020)



Note: All figures are given in 2019 prices, in net-present-value terms using the government discount rate of RPI + 0.7%. These figures apply to full-time England-domiciled students starting at a UK university in 2019–20. Cohorts of students are held constant across systems. We assume that all students taking out loans do so for the full amount to which they are entitled, that there is no dropout from university, that graduates repay according to the repayment schedule and that they have low unearned income. This assumes a cohort size of 353,095 based on 2017–18 Higher Education Statistics Agency (HESA) estimates of England-domiciled first-year full-time undergraduates doing first degrees. We assume 10% non-take-up of loans, approximately in line with Student Loans Company (SLC) data on loan uptake. The graduate contribution does not include fees or other maintenance costs that are paid privately. Grant figures exclude targeted allocations, which are worth up to £500 million under the current system.

Source: Britton et al (2020)

Figure 8. Cost of financing higher education in UK (2019 prices) (billion Sterling Pounds)

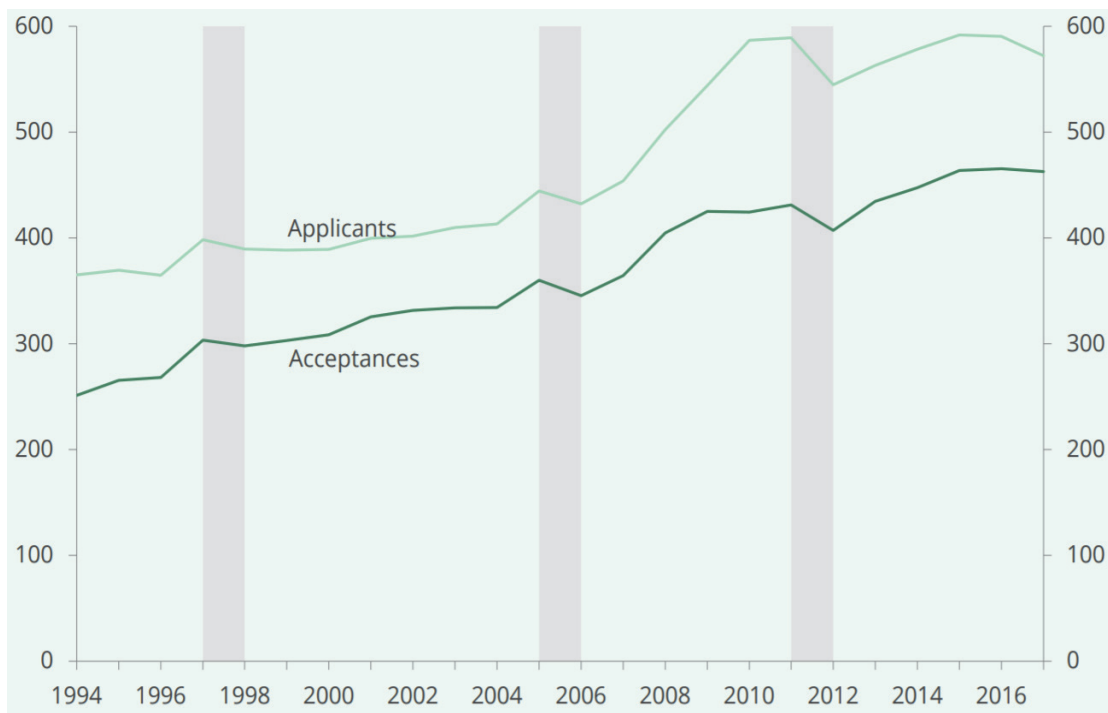
According to the calculation of Britton et al (2020), it can be seen that the tuition fee system in the UK has significantly reduced the contribution of the teaching grants from the State budget in financing higher education. Meanwhile, student loans and graduate contributions play a larger and larger role in financing higher education. The cost of the current system is actually almost £2 billion lower than it would have been had there been no reforms to the system since 2012: that is driven primarily by repeated freezes in tuition fees rather than them being uprated in real terms (Britton, Farquaharson, & Sibieta, 2020). This suggests that tuition fees might be a solution for

policy makers if they desire an increase in funding per student plus reduction in financial burden of the State.

How does the tuition fee impact the enrolment rates in the UK?

Based on the economic theories, it seems obvious that the increases in the tuition fees can decrease the enrollment numbers. As Figure 8 shows, although the total number of applicants and acceptances via The Universities and Colleges Admission Services (UCAS), the organization in charge of the application process for British universities, has increased gradually from 1994 to 2017, there are three clear drops in student number when fees were introduced and increased including introduction of tuition fees in 1998, introduction of variable fees in 2006 and lifted tuition fee cap in 2012. Before the first two drops in number of students, there were two significant escalations in applicants and acceptances because there was a certain number of students who were able to bring forward their start of higher education and hence avoid fees. However, there was no similar evidence of this before the 2012 decrease (Bolton, 2019).

Figure 9. Number of home applicants and acceptances via UCAS from 1994 to 2017 (thousands)



Sources: Paul Bolton (2019)

Neither of the first two drops in 1998 and 2006 changed the overall upward trends of student numbers, they only linked to the adjustments of fee policies. In fact, after the drops, the applicants and acceptances numbers recovered back to the upward trends. Variations in students' numbers across the home countries since 2006 can help explain the impact of increasing fees to some extent. In 2006, the quantity of applicants from Scotland (who were not liable for variable fees at higher education institutions in Scotland) increased by 2% while the number fell by 4% among those living in England. However, after then the escalation in student numbers has been larger in England (28% from 2004 to 2011) compared to Scotland (15%) (Bolton, 2019).

Although this comparison is not perfect as it does not include the impact of underlying demographics and differences in the courses covered by UCAS in England and Scotland, it can be seen that the introduction of tuition fees can create a major ongoing decrease or downward trend in enrollment numbers in England. Furthermore, Bolton (2019) also stated that there was no evidence that students from "lower" socio-economic group or (deprived) areas with historically low participation rates have been adversely impacted by tuition fee increase. In fact, the proportion of applicants from this sector has increased over the 1998-2011 period. The Higher Education Funding Council for England (HEFCE) (2010) reported that the increase rate in higher education participation in disadvantaged areas of England has been higher than advantaged areas since the mid-2000s.

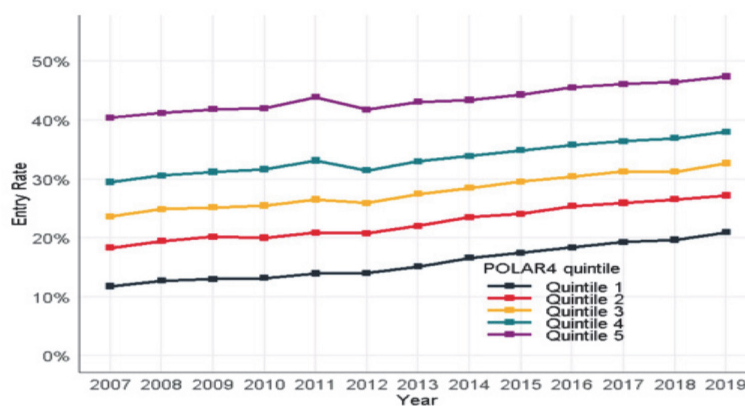
After the reform in 2012, the total number of applicants to UK higher education institutions immediately decreased by 46,500 students which is equivalent to 6.6% drop compared to 2011. Meanwhile, the overall acceptances of entry in 2012-2013 were 417,000, reduced by 53,300 (11%) compared to 2011-2012 entry (UCAS, 2013). As there were no significant changes in terms of training programs or education systems, it can be assumed that the large percentage of this drop was directly caused by the fee increase. However, since 2013, the upward trend has been back until now. From 2014 to 2016, the number of acceptances has set new records every year before slightly falling by 3% in 2017 (UCAS, 2019). After looking at the changes in number of applicants and acceptances during the period of 1994-2017 in England, it is possible to conclude that the number of enrollments might be decreased after introduction or increase of tuition fees. However, the upward trend could be quickly recovered after a short time.

Did the higher education system in the UK widen the access and participation for everyone?

Last but not least, the final interest of this section is the issue of equality in higher education access. Specifically, the concern hinges on whether or not the tuition fee reforms hindered the higher education participation of financially disadvantaged students.

Murphy et al (2017) reviewed several studies that discussed the changes in higher education access. The paper cited that Blanden & Machin (2013) found a marginal decrease in the socio-economic gap in the period just after the reform, from 37 percentage points in 1999 to 34 percentage points in 2005. One of the main measures of access is the students' average entry tariff scores before and after the reforms, which could be regarded as a loosening measure of academic selectivity. In other words, declining entry tariff scores could imply widening access to higher education to a more diverse range of students. As disadvantaged students are in most cases more marginal in terms of their prior attainment scores (Chowdry et al, 2013), any cutback in entry tariff requirements would be likely of interest to them. In contrast, it is worth noting that average entry scores of students might also be regarded as a yardstick for institutional quality. Therefore, a fall in the scores might also be interpreted as a lowering of standard.

Figure 9 shows the number of 18 years old applicants in different areas in the UK from 2009 to 2018. In order to survey the entrant numbers in these different areas, students will be divided into 5 quintiles of the participation of local areas (POLAR), where quintile 1 covers the most disadvantaged areas and quintile 5 covers the most advantaged ones.



Sources: UCAS (2019)

Figure 10. Entry rates for each POLAR4 quintile of UK 18 years old from 2007 to 2019

Figure 10 shows the upward trend in both absolute numbers and percentages of higher education entry rates of students from all areas in the UK. It suggests that the UK higher education systems reached some achievements in terms of widening the opportunities for all students to attend higher education. Despite the considerable policy reforms during the period, the gap in higher education participation among these groups stayed relatively unchanged yet still perceptible, approximately 25 percentage points between those from the top quintile and bottom ones. It can be seen that at least the growth in tuition fee did not pose a visible negative effect on students from disadvantaged areas. Meanwhile, it appears that the UK higher education system was able to narrow the gap in the entry rate between quintile 1 and quintile 5 to a record low in 2019, with the most advantaged 2.26 times more likely to enter higher education than the most disadvantaged (47.5% vs 21% of entry rates) (UCAS, 2019)

4.3.3 Discussion on the case of the United Kingdom

The chapter reviewed the changes in the tuition fee policies for higher education in the United Kingdom, especially in England, to transform the system from a free one into a high fee, high aid system. The key events that should be noted are the introduction of tuition fee in 1998, increase of tuition fee in 2006 and the reform in 2012. These important changes brought considerable effects on higher education in terms of financing per students, government expenditures, enrolment rates and social justice (equality in access opportunities) of students.

Firstly, before the introduction of tuition fees in 1998, England witnessed a bottom of funding per student compared to the period which forced the government to make a change. Although we cannot be sure that the introduction of tuition fee was the best solution at that time, it is undeniable that the funding per student in England had gradually increased since then. In 2006, the tuition fee cap was tripled from £1,000 to £3,000. As a result, the funding per student rocketed by 29% immediately and had been stable until the reform in 2012. In 2012, when the cap was lifted up to £9,000, the financial resource for the system was enhanced by 22% compared to 2011. Generally, it can be seen that the funding per student in England received several positive outcomes every time the tuition fee increased.

Secondly, on the other hand, the budget allocations from the State for higher education were significantly deducted along with increases in tuition fee caps. Compared to the financial structure of English higher education system in 2011 (before the 2012 reform), 2012 and the

current system, the grants from the State for universities decreased dramatically from 5.7 billion Sterling Pounds to 2.8 billion Sterling Pounds and 0.7 billion Sterling Pounds, respectively. This suggested that the increase in the tuition fee system successfully reduced the financial burden for the State budget. Moreover, it implied that the enhancement of the financial resources stemming from the private sector via tuition fees could significantly neutralize insufficient financial resources, which was one of the main obstacles for a state-funded and expanding higher education system.

Thirdly, the enrolment rates were recorded as another success in the higher education system of England. Although the number of applicants immediately reduced after the introduction or increase of tuition fee cap, the next few years always witnessed an upward trend. This suggests that the tuition fees which acted as the price of the service might not prevent students from entering higher education. Furthermore, under the perspective of a policymaker, we can consider the upward trend in enrollment numbers after each policy adjustment as successes of the State.

Fourthly, in terms of social justice, the escalation in enrolment following tuition fee introduction and increase did not focus on benefiting financially advantaged students, unlike the fast expansion of the 1980s and 1990s. The rate of participation among the disadvantaged groups indeed grew with higher income groups since tuition fees were introduced. As a result, the gap in higher education participation between students from different backgrounds has at least stabilized substantially since 1997, or even somewhat decreased.

Moreover, the serious increases in the cost of higher education attendance have been escorted by corresponding rises in student aid. From 2006 onwards, none of higher education students in England was required to pay any fees in advance. Government loans significantly covered for tuition fees while other loans for living expenses rose annually. Furthermore, the most well-off students enjoyed a rising liquidity of over £2,000 per year in upfront resources. Although the research cannot attribute the resilience of English higher education enrolments, and the improvement in access to the increased student's financial resources for living costs, researches (Dynarksi, 2003, Dearden et al, 2014) advocated the positive role of student aid in the higher education system. Moreover, the decline in part-time students – who for the most part was unable to access maintenance or fee loans despite a sharp increase in fees – supports the conclusion that net liquidity is important along with net prices (Murphy et al, 2017).

Another key point in financial support is students' ability to securely borrow against their future earnings. Income-contingent loans were made accessible to students in the UK with possible full tuition fee coverage, in contrast to the US systems. Moreover, they might also borrow generous sums to deal with their living expenses through the same system. The application for these aid programs was relatively straightforward and well-integrated into the college application procedure (Bolton, 2017). Loan repayment per month was calculated as a portion of earnings above a minimum threshold (for instance, 9% of earnings above £21,000), to be collected through the payroll tax system. As a result, the loan repayments as a percentage of monthly income was comparatively modest while the administrative burden stayed low and the default risk was minimized. All of the information suggests that in order to achieve an increase in funding per student and enrolment rates and social justice while the tuition fee increases, the government must carefully pay attention and seriously spend effort on financial aid and student support.

Although the historical evidence generally described a positive experience, the UK's higher education sector still encountered various challenges. In their income contingent loan system, a drawback lay in the fact that the full risk of no repayment fell into the UK government in contrast to zero risk incurred to higher education institutions. Furthermore, the universities still received certain income from tuition fee payment in any case (not excluding when a student failed, ended up with a low-quality degree or fared poorly in the labor market). Therefore, the higher education institutions were discouraged to offer differing prices that reflected the corresponding quality and a good deal of them might charge tuition fees above the costs of provision. In addition, the elimination of upper limits on student numbers motivated institutions to recruit students in low-cost courses.

Another issue regarding the Income Contingent Loan (ICL) system may be their generous terms that likely prompted students to prefer ICLs-offered courses to other courses more suited to their capabilities. This imbalance in provision of the higher education system might cause inefficiencies in the higher education market. Furthermore, the UK's ICL system was rather complicated, making a number of prospective students encounter difficulties in grasping its inconsistencies. In fact, the media primarily targeted debts instead of positive impacts of higher education institutions or nuances of the ICL system, leading to many youngsters lacking full understanding of the income contingent nature of the loan (McGuigan et al, 2016). Moreover, other

aspects of the higher education system in England were also not perspicuous. For instance, a great number of English universities provided munificent institutional grants (bursaries) to the financially disadvantaged. Students, however, were most probably unaware of these institutional-level aids when making their decision on enrolment due to the absence of a platform providing this information (Murphy & Wyness, 2015). Research studies from other countries also suggested similar situations (Scott-Clayton, 2012). Hence, no model was perfect but as the English experience showed, the provision of a completely free higher education is scarcely the only path leading to enhancing quantity, quality, and equality in higher education.

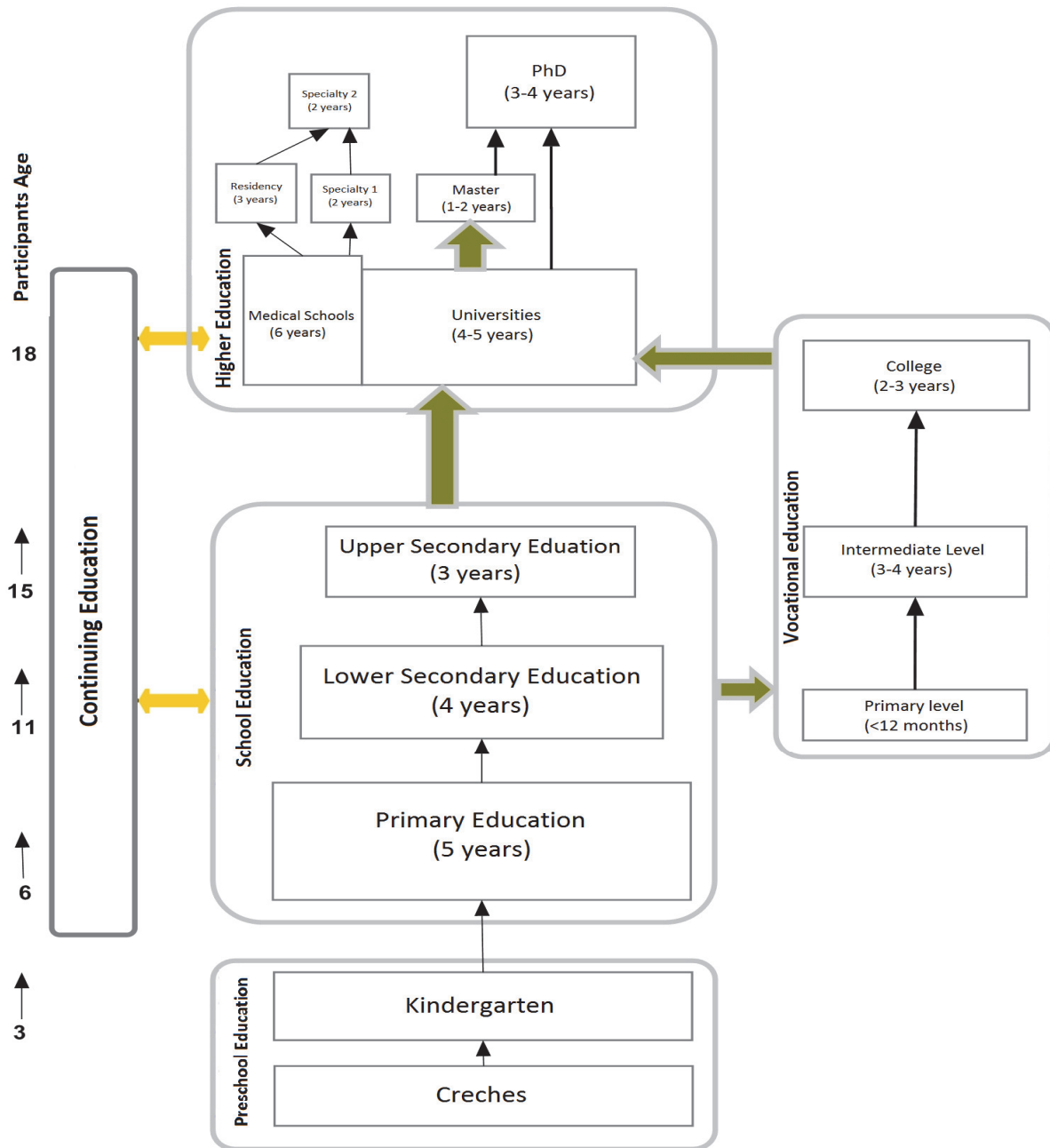
Chapter 5 – Case study of Vietnam

This chapter will focus on discovering the current situation of public higher education tuition fee policies in Vietnam. Firstly, some main features of the Vietnamese public higher education system will be investigated while the historical data of tuition fee policies since 1998 will be the second section of the chapter. Furthermore, the evaluation of the tuition fee policies from different perspectives will be discussed based on the secondary data collected from interviews and questionnaires. Through these points, the chapter might bring a further cloudless picture of the situation in Vietnam and find out its disadvantages.

5.1 Description of education system and higher education governance in Vietnam

Summarizing the Vietnam Education Law (2005); the adjustment in Vietnam Education Law (2009); Higher education Law (2012) and Vocational Education Law (2014), the national education system in Vietnam could be divided into several categories and described as a facilitated model as follow:

Figure 11. Education system in Vietnam



Source: Author's description based on documents mentioned above

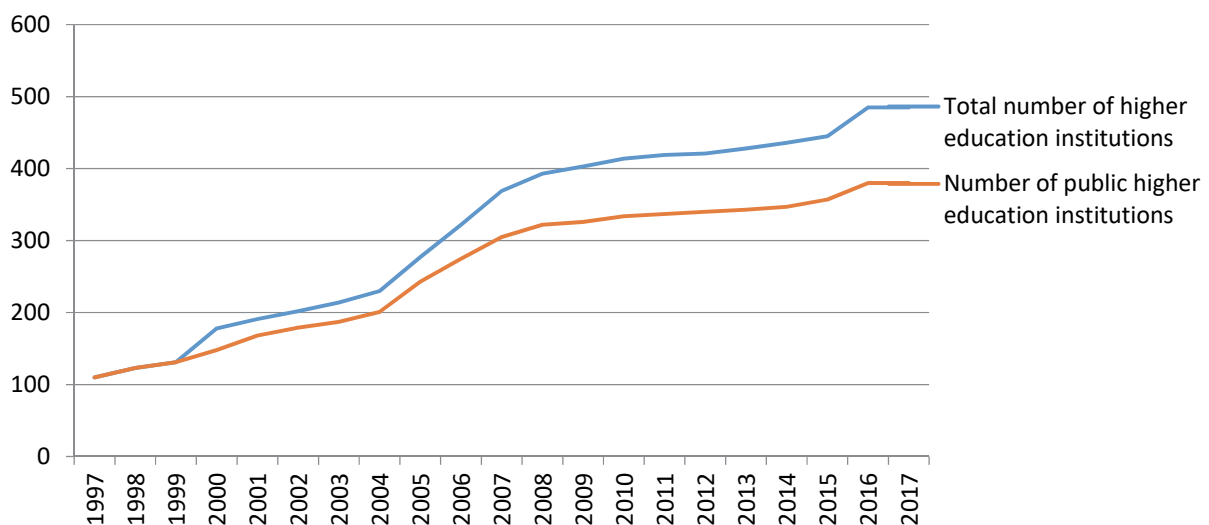
Along with other levels of education, higher education plays a critical role in creating high-quality human resources for the country. Therefore, higher education has always received high attention and investments from the State, especially public higher education institutions. The management of public higher education institutions in Vietnam involved many state authorities. In general, public universities in Vietnam can be divided into four categories including national universities, institutions under Ministry of Education and Training, institutions under other Ministries and their branches, and institutions under the provincial government:

- National Universities: This sector includes Hanoi National University and Ho Chi Minh City National University which is administered directly by the central government.
- Institutions under the Ministry of Education and Training: There are 82 institutions under the administration of Ministry of Education and Training, such as the University of Technology, the University of Transport and Communication, the National Economics University, etc. These institutions are fully administered by the Ministry of Education and Training
- Institutions under other Ministries and their branches: There are 67 institutions under the administration of different Ministries such as Vietnam National University of Agriculture (Ministry of Agriculture and Rural Development); Banking Academy (State Bank of Vietnam); Academy of Finance (Ministry of Finance); Hanoi Medical University (Ministry of Health); National Academy of Public Administration (Ministry of Interior), etc. These institutions are administered mainly by the respective ministries along with the guidance from the Ministry of Education and Training in terms of training contents.
- Institutions under provincial government: There are 21 institutions under this category such as Ha Tinh University (Ha Tinh province); Hung Vuong University (Phu Tho province), Saigon University (Ho Chi Minh City), etc. These institutions are administered mainly by the respective provincial governments along with the guidance from the Ministry of Education and Training in terms of training contents.

5.2 Overview of public higher education system in Vietnam

The scale of the higher education system in Vietnam

The scale of higher education in Vietnam has quickly expanded during the last two decades. In the 2016-2017 academic year, Vietnam has 235 universities and academies including 170 public institutions, 60 private institutions and 5 institutions with 100% foreign capital. This scale was only one third in the 1999-2000 academic year.

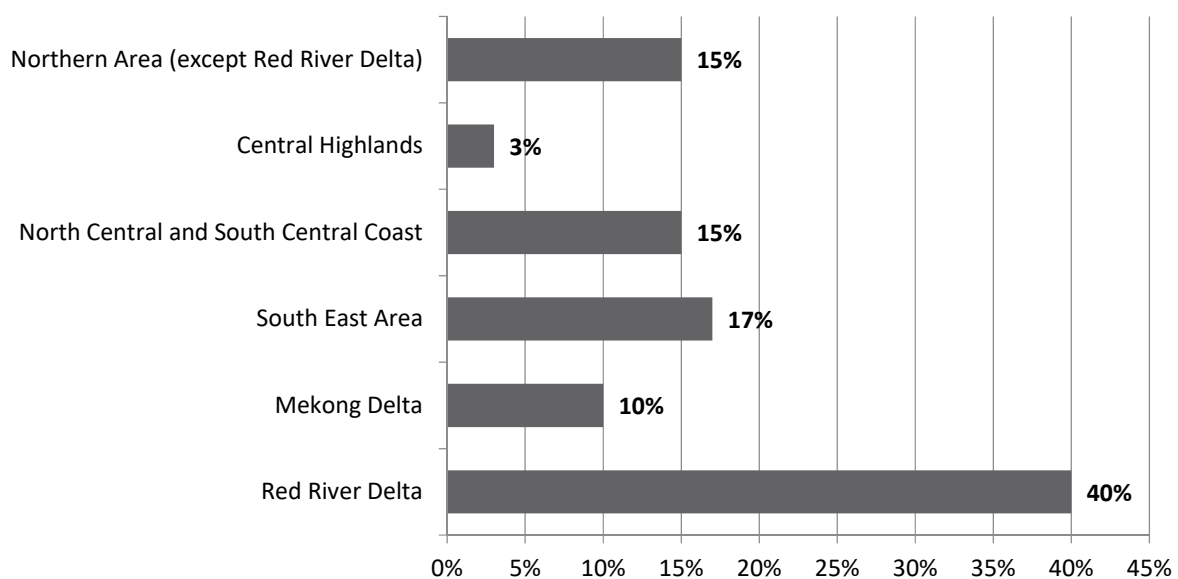


Source: General Statistics Office of Vietnam (2018)

Figure 12. Number of higher education institutions in Vietnam (1999-2017)

Implementing the master plan on the system of universities and colleges in the 2006-2020 period which was approved in Decision 121/2007 / QD-TTg of the Prime Minister on 27/7/2007, the Vietnam Government paid significant attention to establishing more universities and colleges in disadvantaged areas. Many public universities have been established across the nation to create favorable conditions for human resource development of the local economy. As of July 2019, 41 out of 63 provinces and cities in Vietnam have universities (65%) while 62 out of 63 provinces and cities have at least one college or university (except Dak Nong). Counting only two cities in Hanoi and Ho Chi Minh City have 175 universities and colleges, accounting for 37% of the

country. However, in geographical terms, higher education institutions are unequally distributed across the country (Figure 13). Furthermore, mostly three fourth of the institutions are located in the Red River Delta, the South East, the North Central Coast and the Central Coast. It seems that higher education institutions in Vietnam are distributed in accordance with the location of large cities and important industrial areas where the labor market is more diverse and potential for students after their graduation. The other small number of institutions is located in the mountainous, remote and disadvantaged areas such as the Northwest, the Central Highlands and the Mekong Delta. Although this number is limited, these institutions still have played an important role in creating potential access to higher education for local residents, as well as performing tasks of on-site human resource development, serving the local socio-economic development objectives.

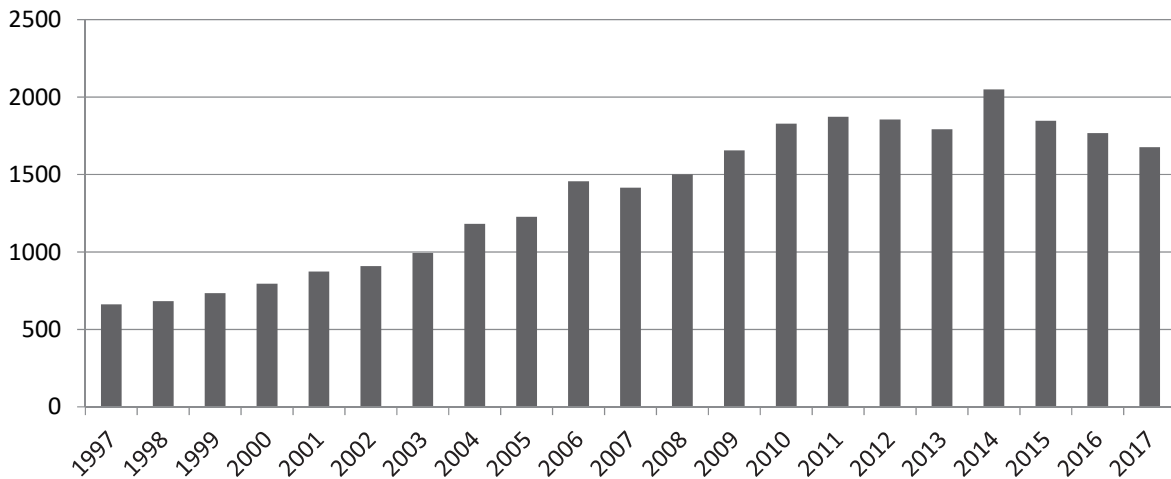


Source: General Statistics Office of Vietnam (2019)

Figure 13. Geographical distributions of higher education institutions in Vietnam (2019)

Beside the number of institutions, the data related to higher education students in Vietnam should be mentioned. In the 2016-2017 academic year, there were 1,432,544 students participating

in public higher education representing 94% of the total students in the system. It can be seen that the student number was mostly 2.5 times the data of the 1999-2000 academic year.



Source: General Statistics Office of Vietnam (2018)

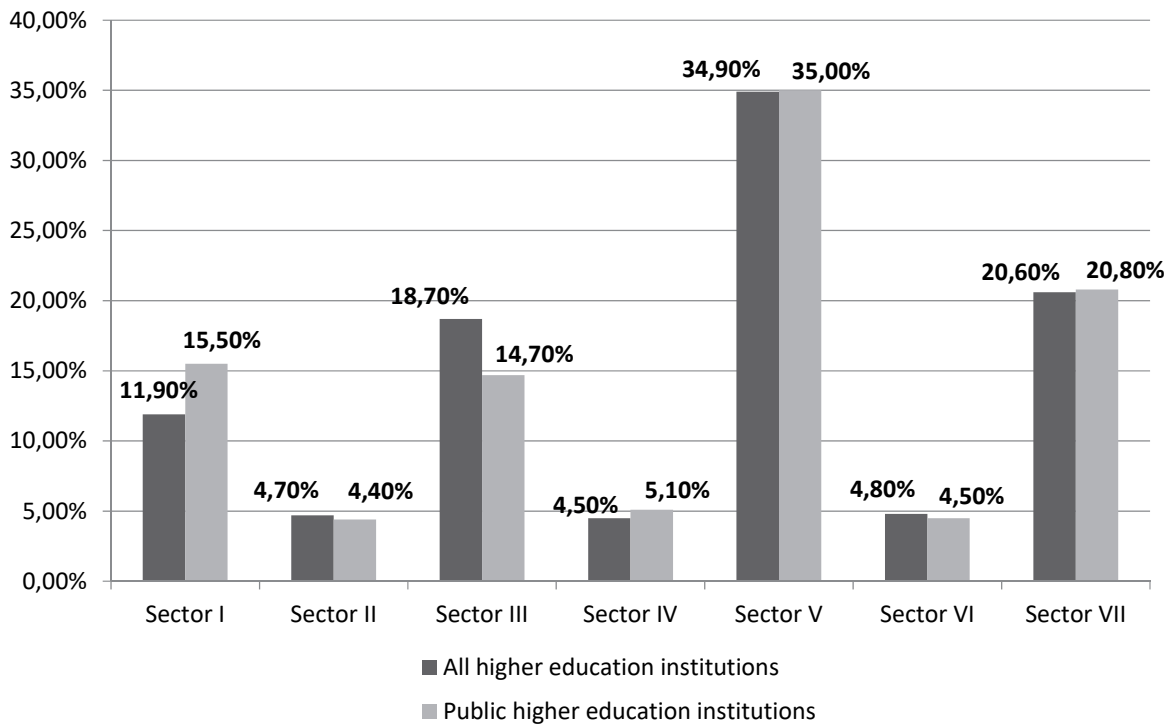
Figure 14. Number of students in public higher education institutions in Vietnam (thousands) (1997-2017)

Since 2014, the number of newly enrolled students into higher education in Vietnam has been decreasing gradually. Therefore, the total quantity of students has also dropped. This is the result of changing in demand of students after graduating from their high school. At the end of 2013, the number of unemployed students after their graduation reached a record of over 101,000 (General Statistics Office of Vietnam, 2015). In order to deal with this situation, the Ministry of Education and Training required high schools to open more career-orientation programs for their students. These programs encouraged students to attend further education depending on their strengths and capabilities rather than trying their best to go to universities (Decision 37/2013 QD-TTg, 2013). As a result, there was a considerable number of high school students applied into vocational schools and the number of first-year students in higher education was significantly reduced. Moreover, the government also provided further support (in terms of finance and policies) for vocational schools to expand their operational scale and training quality without increasing tuition since 2014. Therefore, there have been more and more high school students attracted to vocational schools which are considered as cheaper and more suitable for their capabilities than

universities. This is also a part of the national plan on increasing funding per student to improve the training quality in higher education (Decision 37/2013 QD-TTg, 2013).

Along with the expansion in the number of universities, universities also diversify their courses. Only within 2009 and 2010, 200 new higher education majors have been opened (General Statistics Office of Vietnam, 2010). However, there is a disparity in the number of students enrolled across different sectors. The economics, finance, technology, and engineering are relatively more desirable by the students. Since 2017-2018 academic year, the Ministry of Education and Training of Vietnam has divided the students in 7 sectors as following:

- Sector I: Education Science and Teacher Training
- Sector II: Arts
- Sector III: Business and Administration; Law
- Sector IV: Natural Sciences
- Sector V: Mathematics and Statistics; Computer Science and Information Technology; Technology; Manufacturing and Processing; Architecture and Construction; Agriculture, Forestry and Fisheries; Veterinary
- Sector VI: Healthcare Sciences and Services
- Sector VII: Social Sciences and Services; Journalism and Communication; Tourism and Personal Services; Sports; Transportation Services; Environmental Sciences and Environment Protection; National Security



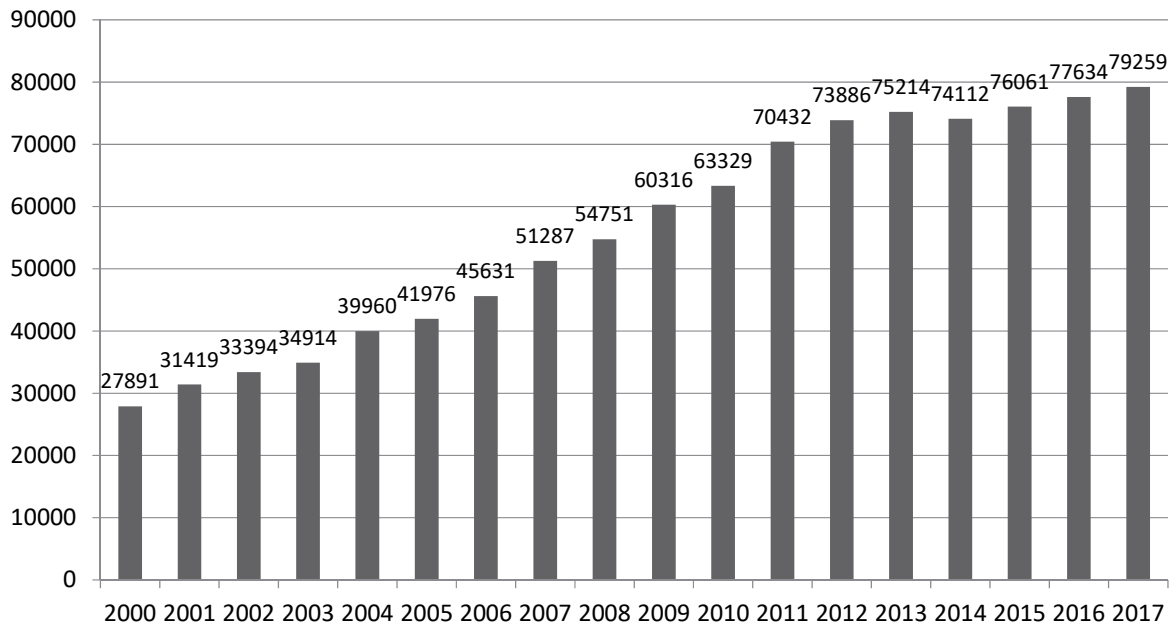
Source: General Statistics Office of Vietnam (2018)

Figure 15. Student distribution in 7 higher education sectors (2016-2017 academic year)

It can be seen that the basic sciences (sector IV), which are necessary for the development of the country, have attracted relatively less students compared to other sectors. The situation suggests limitations in the structure of student distribution which might require further adjustments in the near future and tuition fee policy might play a useful role in the adjustment process.

With the expansion of the system of higher education institutions, the number of lecturers and professors at Vietnamese higher education institutions has increased gradually over the last two decades. By the 2016-2017 academic year, the number of lecturers and professors working at the public institutions was about 79,000, an increase of approximately 2.8 times compared to the 1999-2000 academic year (Figure 16). However, the rate of students over lecturers and professors in Vietnam is 24-25 students per lecturer in average and this rate is even up to 90 students per lecturer in some institutions. As this high rate can significantly affect the educational quality,

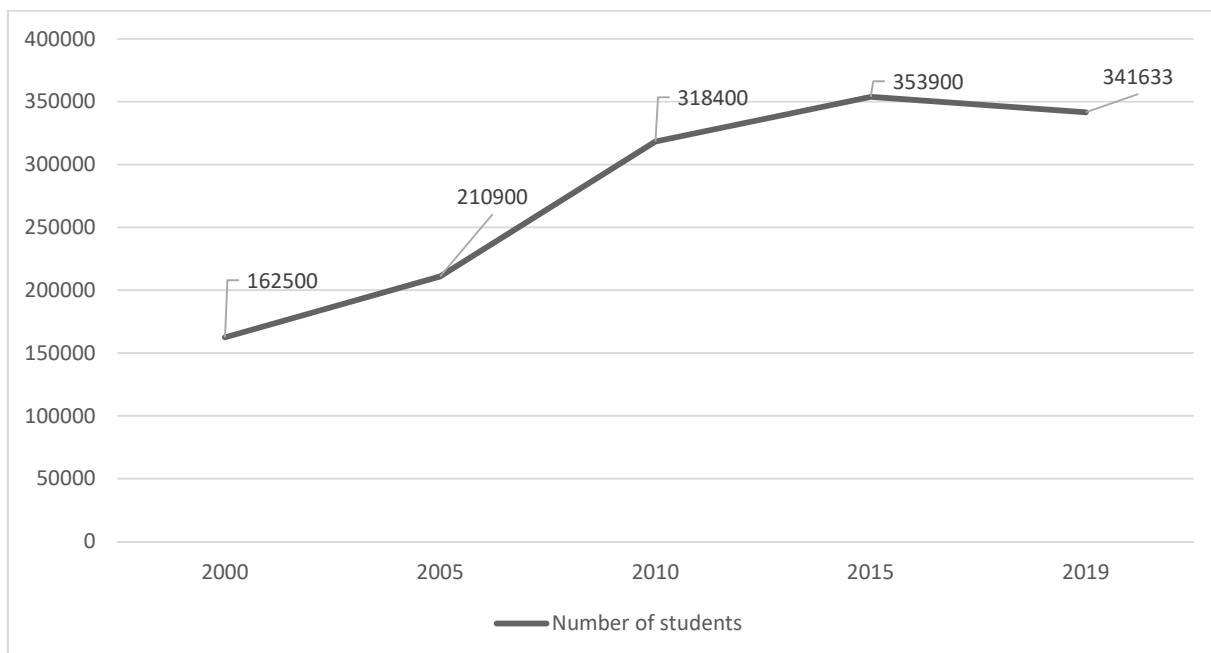
higher education institutions are required to have appropriate admission policies in place to keep this rate at a reasonable level.



Source: General Statistics Office of Vietnam (2018)

Figure 16. Number of lecturers and professors working at public higher education institutions in Vietnam from 2000-2017

The quality of public higher education could also be reflected in the qualification of teachers and the quality of students. The level of higher education lecturers and professors in Vietnam is increasing gradually. Decision No.121/2007/QĐ-TTg dated 27 July 2007 issued the master plan for the national network of universities and colleges in the 2006-2020 period which targets 70% of university lecturers and over 50% of college lecturers hold at least a master's degree or higher; over 50% of university lecturers and at least 10% of college lecturers hold a Ph.D degree by 2015. To accomplish this mission, in the period of 2006-2013, the number of PhD-holding teachers has been increased by 1.5 times and occupies 14-15% of total number of teachers on average. Meanwhile, the number of MSc or MA holding teachers has increased by 2.4 times and now accounts for 47% of the total number of lecturers in the country. The qualification of teachers has to be improved to meet the requirements of knowledge and pedagogical profession which directly facilitate the learning process of students.



Source: General Statistics Office of Vietnam (2019)

Figure 17. Number of students graduated from public higher education institutions in Vietnam from 2000-2019

In terms of the student's quality, the number of graduates from public higher institutions in Vietnam has increased rapidly from around 160,000 students in 2000 to over 350,000 in 2015. This is a qualified and potential human resource which can meet the demands of the Vietnamese labor market. The level of satisfaction on quality of graduated students has been significantly improved. According to a research study on 150 enterprises by Ngo Thi Thanh Tung (2009), 46.43% of higher education graduates, who are working in enterprises, can satisfy the average requirements of work while 40.19% of them could perform at a good level. At the college level, these percentages are 42.6% and 32.46% respectively.

5.3 Historical review on tuition fee policies of public higher education system in Vietnam

Tuition fee could be considered as one of the most important financial resources for public higher education institutions in Vietnam. The central government of Vietnam has been responsible for the tuition fee policies for this sector since the first independent day of the nation. As the country faced a lot of economic and social changes in the last few decades, the tuition fee policies also have to experience many adjustments. Although introduction of tuition fees is one of the characteristics of “marketization” in higher education, the government of Vietnam are always against “marketization” aspects as it contains profit-seeking from educational services (which is unacceptable in a socialist system) and use “socialization” instead. The term “socialization” is commonly referred to “the state assuming costs or ownership over a given social activity”. However, in Vietnam, the term refers to “all segments of society contributing” to some aspects of social life (London, 2010). This explains why “marketization” is never mentioned in any official documents in Vietnam though it is a common term in the world.

The period before 1998

Before 1987, all Vietnamese higher education students enjoyed receiving a full pension from the government. During this period, Vietnamese higher education system was centralized without any market-oriented steering while higher education programs aimed to meet the labor demands of specific ministries. From 1987 to 1994, the Ministry of Education and Training provided some public universities additional quota of non-public-funded students who were required to pay a small amount of tuition fees (around VND 200,000 per semester which was less than USD 20 at that time). These students were selected by their results at the national entrance examination. The results of these students were lower than the threshold for public-funded (free-tuition) students but had to be higher than the minimum qualified-grades stated by the Ministry of Education and Training (normally 13-16 points for 3 subjects in the entrance exam). This dual track tuition fee policy has expanded the potential access to higher education for many financially advantaged students at that time. By 1998, the number of students paying tuition fees was four times higher than the number of full-time students receiving subsidy from the State (UNESCO, 2006).

The 1998-2009 period

The 1998-2009 period is the period when the central government of Vietnam implemented the tuition fees freeze policy. In which, the policy on tuition fee for higher education had to comply with the Prime Minister's Decision No. 70/1998 / QD-TTg of March 31, 1998 and Circular No. 54/1998 / TTLT BGD & DBTTC on August 31, 1998 which guiding the implementation of Decision No. 70/1998 / QD-TTg. Accordingly, higher education institutions are allowed to collect tuition fees according to the prescribed framework in order to enhance their financial resources; upgrade infrastructure; invest in teaching equipment; and improve the incomes of the lecturers. For public institutions, tuition fee levels ranged from VND 50,000 to VND 180,000 (EUR 1.9 to EUR 6.8^a) per month per student. In 2006, the total tuition fees collected by the public higher education sector were estimated at VND1,751 billion (EUR 65.81 million). It means that the financial source from tuition fee was equal to 30-36% of the total state budget that was distributed to the higher education system (Ministry of Finance and Ministry of Education and Training, 2008).

During the policy implementation process on higher education tuition fees under Decision 70/1998 / QD-TTg and Circular No. 54/1998 / TTLT of MOET, a few limitations have been revealed. Firstly, the tuition framework does not reflection discrimination on majors and training programs as well as differences in local socio-economic conditions. The fact that the tuition fees were the same in all training programs and all locations seems biased. Secondly, fixed tuition fee caps were not adjusted while GDP per capita of Vietnam increased by 4.7 times; minimum wage increased by 1.86 times; consumer price index doubled during this period (1999-2008). During this period, according to calculations from the Ministry of Education and Training, salaries and allowances for employees of the higher education institutions usually account for 50% to 60% of their total recurrent expenditure. Thirdly, higher education tuition fees were not calculated based on the educational and operational costs. Therefore, the system negated the motivation of institutions to invest in enhancing infrastructures, developing new courses, and improving educational quality. In addition, unadjusted caps during such a long period might lead to the phenomenon that some institutions collect other fees beyond the framework of the State in order to match their operational costs. As a result, the interests of students would be narrowed. Fourthly,

with the tuition fee of VND 180,000 (EUR 6.8) per month, the tuition cost of higher education for 4 years or 5 years to become bachelor is VND 7.2 million to VND 9 million (EUR 270 to EUR338^a). However, during the first year of employment, the average minimum income of bachelors ranged from VND 1.2 million to VND 3 million (EUR 45 to EUR 113^a) per month, equivalent to VND 14.4 million to 36 million (EUR 540 to EUR 1356^a) per year. This means that the higher education graduates only need 3 to 8 months after graduation to recover their investments on tuition fee of 4 to 5-year training process (Ministry of Education and Training, 2009). This narrowed student's awareness of higher education costs and negatively affects their efforts and motivations.

In terms of financial support for students, since 2007, the government of Vietnam has started providing preferential student loans according to Decision No.157/2007/QD-TTg dated 27 September 2007 of the Prime Minister on Financial Support for pupils and students; and Guideline No.2162A/NHCS-TD dated 02 October 2007 providing detailed guidance on procedures and conditions for student loan under the Decision No.157/ 2007/QD-TTg. Accordingly, the subjects of student loans included students either orphaned or their parents lost capability to work; or students from poor and near-poor households; or students from families having financial difficulties due to accidents, illnesses, natural disasters, fires during their study.

The 2009-2015 period

During the 2009 – 2015 period, the State started allowing higher education institutions to increase their tuition fee significantly. The main changes in the tuition fee mechanism were set out in Resolution 35/2009/QH12 dated 19 June 2009 of the National Assembly of Vietnam on guidelines and orientation for renovating some financial mechanisms in education and training from the 2010-2011 academic year to the 2014-2015 academic year. This document outlined three basic principles of public higher education tuition fees: (i) Tuition fee level has to be calculated in accordance to the principle of sharing higher education costs between the State and learners; (ii) Higher education institutions are allowed to provide advanced programs and courses with higher tuition fees; (iii) Tuition fees are determined separately between different training sectors and levels; and associated with the quality of programs. After the implementation of this resolution, public higher education tuition fees are distinguished between three groups of higher education majors and its cost of training levels as Table 16 below.

On 21 August 2009, the Prime Minister issued Decision No.1310/QD-TTg on adjusting the tuition framework for public vocational education institutions and higher education institutions in the 2009-2010 academic year. In which, tuition fees for vocational degrees range from VND 40,000 to VND 200,000 (EUR 1.5 to EUR 7.5^a) per month per student while the tuition fees for higher education degree were from VND 50,000 to VND 240,000 (EUR 1.9 to EUR 9.0^a) per month per student (33% increase compared to the previous period). On the other hand, on May 15, 2010, the Government issued Decree No.49/2010/ND-CP stipulating tuition fee exemption; tuition fee reduction; financial support; and mechanism for tuition fee collection and use from the 2010-2011 academic year to the 2014-2015 academic year.

This Decree No.49/2010/ND-CP is the legal orientation for tuition fee adjustments along with improving the quality of higher education in Vietnam. In which, the higher education institutions can independently calculate their tuition fee levels of advanced training programs, but they need the permissions from the Ministry of Education and Training before the implementation. In addition, Point 11 in the Part 9 of the Decree requires higher education institutions to provide a clear description on the tuition fee levels applied to advanced programs for learners before their application on these programs. According to Decree 49, tuition fees for higher education are based on the cost-sharing concept between learners and the State. The tuition caps of public higher education institutions were regulated in recent years as follow:

Table 14. Tuition fee caps for public higher education institutions in Vietnam (divided by 3 training sectors) 2010-2015

Training Sectors	2010- 2011	2011- 2012	2012- 2013	2013- 2014	2014- 2015
Sector I: Social Sciences, Economics, Laws, Agriculture, Forestry and Fisheries	290 (10.95)	355 (13.40)	420 (15.85)	485 (18.31)	550 (20.76)
Sector II: Natural Sciences; Technology, Sports, Arts, Tourism, Services	310 (11.70)	395 (14.91)	480 (18.12)	565 (21.33)	650 (24.53)
Sector III: Medical Sciences and Services, Pharmacy	340 (12.83)	455 (17.17)	570 (21.52)	685 (25.86)	800 (30.20)

Unit: Thousand VND(EUR)/Student/Month*

Source: Ministry of Education and Training (2010-2015)

Based on the annual tuition fee cap as set in Table 15; the characteristics and development requirements of the training sector; the form of higher education (full-time, part-time, online, etc); the situation of students, the Directors, the Principals and Heads of higher education institutions shall prescribe specific expected tuition fees for each type of training programs. This expected tuition fee level must be submitted to the Ministry of Education and Training and the Ministry of Labor, War Invalids and Social Affairs for permission. Moreover, Decree 49 also stated that the tuition fees should be collected monthly, but students can choose to pay for the whole semester or academic year.

Decree 49/ND-CP also provides tuition fee exemption and reduction for students of public higher education institutions who have contributed to the national revolution and their relatives; have parents permanently residing in border communes, islands, highlands and communities with exceptional difficulties; orphaned or disabled or have economically disadvantaged conditions; are ethnic minority students or their households have a maximum income of 150% compared to the income of poor-level households. However, the implementation of tuition fee exemption and reduction under Decree 49 still had some shortcomings. Students who received these supports still had to pay tuition fees at the attending school as other students. Then, these students might perform the procedure to receive tuition fee exemption and reduction in their hometown. The payment of tuition fees before receiving this local compensation forced many poor students to borrow money with high interest rates to pay tuition fees upfront. This situation significantly reduced the effectiveness of the policy.

Regarding the financial support policies for students, the State of Vietnam usually offers scholarships to encourage students to study at public universities. The candidates for these scholarships are selective students, pre-university students, students in ethnic boarding schools, students with disabilities. Meanwhile, loans for students were made through the household loan system. The representative of the household is the person who directly borrows money and is responsible for repayment to the Vietnam Bank for Social Policies. According to the Prime Minister's Decision No.853/QD-TTg dated June 3, 2011, the interest rate for student loan was 0.65% per month (7.8% per year) or freezing debts for students who are unemployed in accordance to Decision No.157/2007/QD-TTg. Specifically, students do not have to pay both principal and interest during their study. However, they must pay principal and interest for the first time

immediately after their employment no more than 12 months from the graduation. Until the last repayment period, students who have difficulties in repaying their debts can send written requests for debt rescheduling and their case shall be considered by the Vietnam Bank for Social Policies to extend the debt (the extended time limit is half the repayment term).

Although Decree 49 had been gradually adjusted from 2009, this system reform still had obvious limitations. In which, the Vietnamese higher education tuition fee model was divided into only three main sectors and the tuition fees cap of each sector is applied for all training majors within it. This model seems unreasonable because the educational cost level of each major is differentiated among a sector. Moreover, the demand of students in each major is also varied. For instance, in recent years, the number of students attending economic-related courses is considerably higher than agriculture or social sciences though they are all in the same sector according to the Degree 49. As a result, Vietnamese public higher educations started narrowing training majors which require a high level of costs or are not attractive for learners. This situation might lead to imbalance in the national human resources in future. In addition, the same tuition fee level applied to all public higher education institutions in the sector cannot reflect the educational quality of each institution and even demotivated institutions to improve their training services. Therefore, the State had to keep adjusting tuition fee policies to minimize these limitations in the next period.

After 2015 period

From the 2015-2016 academic year, Vietnam started applying the tuition fee policy framework for higher education according to Decree No.86/2015/ ND-CP issued on October 2, 2015. Compared to Decree 49, Decree 86 has a new point that tuition fees for public higher education are based on the principle of financial autonomy of each institution. Generally, the tuition fees of public higher education institutions which independently finance their regular and investment expenditures according to the Government's regulations shall be determined on the basis of techno-economic norms and cost norms issued by competent authorities. Meanwhile, tuition fees of the institutions without financial autonomy according to the Government's regulations shall be determined on the basis of balancing State support and contributions of learners. According to Clause 17 – Article 1- Law on Higher Education of Vietnam and Law

Number 34/2018/QH14, higher education institutions which can satisfy these following requirements can apply for autonomy pilot program:

- The institution established their own administrative council
- The institution was qualified as meeting the quality standards of higher education institutions by a legal education quality accreditation organization
- The institution issued and implemented regulations on organization, operation, internal management and finance and received approvals from the Ministry of Education and Training
- The institution implemented decentralization of autonomy and accountability to each unit and individual in their system
- The institution published quality assurance conditions, accreditation results on training quality, employment rate of students after graduation and other information as prescribed by laws

However, the development orientation for these institutions is also focusing on reducing their financial reliance on the State budget. Although the State of Vietnam tends to transfer the budget burden from financing higher education to learners, it is necessary to maintain the tuition fee caps which prevent higher education to become a chasing-profit industry. The caps for higher education tuition fees for the public higher education sector from 2015-2016 to 2020-2021 academic year are expected in the Decree 86/2015/ND-CP (2015) as follows:

Table 15. Tuition fee caps for higher education institutions which were allowed to independently finance their regular and investment expenditures in 2015-2021 period (divided by training sector)

Training Sectors	2015-2018	2018-2020	2020-2021
Sector I: Social Sciences, Economics, Laws, Agriculture, Forestry and Fisheries	1,750 (66.06)	1,850 (69.83)	2,050 (77.38)
Sector II: Natural Sciences; Technology, Sports, Arts, Tourism, Services	2,050 (77.38)	2,200 (83.04)	2,400 (90.59)
Sector III: Medical Sciences and Services, Pharmacy	4,400 (166.08)	4,600 (173.63)	5,050 (190.62)

Unit: Thousand VND(EUR)/Student/Month

Source: Decree 86/2015/ND-CP

Table 16. Tuition fee caps for higher education institutions which were not allowed to independently finance their regular and investment expenditures in 2015-2021 period (divided by training sector)

Training Sectors	2015- 2016	2016- 2017	2017- 2018	2018- 2019	2019- 2020	2020- 2021
Sector I: Social Sciences, Economics, Laws, Agriculture, Forestry and Fisheries	610 (10.95)	670 (13.40)	740 (15.85)	810 (18.31)	890 (20.76)	980 (20.76)
Sector II: Natural Sciences; Technology, Sports, Arts, Tourism, Services	720 (11.70)	790 (14.91)	870 (18.12)	960 (21.33)	1060 (24.53)	1170 (24.53)
Sector III: Medical Sciences and Services, Pharmacy	880 (12.83)	970 (17.17)	1070 (21.52)	1180 (25.86)	1300 (30.20)	1430 (30.20)

Unit: Thousand VND(EUR)/Student/Month*

Source: Decree 86/2015/ND-CP

(*) 1 EUR = 26,493 VND (2018 Exchange rate)

Section Conclusion

This section of Chapter 4 has reviewed some key points of the current situation in Vietnam such as the number of institutions, students, teachers, and their distribution in the system. Moreover, the historical information on tuition fee policies in Vietnam also brought up the background knowledge in the policy development process. In general, the State of Vietnam has paid considerable efforts to strengthen the financial model in the higher education system during the last two decades. However, the limitations and the space for improvements still existed. The next section of the Chapter will further analyze the situation from perspectives of administrative level and student level.

5.4 Investigation on impacts of tuition fee increase in Vietnam

As mentioned in the previous chapter, the increases in tuition fee level in the United Kingdom and China have led to both positive and negative results for these two higher education systems. This suggests that an increase in tuition fee level in Vietnam might create some similar effects. Moreover, this suggestion seems reasonable as Vietnam higher education is experiencing a comparable developing phase which is very comparable with Chinese case a few decades ago. In which, the higher education institutions have to manage with limited and decreased State budget distribution while the demand for their services is escalating in both quality and quantity.

Since the 2014-2015 academic year, the State of Vietnam started allowing some public universities to be more independent in terms of finance and administration (Autonomy Plan for Higher education institutions – Resolution No 77/NQ-CP-2014). As a result, the tuition fee levels in these universities have been increased significantly and the revenue of these institutions were considerably boosted. By investigating the impacts of tuition fee increase in these universities, the researcher expected to find possible outcomes of tuition fee increase for the whole higher education system in Vietnam. The investigation bases on three different sources of data including annual and financial reports; information gathered from interviews with experts and representatives of universities; questionnaires for students.

At the time the research was started (in 2016), there were only 10 universities in Vietnam that were approved in an autonomy pilot program for more than 2 years. Therefore, this case study compared the financial and other data from annual and financial reports of 10 Vietnamese universities in two different periods including:

- 2013-2014 – Before the autonomy pilot process
- 2015-2016 – After the autonomy pilot process

Moreover, the representatives from administration boards or finance departments of these universities were also interviewed to provide further details on impacts of tuition fee increase in their institutions. In fact, the government in Vietnam has never significantly increased tuition fees for higher education for many years. Therefore, examining the changes after the autonomy pilot process might be the only way to gather some hints about the effects of tuition fee increase on public higher education institutions in Vietnam.

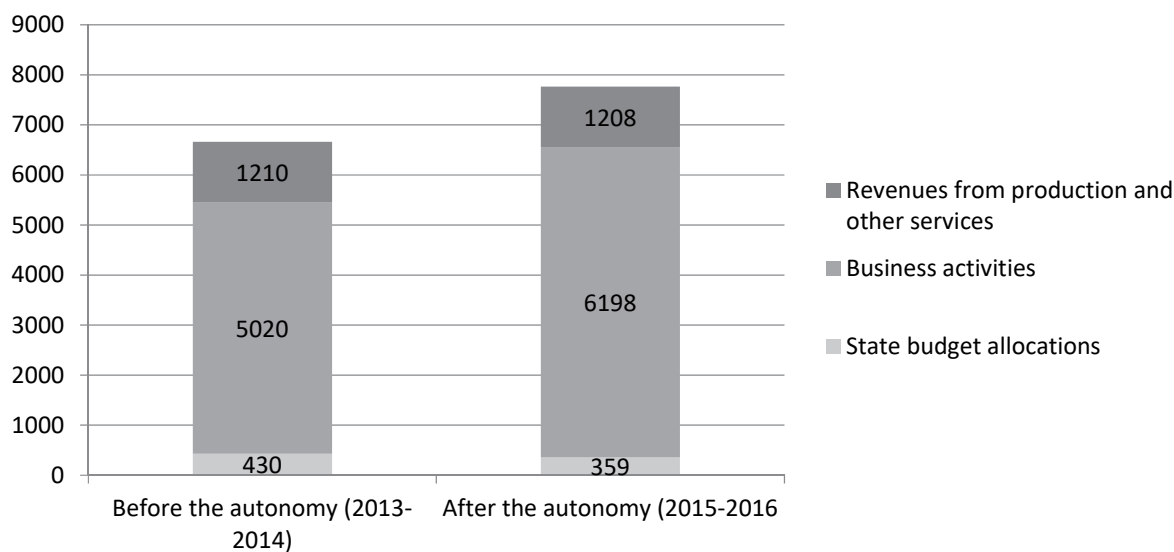
These 10 universities include Academy of Agriculture, Hanoi University, University of Finance - Marketing, Ho Chi Minh City University of Industry, University of Economics Ho Chi Minh City, Ho Chi Minh City Open University, Ton Duc Thang University, National Economics University, Ho Chi Minh City Food Industry University and Electric Power University.

Last but not least, the research analyzed the responses of students on tuition fee increase in order to have some understanding from learner's perspectives. The data gathered by questionnaires is expected to provide some required conditions (especially from the learners) for the tuition fees to be increased. The survey was conducted in three universities including: National Academy of Public Administration, Hanoi University of Science and Technology and Vietnam University of Commerce.

5.4.1 Analysis based on financial reports of universities

5.4.1.1 Revenues

After the autonomous phase in 2015-2016, the total revenue of these 10 universities is VND 7,765 billion (about EUR 291.9 million) (excluding capital construction investment - capital construction) compared to VND 6,660 billion (about EUR 250.3 million) in the period before the autonomy in 2013-2014. It means that the total revenue of these institutions has increased by 16.6% after two years. However, their revenues from State budget allocations for regular and irregular expenditures decreased by 16.51% but revenues from tuition fees, other fees increased by 23.47%. Moreover, revenue from production and business activities (cooperation with foreign institutions, short-term training, consultancy activities, scientific researches, training support services and other services) reduce by 0.17%. The changes in total revenue can be described as below:

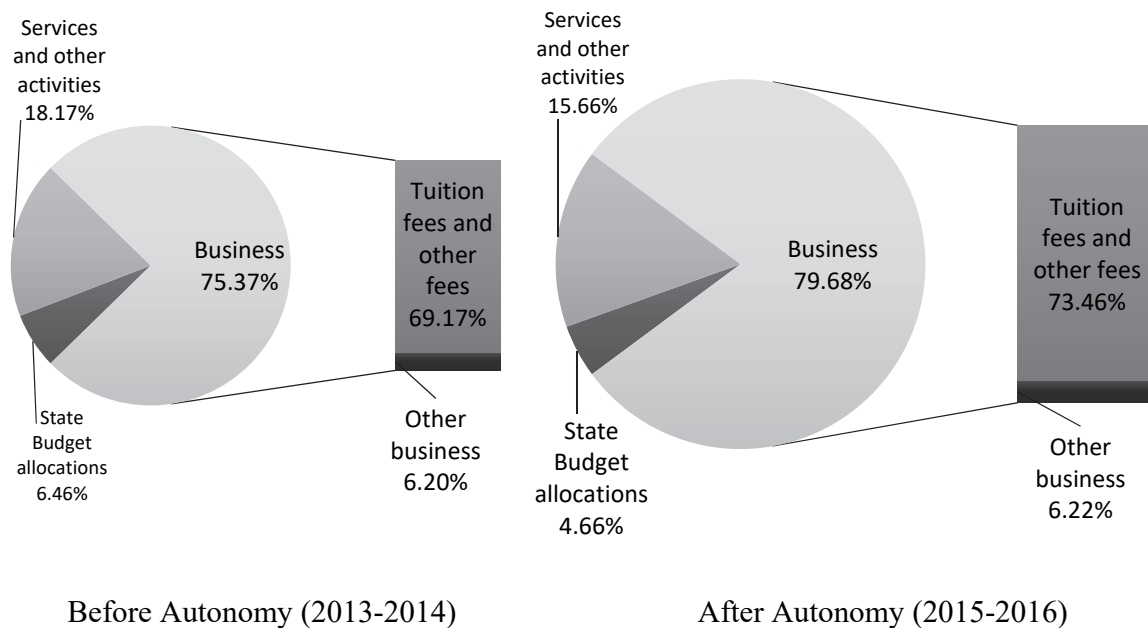


Unit: Billion VND

Source: Author's calculations from financial reports of universities, 2018

Figure 18. Total revenue of 10 universities (in total) before and after the autonomy pilot process

Although the scale of the revenues in these 10 universities has expanded, its structure has not changed significantly before and after autonomy. Revenues from tuition fees and other fees increased by 4.29% compared to the time before autonomy and remained as the main source of income, accounting for over 70% of the total revenues of these institutions. This suggests the fact that the incomes of autonomous universities are still heavily based on their training activities. This issue also contains financial risks because it depends mainly on the scale of training and the tuition fee level. Both factors are still controlled by the State who is responsible for regulating the tuition ceiling and annual enrollment quotas for the whole higher education system. In the long term, it could be detrimental to the quality of training when the enrollment number decreases or the State further reduces their budget allocations.

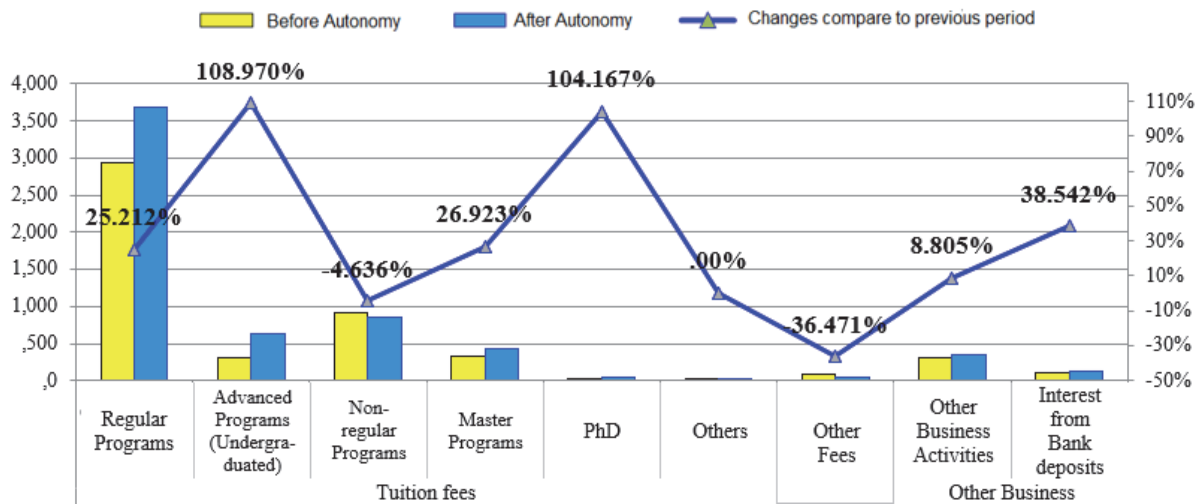


Source: Author's calculations from financial reports of universities, 2018

Figure 19. Total revenue structure of 10 universities (in total) before and after autonomy pilot process

The revenue from business of 10 universities in the case study increased by VND 1,178 billion (about EUR 44.28 million) after two years of autonomy. In which, the proportion from tuition fee increased by VND 1,111 billion (about EUR 41.76 million) equal 24.1% of the previous period. Although the tuition fee level in these universities increased averagely by 40% after the autonomy pilot process, the revenue from tuition fees expanded at a lower rate (24.1% as mentioned above) and income from other fees even dropped by 36.5%. This situation happened because the new tuition fee levels only applied for newly enrolled students while the tuition fee levels for students enrolled in the previous period was not allowed to be increased more than 30% (Resolution No 77/NQ-CP, 2014). Moreover, the total number of students in these institutions also significantly decreased from 460,000 in 2013 to 392,000 in 2016 (14.78%). Furthermore, the increase in revenue from tuition fees also came from advanced – high quality and PhD courses (increase by more than 100%). However, the large reduction in enrollment number deeply eased the revenue from other fees by approximately 36.5%.

On the other hand, the boost in revenue from tuition fees also enhanced the income from interests on bank deposits by 38.54% which equals to VND 38 billion (about EUR 1.43 million). This provided a considerably additional amount of funds for these higher education institutions.



Unit: Billion VND

Source: Author's calculations from financial reports of universities, 2018

Figure 20. Structure of revenue from business of 10 universities (in total) before and after autonomy pilot process

5.4.1.2 Expenditures

The autonomy pilot mechanism has facilitated higher education institutions to be proactive in the preparation of financial plans and budget managements in short-term, medium-term and long-term. These universities were independent in managing and using financial resources to implement the support on the teaching and learning activities, and scientific research as well as ensuring the efficiency of fund usage.

The investigation results show that the total expenditure of 10 autonomous universities after 2 years increased by 11.5%, equivalent to VND 575 billion (about EUR 21.61 million) in 2015-2016 compared to 2013-2014 before the autonomy pilot process. Although the increase did not reach the maximum fee caps (as presented in Table 17), this is understandable as the government of Vietnam planned to give some extra freedom for the autonomy pilot program and all attended universities did not raise their fees to the maximum level. The structure of expenditures

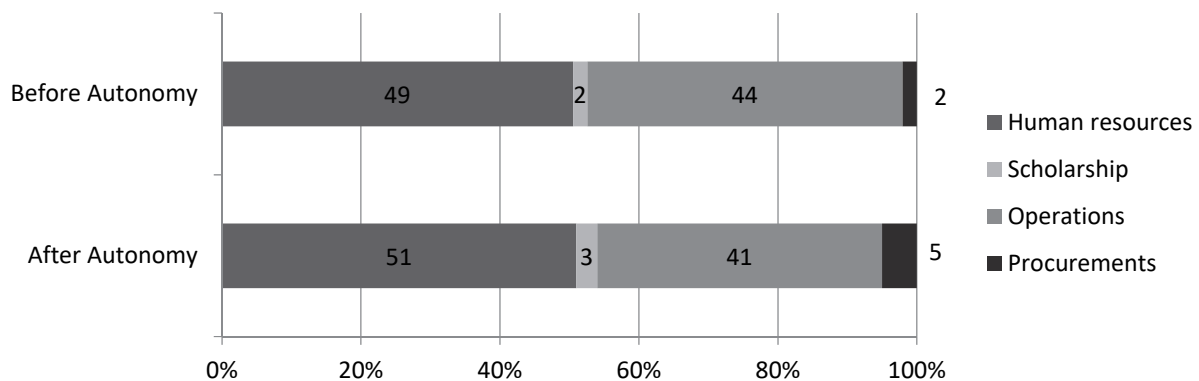
has also changed: spending for service activities has decreased significantly from 18.65% to 16.62%, state budget expenditure has decreased from 7.52% to 6.19%, while the proportion of expenditure for business activities has increased from 73.83% to 77.02% of the total expenditure structure. Highly increased fields of expenditures usually focus on investments, procurement of equipment (by 84.36%) (increase teaching quality), scholarship and other financial supports for students (by 39.33%), grants and aid (by 35.46%) (reduce the inequality), and consulting and scientific research activities (by 33.72%).

Expenditures	Before autonomy (2013-2014)		After autonomy (2015-2016)		Difference (%)
	Value (billion VND)	%	Value (billion VND)	%	
Total	4,986	100	5,561	100	11.53
<i>Expenditures from State budget allocations</i>	375	7.5	344	6.2	-8.35
Recurrent expenditures	208	4.2	238	4.3	14.07
Non-recurrent expenditures	167	3.3	106	1.9	-36.39
Business expenses	3,681	73.8	4,293	77.2	16.63
Human resources	1,828	36.7	2,200	39.6	20.33
Scholarships	98	2.0	137	2.5	39.33
Operation expenses	1,641	32.9	1,747	31.4	6.46
Procurements	114	2.3	210	3.8	84.36
Other expenses	930	18.7	924	16.6	-0.62
Administrative support services	649	13.0	615	11.1	-5.34
Consultant services	66	1.3	88	1.6	33.72
Education support services	172	3.4	163	2.9	-4.97
Donations (Grants and aids for students)	43	0.9	58	1.0	35.46

Source: Author's calculations from financial reports of universities, 2018

Table 17. Total expenditures of 10 universities before and after autonomy process (2013-2014 vs 2015-2016)

The business expenses of the universities are concentrated in 4 main expenditure groups, which are (i) Spent on human resources; (ii) Scholarships for students; (iii) Spent on operations and (iv) Spent on procurements. Compared to before the autonomy period, in general, all expenditure items increased, of which the largest increase was spent on procurements with 84.4%. These expenditures have increased substantially because many institutions were in the process of finalizing large construction works which required a large number of associated equipment, thus the procurement costs had to increase accordingly. In the total expenditure for business, the proportion of spending on procurements, for human resources and scholarships for students increased while the proportion of spending on operations decreased. This decreased proportion of spending on operations was explained by interviewees that the universities which attended the autonomy process were required to provide more regulations on managing their expenses. Therefore, this is a good sign of more efficiency in spending. However, spending on operations along with spending on human resources are still the two largest expenditures, accounting for over 90% of the total expenses.



Source: Author's calculations from financial reports of universities, 2018

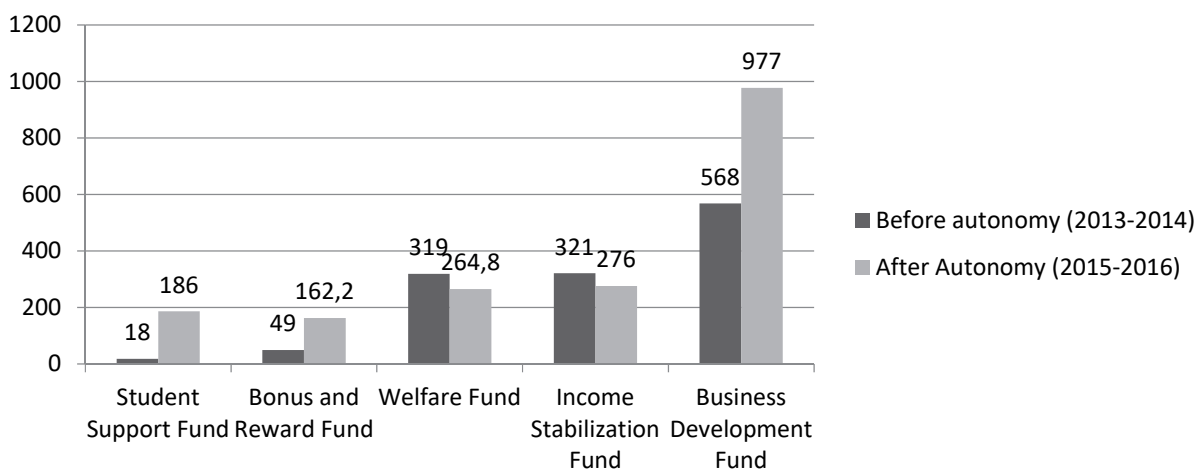
Figure 21. Structure of business expenditures of 10 universities (in average) before and after autonomy pilot process (%)

It can be seen that investigation of reports from universities show positive results, especially in terms of revenue and expenses. This suggests that the autonomy pilot program has allowed participating universities to have more freedom in increasing their fees while also has forced them to be more efficient in spending. Although the author wants to present more detailed

data about each surveyed university, regulations of some universities require the permission from their headmaster or president so the author can publish their financial data. Therefore, the results from this section were presented for 10 universities in average or in total. The next section will present results from annual reports and interviews with members from administrative boards or finance departments of 10 surveyed universities. In which, further detailed impacts of tuition fee increase will be revealed.

Impacts on allocation of funds

In general, the level of budget extraction for funds shall be decided by the specified in the internal spending regulations of each institutions, but still ensure the minimum extraction of 25% from the revenue-expenditure difference for the business operation development fund according to Point a, Clause 1, Article 19 of regulations No 43/2006/ND-CP. In which, this fund is only used for improving business activities; investing in infrastructure, equipment, technology, staff training; contributing capital to joint ventures or association with other organizations. The use of the fund must be decided by the head of the institution. Specifically, the total business development fund of 10 universities in the case study increased from VND 568 billion before autonomy to VND 977 billion in 2015-2016 after autonomy. All the representatives of 10 universities agreed that the autonomy process provided their institutions a significant boost in financial resources.



Source: Author's Calculations from financial reports of universities, 2018

Figure 22. Fund allocation in 10 universities (in total) before and after autonomy pilot process (VND)

The structure of fund allocations in institutions after two years of autonomy also has a strong differentiation. Along with increasing tuition fees under the financial autonomy mechanism and continuing to attract more lecturers as well as students, these universities also appropriated the amount of funds to averagely 45.5% of their revenue-expenditure difference. While their bonus and reward fund, and business development fund increased, welfare fund and income stabilization fund all tended to decrease, the corresponding reduction rate was about -17% and -14%. The interviewees explained that the decrease in these two “security” funds was reasonable. According to their experience, universities in Vietnam in the previous periods had to pay attention to hold these funds to support their lecturers and employees because their average salaries were normally approximate the average income of workers in the economy. Therefore, the institutions usually used these funds to provide further support and rewards for their employees. However, after increasing tuition fees and being more independent in finance, universities were able to pay significantly higher salaries for their employees (averagely 10-20%) so these “security” funds could be narrowed.

Thanks to the new tuition mechanism, schools have more opportunities and resources in implementing scholarship and tuition fee policies (increasing amount and numbers and scholarships) for policy beneficiaries. Specifically, the student support fund increased more than 10 times, from 18 billion VND (about EUR 676,540) before autonomy to 186 billion VND (about EUR 7 million) in 2015-2016, of which was mainly contributed by interests from bank deposits (VND 133 billion – EUR 5 million). This policy contributes significantly to the provision of scholarships and other supports (tuition waivers, accommodation support, etc.) for students in difficult circumstances with good academic results and prevent reducing higher education access of financially disadvantaged students. Some typical schools such as Ho Chi Minh City Open University have compensated the entire tuition fee increased amount for policy beneficiaries and poor students in the academic year 2015-2016 and granted 2,020 scholarships to students. Specifically, this institution extracted VND 12 billion (about EUR 451,000) for their scholarship fund while the corresponding amount was only about VND 300 million (about EUR 11,275) in the previous period; University of Finance and Marketing, in the academic year 2015-2016, set up a student support fund of VND 3 billion (about EUR 112,750) and a scholarship fund of VND 9 billion (about EUR 338,250) (five times higher than in previous period).

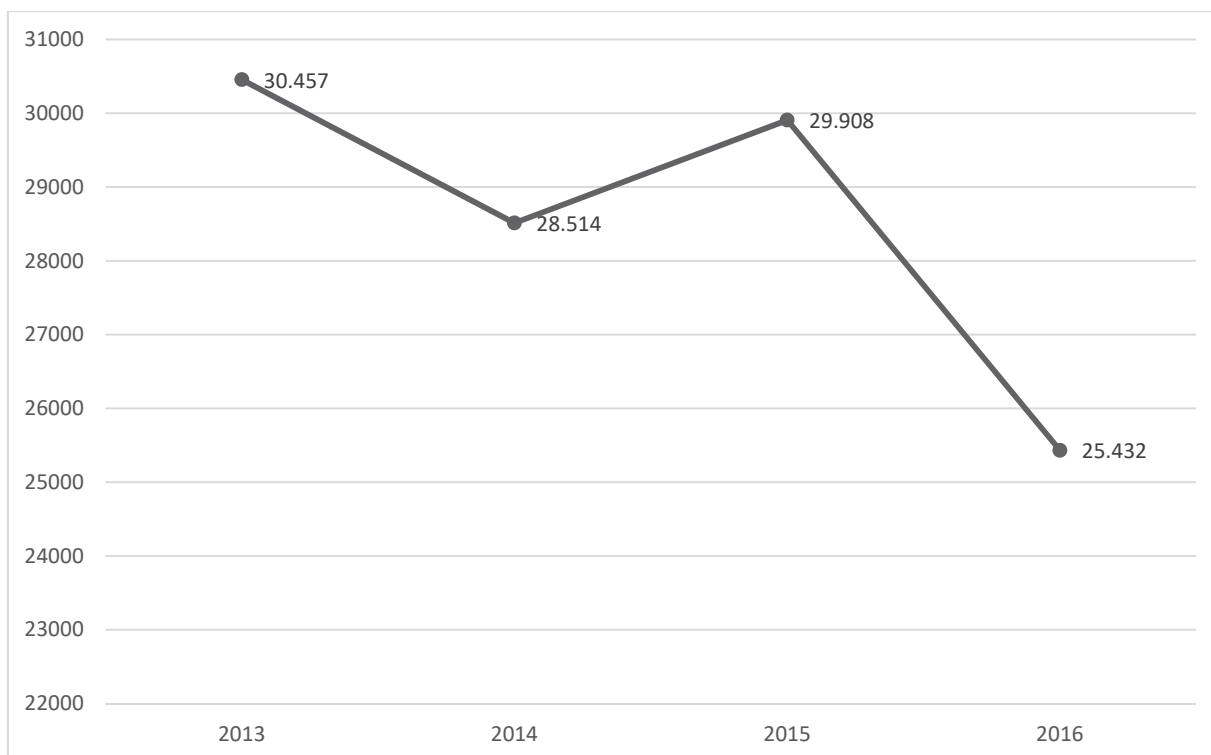
5.4.2 Analysis based on annual reports of universities and responses from interviewees

Impacts on students

Besides reviewing the data from financial reports and annual reports of 10 universities in the case study, the researcher has interviewed 15 members of the administration board or board of financial and planning from these autonomous higher education institutions. All of them agreed that the autonomy pilot plan and the allowed higher tuition fee level provided a significant boost on the financial resource of the institutions. Through this way, they could improve the infrastructure as well as support policies for disadvantaged students.

After 4 years of autonomy, 10 universities increased their land area up to 381 ha (averagely increased by 10%) with 2052 amphitheaters (increased by 325 units); 889 laboratories (increased by 45 units); 42,224 m² of libraries (increased by 15%); 2966 dormitory rooms (increased by about 800 units). Moreover, the number of computers, books, e-books, and other learning equipment also sharply increased.

Enrollment rate of universities, in general, tends to decrease after the autonomy pilot process. Up to 5 out of 10 surveyed autonomous universities reduced the size of students compared to the previous period of autonomy, of which the most was the Ho Chi Minh City University of Economics, National Economics University, University of Finance and Marketing and Vietnam Academy of Agriculture. On the other hand, Ton Duc Thang University, Ho Chi Minh City Open University, Ho Chi Minh City University of Industry and Ho Chi Minh City University of Food Industry. Ho Chi Minh. In response about this situation, interviewees provided some possible causes of this decline are: (i) changing demand for social labor and changing perceptions of the people; (ii) the number of universities increases; (iii) tuition fees of autonomous schools are different and often higher than the general level, which makes students consider more when choosing schools and (iv) the number of regular students of universities is limited at 15,000 students according to the regulation of Circular No. 32/2015/TT-BGDĐT.



Source: Summary from annual reports of universities, 2018

Figure 23. Total number of newly enrolled students in 10 universities before and after autonomy (2013-2016)

The enrollment number of surveyed autonomous universities tends to decrease during the 2013-2016 period. However, there was a similar trend in the national higher education system (as mentioned in the previous section). In addition, the total enrollment number of 10 surveyed institutions even increased in 2015 (immediately after the autonomy pilot) while the total number of enrollments in the system decreased. This suggests that the increase of tuition fees in these 10 universities did not prevent students from entering them. All of the interviewees believed that this trend decrease is a general trend in the Vietnamese system, not due to the impact of the autonomy process or increase in tuition fee.

Almost all university representatives believed that the current tuition fee level is not too high compared to the affordability of students and families. Moreover, the level of tuition fee could be considered as low compared to the potential level income of their students after graduation. The average expected income of graduates in these universities is about VND 8-10 million (about EUR

300-375) per month. Thus, within 1 year after graduation, the students' income could already be higher than the whole amount of tuition fee paid during their study. The interviewed representatives also highlighted that tuition fee is only a part of the students' study costs. Other expenses other than tuition fees such as: costs of learning foreign languages, accommodation rental costs, living expenses, etc. All of these expenses should be a larger financial burden than the tuition fee for many low- or middle-income families.

For questions about students' assessment of the tuition fees currently applied (too high, affordable, or too low), the majority of interviewees answered that their students have no concerns about the tuition fee level. Only the representative of the National Economics University received the learner's opinions about the tuition fee being too high. All of these institutions receive students' opinions through the dialogue between administration boards and students annually; or through activities of classes and Student Union.

To guarantee the benefits of learners, interviewees shared that their universities have implemented several policies to financially support students. Universities have strictly followed the regulations of the State and the Ministry of Education and Training on exemption and reduction of tuition fees for subjects such as students in difficult circumstances; or students from policy beneficiary families; or students who have outstanding performance. In order to achieve the social goal of extending access to higher education for people, these higher education institutions have several forms of student support. For example, there are study encouragement scholarships and the non-State-budget scholarships (Hanoi University). Specifically, in order to support students from financially disadvantaged households, the institutions applied the form of scholarships to encourage study under the form of exemption or reduction of tuition fees (10% minimum) while students with high grades (normally GPA over 8.0/10) could receive scholarship based on their levels of performance. Moreover, representatives of the institutions noted that their administration boards are more and more active in seeking additional scholarships from companies and enterprises in the last few years.

The leaders of surveyed universities also believe that the tuition fee policies should be based on the benefits of learners. However, learners' benefits are not only lower the fee level and reduce the financial burden on students and families. Higher education institutions need to have educational quality assurance measures corresponding to the costs that students and their families

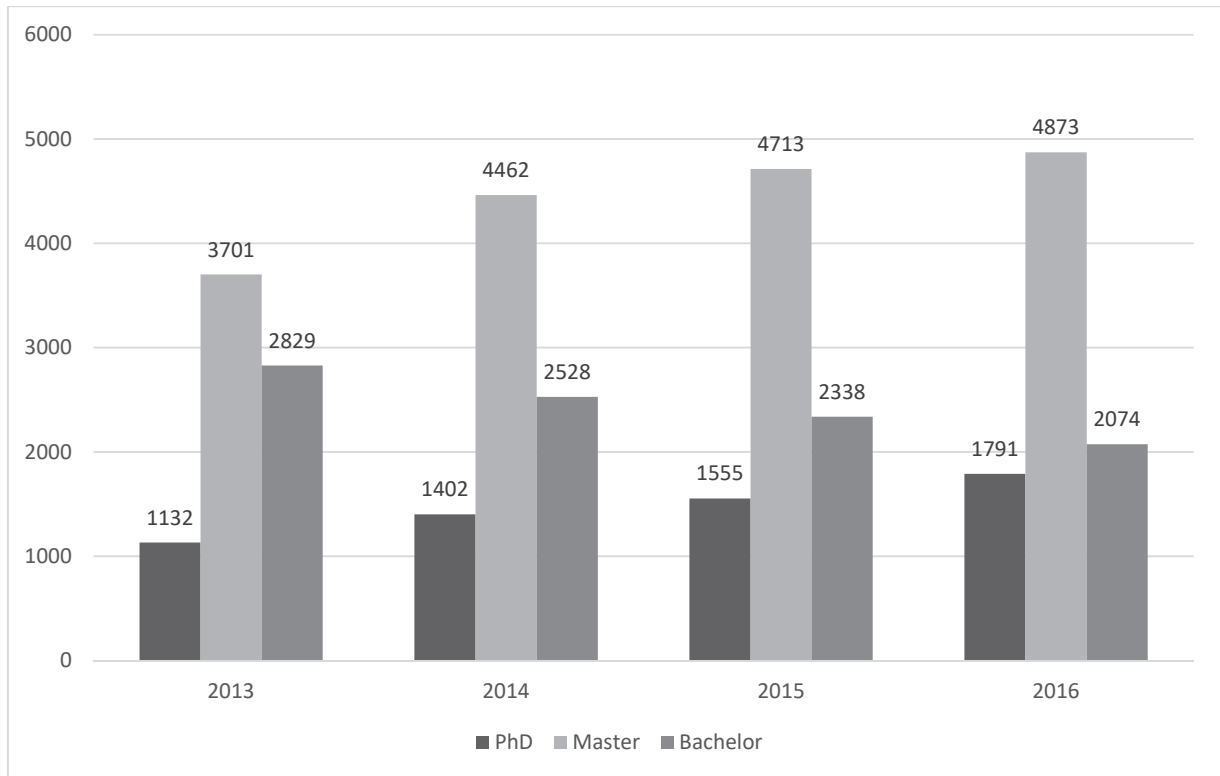
have invested, such as meeting the labor market requirements, or income expectations and the employment of students after graduation. The training quality is the main factor that really brings sustainable and long-term benefits to students. Through advanced and well-prepared training courses, Vietnamese students will be qualified and confident to meet the requirements of the domestic and foreign labor market. However, in order to achieve this level, universities need further support from the State on the policies, mechanism and finance to improve the curriculum, teacher qualifications, learning materials, facilities such as classrooms, laboratories, libraries. Otherwise, the schools will face many difficulties in implementing social objectives and performing the task of improving the quality of training at the same time. In addition, the universities also need to public information on training quality, standards for graduation as well as reporting the collection and usage process of tuition fee to authorized parties for supervision. For high-quality training programs with a low number of students, quality improvement must come along with high costs. However, commitment from training institutions is required that graduates of these programs have sufficient professional and language qualifications to fulfill the demands of labor markets.

Impacts on human resources of the universities

Since the time of being assigned to pilot autonomy, surveyed universities have adjusted their employee structure between lecturers and other staff, towards increasing the number of lecturers, reducing the contingent of experts and staff, focusing on using information technology or outsourcing to increase the operational efficiency of the apparatus. As of July 2017, the number of lecturers accounted for 64.52% of the total workforce of universities, and other experts and staff accounted for 25.48%.

According to the annual reports of the institutions, the number of staff and lecturers with PhD and Master degrees has increased significantly while the number of bachelor's degrees has decreased compared to pre-autonomy stage. The representatives of surveyed universities explained that this positive result comes from the fact that, thanks to the financial boost, they were able to improve the qualifications of their employees by only recruiting lecturers with doctoral degrees and extending working time for lecturers who have high titles and degrees. Some universities have spent higher funding sources to invest in human resource development such as sending their

lecturers to train abroad; recruiting foreign lecturers, experts or specialists; expanding their international cooperation activities, etc.



Source: Summary from annual reports of universities, 2018

Figure 24. Number of lecturers and other staffs of 10 autonomous universities divided by qualifications (2013-2016)

Impacts on funding for scientific researches

Performing scientific research is also an important duty of higher education institutions beside the training activities. Funding for these research are usually contributed by State budget allocations; extraction from tuition and other fees collections; and revenues from other business activities.

After the autonomy pilot process, the State budget allocations in general and State budget distributed for scientific research activities tended to decrease with the largest reduction of nearly 50% at Ho Chi Minh City University of Economics, Electric Power University and National Economics University. The institution with the most funding for scientific research from the State

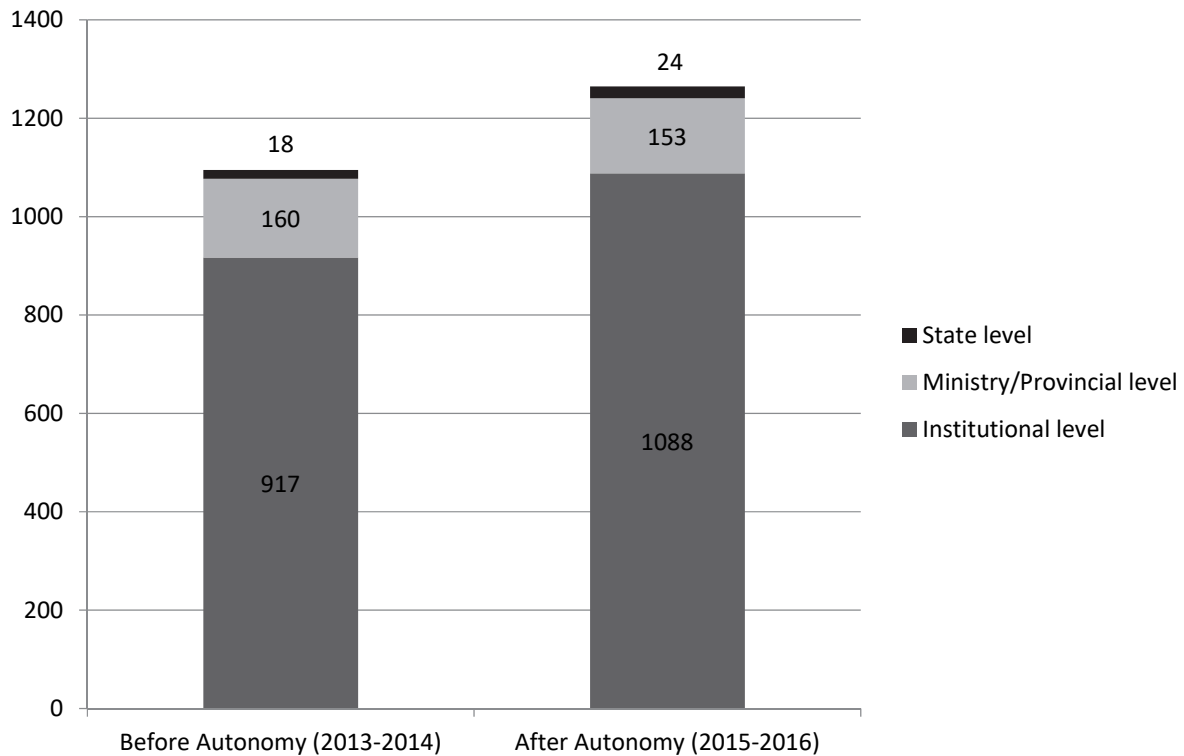
budget is the Academy of Agriculture. In some cases, although the state budget distribution level has decreased, the expenditure for scientific research tends to increase significantly like the Ho Chi Minh City University of Food Industry (increased by 5 times), Vietnam Academy of Agriculture (increased 2 times). This is consistent with the developing orientation in some universities after autonomy.

Revenues from tuition fee, other fees and other business revenues are partially extracted for scientific research activities. This was also a result of an autonomy pilot program where universities were allowed to be more independent in their spending. All the interviewees agreed that higher freedom in fund allocations helped their institutions to use their funds more effectively. Interviewees from Ho Chi Minh City University of Economics, Academy of Agriculture and National Economics University even believed that supporting scientific research activities is also a way to improve teaching quality by supporting lectures and students to have more funds in their research. However, this source of fund was still smaller than the proportion from the State budget. This funding source was mainly focused on supporting scientific research activities of students; reward and support officials and lecturers to publish international newspapers; spending on scientific research for officials and lecturers; spent on scientific conferences and seminars etc.

Unlike the others, some universities spent a relatively large proportion of their funding on research of their students like the Ho Chi Minh City Open University or Ho Chi Minh City University of Economics. In 2016, funding for scientific research of students of Ho Chi Minh City University of Economics even doubled compared to 2013. These two institutions nationally ranked first in terms of organizing scientific conferences and seminars.

Ho Chi Minh City University of Economics is one of the few institutions that prepared a large budget for scientific research of faculty members and this source of funding tended to increase after the school became autonomous. Vietnam Academy of Agriculture also increased funding for scientific research of faculty members after autonomy from nearly 1 billion VND to nearly 2.5 billion VND (from about EUR 375,855 to about EUR 939,638). Meanwhile, there are also two universities that spent a lot on rewarding faculty members and lecturers who had international articles. In 2016, Ho Chi Minh City University of Economics spent 1.2 billion VND (about EUR 451,026) for this activity. The autonomy of universities which included increasing tuition fees provided higher education institutions a larger budget for supporting and rewarding

their scientific researchers included both faculty members and students. As a result, the number of approved scientific projects in these 10 universities increased significantly.



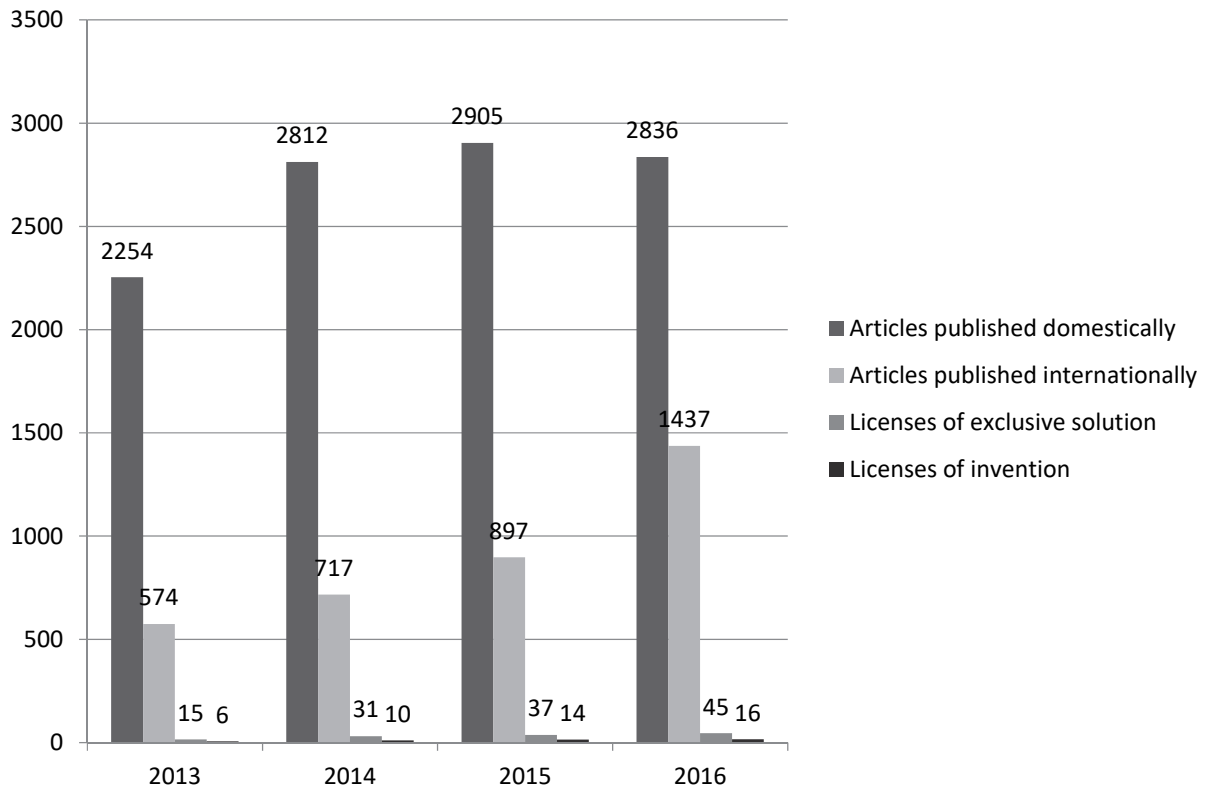
Source: Summary from annual reports of universities, 2018

Figure 25. Number of approved scientific projects in 10 universities before and after autonomy

In Vietnamese higher education institutions, the scientific projects are normally divided into three levels including State level; Ministry/Provincial level; and Institutional level. In which, projects at State level will be partly funded by the State and always have the largest scale of research while Ministry/Provincial level will be partly funded by the related Ministry or Province. Lastly, the Institutional level projects will be funded by the institution and have the smallest scale.

The average annual number of scientific projects is over 500, mainly located at the institutional and the ministry / provincial levels. The number of state-level projects is only about 10-15 projects per year. The responses from interviews agreed that the increase in the number of

institutional-level scientific projects shows the clear orientation in the allocation and usage of the budget for scientific research of these 10 autonomous universities.



Source: Summary from annual reports of universities, 2018

Figure 26. Number of published scientific works in 10 universities before and after autonomy

The number of published scientific works of 10 autonomous schools over 4 years increased significantly in the period 2013-2016, in which the number of articles published in foreign professional journals increased the most (The number of 2016 is almost double that of 2013 - from 574 to 1437 articles). The number of licenses for exclusive solutions or inventions also increased significantly, from 15 in 2013 to 45 in 2016.

The institutions which have a significant increase in the number of published articles after being autonomous were Ho Chi Minh City University of Industry, Ho Chi Minh City University of Economics, Ho Chi Minh City Open University, Ton Duc Thang University and Academy of Agriculture. Especially, the number of articles published in the foreign professional journal of Ton Duc Thang University increased sharply after autonomy from 55 articles in 2013 to 193

articles in 2016. Interviewees from universities who have a high increase in the number of articles published in international journals shared that their universities, thanks to a larger source of funds, were able to provide higher rewards for authors of these articles. When interviewees were asked about the slight decrease in the number of domestically published articles (which only happened in institutions with increase in international articles), they explained that the payments (rewards from universities) for international articles were normally 2-4 times higher than the domestic ones. Therefore, researchers were encouraged to publish their works in international journals. This policy was used in all 10 universities to motivate both lecturers and students to improve their foreign languages and enhance the reputation of the university at the same time.

5.4.3 Analysis on data collected from questionnaires

As mentioned in the Methodology, the research received 1,004 responses for the questionnaires. From the gathered results, the paper can analyze the opinions of learners on the current tuition fee and evaluate factors that might impact the expected tuition fee level of students. First, the opinions of students on their current and expected tuition fee levels might suggest whether a student can accept a higher tuition fee or not and how much it can be. Through this way, the policy makers and public higher education institutions in Vietnam can have some precious information from the perspectives of learners (customers). Second, by using statistical testing methods, the research reveals the factors that can impact the evaluation of students on the appropriateness of the tuition fee levels. This aims to discover the possible requirements for universities to receive acceptances from the side of learners if the tuition fee increases.

Sample description

As the numbers of students from three investigated universities in Hanoi are different, the survey divided the questionnaires according to the student number ratio between them. Specifically, there are 488 responses from Vietnam University of Commerce (49%); 336 responses from Hanoi University of Science and Technology (33%); 180 responses from National Academy of Public Administration (18%). The responses were either collected in author's trip to these institutions or submitted by students through emails.

Table 18. Responses divided by genders

University	Number of responses	Gender	
		Male	Female
National Academy of Public Administration	180	54	126
Hanoi University of Science and Technology	336	285	51
Vietnam University of Commerce	488	220	268
Total	1004	559	445

Source: Author's description

The ratios between two genders among these universities are also different according to the courses they are providing. While Hanoi University of Science and Technology has significantly more male students than female students (about 85%-15%), the ratio is 30%-70% in the National Academy of Public Administration. Vietnam University of Commerce has the most balance ratio with 45%-55%. Generally, the ratio of genders in the total number is not considerably imbalanced with approximately 55% for male side and 45% for female side.

The distribution of students based on their major of study can be summarized as follow:

Table 19. Responses divided by major of study

Major of study	Number of students	Ratio
Economics	488	49%
Technologies	334	33%
Social sciences and Pedagogy	182	18%
Total	1,004	100%

Source: Author's description

Evaluations of students on their current tuition fee

The most common and the average tuition fee level as a student's responses is 4 million VND per semester while the highest tuition fee recorded as 8 million VND per semester. Therefore, this significant dispersion in the sample suggests that there are differences in tuition fee among groups of students or training programs.

Table 20. Evaluations of students on their current tuition fee level

	Number of observations	Percentage (%)
Very appropriate	114	11.4
Appropriate	328	32.6
Neutral	422	42.0
Inappropriate	118	11.8
Very inappropriate	22	2.2
Total	1,004	100.0

Source: Author's description

With 422 responses (42%), “Neutral” is the most common assessment of students on the tuition fee that they are paying. Meanwhile, the second large group of 328 students (32.6%) believe that the tuition fee is appropriate. The numbers of “very appropriate” and “inappropriate” answers are mostly equal with 114 (11.4%) and 118 (11.8%) units respectively. Lastly, only 2.2% of the surveyed students think that their current paying tuition fee is very inappropriate. To sum up, about 86% of the survey students at least feel okay with the tuition fee while only 14% are not comfortable with it. This result theorizes that the current higher education fee is affordable for the majority of students.

Expected tuition fee levels of students

Table 21. Results on expected tuition fee levels

Expected tuition fee (thousand VND per month)	Number of observations	Percentage (%)
Under 600	490	48.8
600 – 800	306	30.5
800 -1000	64	6.4
1000 -1200	26	2.6
1200 -1400	0	0
1400 – 1600	0	0
1600 -1800	2	0.2
1800 – 2000	12	1.2
2000 – 2200	26	2.6
2200 -2400	8	0.8
2400 – 2600	16	1.6
2600 -2800	10	1.0
2800 – 3000	28	2.8
Over 3000	16	1.6
Total	1004	100

Source: Author's description

With the assumption that the lowest expected tuition fee is 600,000 VND and the highest is 3,000,000 VND while the other levels are the average within their range, the average expected tuition fee among 1,004 subjects is about 865,000 VND per month which equals 4,325,000 VND

per semester (1 semester in Vietnam included averagely 5 months of studying and exams). This result is slightly higher than the average current tuition fee level. On the other hand, if the lowest group is assumed as 300,000VND, the average expected tuition fee will be about 720,000 VND per month and 3,600,000 VND per semester. This might suggest that the current average tuition fee of 4,000,000 VND per semester is acceptable among students.

Table 22. Expected tuition fee level versus Appropriateness assessment of students

Expected tuition fee (VND per month)	Response of students on their current tuition fee level			Total
	Appropriate	Neutral	Inappropriate	
<600,000	130 (26.5%)	264 (53.9%)	96 (19.7%)	490
600,000 – 800,000	136 (44.4%)	141 (46.1%)	29 (9.5%)	306
800,001 – 1,000,000	50 (78.4%)	9 (13.7%)	5 (7.8%)	64
1,000,000-2,000,000	32(87.5%)	5 (5.5%)	3 (7.0%)	40
>2,000.000	94	3	7	104
Total	442 (44.0%)	422 (42.0%)	140 (14.0%)	1,004

Source: Author's description

From the survey on viewpoints of students, the tuition fee levels for the academic year of 2017-2018 are assessed as neutral or appropriate for 86% of surveyed students while the other 14% of the students rated it as inappropriate for the courses they are taking. This can be considered as a good sign that the majority of students are at least accepting their current fee levels.

Regarding students who believe that the current tuition fee is inappropriate, 68.1% of them are willing to pay below 600,000 VND per month which is at least 25% lower than the average current tuition fee (800,000 VND). On the other hand, only 15 students who are willing to pay higher than the average current tuition fee think that their current tuition fee is not suitable. This suggests that most of the students who are not satisfied with their current tuition fee want to pay less for their courses.

These results provide an overall understanding of the current tuition fee levels as well as the judgements of students on its appropriateness. Additionally, most of the students are not

negatively responding to the current tuition fee while mostly a half of the surveyed students are willing to pay higher than their current tuition fee level. This suggests that although the tuition fee increase will not be welcomed by all students, there is still room for institutions to increase it if they can satisfy requirements in terms of training quality from students.

Evaluation of factors that impact expected tuition fee level in accordance with viewpoint of learners

In order to build up the list of factors which can impact the expected level of tuition fee, the author has applied the HEDPERF method, a tool to measure service quality in higher education developed by Firdaus (2006). The 3 groups of factors were used to create a regression model as follow:

$$Y = f(F1, F2, F3)$$

In which: Y: Expected tuition fee

F1: Group of factors represents the characteristics of the institution

F2: Group of factors represents the characteristics of learners

F3: Group of factors represents the incomes of learners' families

Firdaus's research shows that there are 06 factors determining service quality of higher education institutions including (i) Administration and management staff, (ii) Lecturers (iii) Reputation of the institution, (iv) Counseling and support, (v) Training contents, (vi) Facilities. In addition, based on the personal experience on higher education in Vietnam, the author added two factors which are (vii) Teaching method (seminar, field trips, videos, etc) and (viii) additional skills (communication skills, presentation skills, teamworking, etc). Applying these results as well as to match the current higher education practice in Vietnam, the thesis has proposed 5 groups of factors which can represent the characteristics of the institutions as follows: (F11) course management – combination of factors (i) and (iv), (F12) quality of lecturers – factor (ii), (F13) quality of training programs – combination of factor (v) and factor (vii), (F14) facilities – factor (vi) and (F15) additional skills – factor (viii). The research eliminated the factor (iii) – Reputation of the institution because there is no official ranking of universities in Vietnam now and theoretically all Vietnamese public higher education institutions are equal in terms of reputation.

The group of factors F2 includes two factors: (F21) The gender of student and (F22) The major of study of students. Last but not least, the factor F3 represents the income level of a student's family. Based on factors mentioned above, the research created some hypothesis as follows:

Hypothesis on factors representing characteristics of the institutions

H₁₁: Better course management create positive impacts to the expected tuition fee level

H₁₂: Higher quality of lecturers create positive impacts to the expected tuition fee level

H₁₃: Higher quality of training program create positive impacts to the expected tuition fee level

H₁₄: Better facilities create positive impacts to the expected tuition fee level

H₁₅: Better additional accumulated skills create positive impacts to the expected tuition fee level

Hypothesis on factors representing characteristics of the learners

H₂₁: There are differences in supporting higher tuition fee level among different majors of study

Regarding the differences in majors of study, some majors such as chemistry, medical services or engineering might require higher study cost (laboratory, experiments, equipment, etc). In addition, majors which are related to finance, laws, economics are also expected to have higher future income than other majors. Therefore, majors of study might be a factor that can influence the level of supporting higher fee from students. In this hypothesis testing, students who chose the expected tuition fee higher than their current tuition fee level will be considered as supporters for tuition fee increase and the rest will be considered as opponents.

Hypothesis on factors representing income level of student's family

H₃₁: Students with financial advantages (family income > average level) have higher support for tuition fee increase than students from lower income group.

This hypothesis clarifies the group of students who potentially can support higher tuition fee levels based on their family income. The sample will be divided into two groups:

- Students who have family income equal or above the average level
- Students who have family income lower than the average level

Table 23. Responses divided by major of study

Major of study	Number of students	Ratio
Economics	488	48.6%
Technology	334	33.3%
Social sciences	87	8.7%
Pedagogy	95	9.4%
Total	1,004	100%

Source: Author's description

Table 24. One-way ANOVA test results (H₂₁)

	Sum of squares	df	Mean Square	F	Sig.
Between groups	42.377	3	14.126	16.619	.005
Within groups	55.876	1,000	0.85		
Total	98.252	1,003			

Source: Author's description

As the Sig. = 0.005 < 5%, the test showed that there is statistically significant difference in supporting tuition fee increase among majors of study. Furthermore, the test also found that the significant difference is between “Technology” and “Social sciences” (sig. = 0.009); “Technology” and “Pedagogy” (sig. = 0.031), in which, the mean of “Technology” group is higher than the other group. This suggests that the students whose major of study is technology tend to be more supportive for tuition fee increase than students who are studying in social sciences and pedagogy.

The result can be considered as reasonable because the cost for technology courses is usually relatively higher than social sciences and pedagogy. These technology courses require larger source of equipment, experiments, laboratory sessions compared to the other two courses. Therefore, the financial resources for these courses should be higher. Moreover, in a quick developing country such as Vietnam, the last few years witnessed a significant expansion of

industries and technology-related companies. Hence, the demand for human resource and payment for employees in this sector are significantly higher than others in the economy. As a result, students who are following this major of study are expecting higher level of future income than students in other two groups. This might be another explanation for their higher support for tuition fee increase. In addition, the result of the survey might be further enhanced if other expensive majors of study such as medical services, laws can be involved.

Analysis on factors representing student’s family income levels

The survey received about one-third of the responses about income of parents as “0”. In some cases, the parents of students retired, and their current salary might be zero. However, as the income of parents is considered as a “sensitive topic” in Vietnam, a significant number of responses have a blank answer in this question. Therefore, the sample in this test was narrowed to 662 units as these “0” answers were eliminated. The results can be described as three tables below.

Table 25. Results from questions about parent’s income

	Income of father (million VND per month)	Income of mother (million VND per month)
Average	5.4	4.7
Mode	2.5	2.5
Standard deviation	5.4	4.6
Minimum value	0	0
Maximum value	32.5	32.5

Source: Author’s description

With the statistics table describing the income level of parents, it is possible to see the difference between income as well as the dispersion in the income of parents though the common income level or the largest and smallest income levels are the same. On average, the father's income is about 5.4 million VND per month while mother's is about 600 - 700 thousand VND lower than that at 4.7 million VND per month. However, the level of income distribution of fathers is also higher than that of mothers and approximates to the average salary (probably because in the

sample, there are cases where parents have reached the retirement age so the income is equal to 0 or students refused to expose income of their parents and caused such large dispersion levels as above).

Table 26. Proportion of students in each group

	Expected tuition fee > Current tuition fee	Expected tuition fee = Current tuition fee	Expected tuition fee < Current tuition fee
Students from lower income group	4%	22%	10%
Students from average and higher income group	16%	44%	4%

Source: Author's description

Table 27. Results of independent sample t-test (H₃₁)

		Levene's Test		t-test for Equality of Means						
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
									Lower	Upper
Support	Equal variances assumed	2.302	.130	-.091	660	.928	-.0048243	.0532046	-.1092950	.0996465
	Equal variances not assumed			-.094	556.972	.925	-.0048243	.0511543	-.1053032	.0956546

Source: Author's description

After using independent sample t-test on H₃₁, the significant levels of are larger than 0.05 (as highlighted in Table 27). This suggests that there is no statistically significant difference in the level of supporting tuition fee increase among students with different family income. However, the result could be biased. The average income level which was calculated from the responses is much lower than the average household's income of Vietnamese. However, the research must use this average level to divide students into two different groups. Therefore, this might lead to an imprecise result.

Although the results on H₃₁ showed a significant level of over 0.05, the author believes that there should be differences among different income levels. Based on the personal understanding of Vietnamese culture of the author, the data gathered from the questionnaires might be not precise because students were not honest about income of their parents which is a sensitive topic in Vietnam.

Analysis on factor representing characteristics of the institutions

As the factors from groups F2 and F3 did not show significant impacts on the expected tuition fee level, it seems that factors from group F1 play a critical role in the judgements of students. Therefore, the regression model could be narrowed as follows:

$$Y = f(F11, F12, F13, F14, F15)$$

The results from the test on SPSS can be summarized as table below:

Table 28. Impacts of factors on expected tuition fee levels of students

	Standardized Coefficient (Beta)	Standard deviation	T test	Level of significance
Blocking factor	650.075	39.691	16.378	0.000
Course management (F11)	21.029	3.026	6.648	0.074
Quality of lecturers (F12)	43.626	2.783	15.677	0.011
Quality of training program (F13)	54.606	27.639	1.976	0.049
Facilities of the institutions (F14)	25.350	2.764	9.202	0.092
Additional accumulated skills (F15)	10.443	2.766	3.781	0.070

Source: Author's description

Based on the results of the test, all five factors have a positive effect on the expected tuition fee level of students (all $\text{Beta} > 0$). However, the levels of impact are not similar among factors. While F12 and F13 significantly affect the expected tuition fee level at 5% level of significance (<0.05), the other three only effect at 10% level of significance (>0.05 and <0.1). By comparing the standardized coefficient (Beta), we can see that the quality of training programs and lecturers (F13 and F12) have considerably higher impacts than other factors.

In summary, if the public higher education institutions in Vietnam seek for the acceptances of students in tuition fee increase, the improvement in quality of lecturers as well as training programs (including teaching methods, training contents, etc) must be ensured. In addition, the institutions also must enhance their facilities and their course management operation. Finally, Vietnamese students also expect to receive more opportunities to practice their additional skills.

5.5 Conclusion

The first section of this chapter described the higher education system of Vietnam in terms of several aspects. By reviewing the historical events, it can be seen that the system has gradually developed along with the progress of the country. The number of institutions and students in Vietnam has been increased significantly in the last few decades and it is expected to be further expanded in the next period in accordance with the national economic growth. Vietnam is currently one of the most explosive economics in the world with the GDP growth of around 6%-7% in the last few years. This economical advantage provides both the resources and demands for enhancing the national higher education system. In addition, the State of Vietnam also paid continuous and considerable efforts to strengthen the system as one of the most important missions to develop the country. However, the limitations and room for improvements still existed. Tuition fee policies are one of the cases. Therefore, the paper might have a chance to figure limitations of the policy and explore the opportunities for further improvements.

The second section discussed the opinions on tuition fee policies from the perspectives of institutions. Thanks to the openness of the interviewees and support of universities, the impacts of autonomy pilot programs were revealed. In which, the tuition fee increases and expansion of financial resources for public higher education played a critical role. After entering the autonomy pilot program and being able to increase tuition fee level, all 10 surveyed institutions showed many

positive signs. In terms of finance, surveyed universities received a significant boost in revenue from tuition fee increase while they were more responsible in controlling their expenses. As a result, all surveyed universities have a larger source of funds to invest in their infrastructure, human resources, training programs, student supports and scientific research. All of these factors showed positive results only two years after autonomy. Although the number of new enrollments was in downward trend, this was a general of the whole system rather than a consequence of tuition fee increasing.

Last but not least, the third section reported the results gathered from questionnaires which were answered by students. Through this section, the most important point of view is estimation on the extra amount of tuition fee that students are willing to pay and required conditions for them to accept it. The report suggests that Vietnamese students consider the training contents and methods is the most critical factor during their decision-making process of accepting increased tuition fee. Specifically, they are willing to pay around 8-9% more if they see significant improvements of training contents and methods. In addition, the overall comments of students on the current tuition fee are acceptable and they could pay more if the knowledge and skills that they receive are considered as worthy.

Based on above information gathered through the case study in Vietnam, the paper can make comparison with lessons from the international cases mentioned in Chapter 4; provide some recommendations on orientation of the tuition fee policy for public higher education institutions in Vietnam in the next chapter.

CHAPTER 6. ORIENTATIONS OF TUITION FEE POLICY FOR VIETNAMESE PUBLIC UNIVERSITIES, RECOMMENDATIONS AND CONDITIONS FOR IMPLEMENTATION

This final chapter seeks for recommendations to enhance the higher education tuition fee policy for the public sector in Vietnam. The first part of this chapter reviews the critical policies which were implemented in Vietnam to reveal the desires of the policymakers for the higher education system. After that, based on results from the case study in Vietnam plus lessons learned from international case studies, the paper suggests a development orientation for the public higher education tuition fee in Vietnam. Finally, the thesis proposes a number of recommendations for the State of Vietnam in order to improve the policies for public higher education tuition fee as well as possible required conditions to implement them.

6.1 Orientations for public higher education tuition fee policy in Vietnam

6.1.1 Reviews on key documents

The State of Vietnam has always paid attention and promoted the role of higher education, considering higher education as one of the fundamental factors for the development of higher education on the socio-economic development of the country. In order to describe the orientation of the State on higher education, the paper reviews some key official documents as follows:

a) Resolution No. 14/2005 / NQ-CP of November 2, 2005 of the Government on basic and comprehensive renovation of Vietnam's higher education in the 2006-2020 period, setting specific goals for higher education system as follows: (1) Complete the nationwide network of higher education institutions; (2) Developing higher education-oriented research programs and career-oriented applications; (3) Expanding the scope of higher education in which about 40% of the total number of students come from non-public higher education institutions; (4) Building a sufficient amount of lecturers and higher education managers with high quality and professional ethics; (5) Clearly raising the scale and efficiency of research activities in higher education institutions; (6) Completing the higher education development policy towards ensuring the autonomy and social responsibility of higher education institutions.

Since 2005, when Vietnam had many positive achievements in terms of economy (e.g GDP per capita and GDP growth rate reached a record of USD 630 and 8.4% respectively) (General

Statistics Office of Vietnam, 2006), the government started to pay further attention to develop higher education. This is reasonable because Vietnam, during this period, began to have higher participation in internationalization and globalization which pushed the competition in Vietnamese economy to escalate and the situation required higher quality of human resources. Enhancing the higher education system could be considered as an appropriate move of the government. Moreover, it should be noted that the government also prepared for the autonomy of higher education (which normally leads to increased tuition fees).

b) Decision 711 / QD-TTg dated June 13, 2012 of the Prime Minister on approving the "Education Development Strategy for the period of 2011-2020", specifying the objectives of higher education are: (1) Improving the system structure vocational and higher education system; (2) Adjusting the structure of training sectors and levels, improving the quality of higher education, meeting the human resource demand for socio-economic development; (3) Trained students have to be sufficient in terms of creative capability, independent thinking, civic responsibility, ethics and occupational skills, foreign language skills, labor discipline, industrial working style, adapting capability to the fluctuations of the labor market; (4) Making Vietnamese graduated students become a competitive part in the international labor market.

The objectives of this decision showed that the government noticed the disadvantaged of graduated students in Vietnam. In addition, the decision also presented a desire to compete in the international labor market of Vietnamese government. However, in order to achieve all of these objectives, a significantly additional source of fund should be required. The "Education Development Strategy for the period of 2011-2020" suggested that the government must raise capital from society including investments from the private economy sector and tuition fees from students. This was reasonable considering the public debt situation of Vietnam in 2012. In 2012, public debt of Vietnam (including debts of public enterprises) was estimated as 95% of the GDP, remarkably higher than the recommended level of the World Bank or IMF (less than 60%) (Nguyen, 2012). In addition, the desire to compete in the international labor market also raised the threat of "brain drain" which happened in many developing countries. Therefore, policies to encourage talents to stay and contribute to the domestic economy must be prepared.

c) Decision 37/2013 / QD-TTg dated June 26, 2013 of the Prime Minister on adjusting the Master Plan for the network of universities and colleges in the 2006-2020 period to more concretize

educational objectives. : By 2020, about 256 students / 10,000 people; about 70% - 80% of university students will be trained in career-application programs and about 30% - 20% of students will be trained in research programs; reach an average of 17 to 26 university and college students / 1 lecturer; The number of lecturers with doctoral degrees in the university is about 21% and this number in colleges is expected to be about 4%.

In order to fundamentally renovate and comprehend higher education, enhancing tuition fee policies is determined by the State as one of the critical tasks. The tuition fee level for higher education is oriented to increase in order to enhance the financial resources of higher education institutions. Through this way, higher education institutions in Vietnam are expected to achieve a higher level of training quality, autonomy, and self-reliance. Moreover, these institutions also must be more independent in terms of their enrollment number, training sector and tuition fee levels (Resolution No. 44 / NQ-CP dated June 9, 2014 and Resolution No. 77 / NQ-CP dated 24 / 10/2014 of the Prime Minister).

Specifically, Resolution No. 44 / NQ-CP of June 9, 2014 emphasized the development of a flexible mechanism and roadmap for tuition fee adjustment, based on the quality and cost of higher education to promote the capabilities of different types of higher education institution (Article 6đ, section II, Resolution 44).

Resolution No. 77 / NQ-CP dated October 24, 2014 of the Prime Minister on piloting the renovation of operation mechanism for public higher education institutions during 2014 - 2017 to allow educational institutions public higher education, when committed to self-financing for all recurrent and investment expenditures, shall exercise autonomy and take full responsibility for it; at the same time decided to increase the preferential loan level for students at autonomous schools.

Resolution 77 above states that universities are allowed to decide the average tuition fee level of the regular program but must ensure a maximum of the State-prescribed tuition ceiling plus regular state budget allocations for every public student in the country. In addition, public universities that exercise financial autonomy are allowed to decide on specific tuition fees (which may be higher or lower than the average tuition fee) for each training major or education program according to learners' needs and the quality of higher education. However, the institutions must ensure that the average tuition fee in a school does not exceed the maximum average tuition fee limit. Universities must officially announce these tuition fee levels to students before their

enrollment. In addition, autonomous universities must develop and implement scholarship policies for excellent students and students who are policy beneficiaries; implement tuition fee exemption and reduction for poor students, policy beneficiaries and support the difference between the State's support level and the school's tuition fee level. In addition, the autonomous universities must distribute their resources to support the accommodation for the financially disadvantaged students by accommodation fee exemption and reduction plus other policies depending on the conditions of each institution.

6.1.2 Discussions on lessons from case studies

By reviewing above official documents, it can be seen that the State of Vietnam clearly supports the increase of tuition fees in higher education as the main additional financial source to improve the quality of public higher education institutions besides attracting investments from the private economy sector. On the other hand, the State also requires higher education institutions to provide improvements in their training quality as well as financial support for their students.

This can be considered as a similar development plan with the Chinese case. In which, public higher education institutions were allowed to be more independent in determining their tuition fee levels. As Vietnam and China have a lot of similarities in terms of socio-economic development and culture, plus China has achieved a certain success with increasing tuition fee in higher education, this orientation could be a safe choice for the State of Vietnam. However, social equality should be questioned in this scenario. Although the financial support required along with the increase of tuition fees seems reasonable in theory, its practical results are not guaranteed. On the other hand, the State budget of Vietnam is heavily burdened in recent years according to the investments on industries and technology. Therefore, cost-sharing in higher education could be helpful in reducing pressure on the State budget. After researching the case study in China, the paper believes that this orientation is suitable for Vietnam now and in near future. By increasing tuition fee and the autonomy of universities, a competitive environment amongst higher education institutions could be created. This should lead to higher training quality and the students, as the customers, will be more proactive in controlling the tuition fees, as the prices of services.

In the case study in the United Kingdoms, higher education is not only a social service but also an industry which provides a considerable income for the nation. However, the author is not convinced that Vietnam should follow this direction because of some reasons. Firstly, compared

to the English higher education system, language is the most obvious disadvantage for Vietnam. It is a barrier for foreigners to choose to take higher education courses in Vietnam. Therefore, the possibilities of getting incomes from international students in Vietnam is significantly lower than further developed countries. Secondly, considering a social service such as higher education as an income source is strongly against the spirit of communism. In which, social welfare such as medical services or education should be free for everyone. As long as the Communist Party of Vietnam administrates the country, any idea of making business in higher education will never be supported.

On the other hand, the case study of the United Kingdom suggests that introduction or increase of tuition fee could bring positive results under some certain circumstances. The current situation in Vietnam has some similarities with the United Kingdom in the 1980s. In which, the economic growth required a skillful labor force. Therefore, the demand for higher education was significantly increased. The lesson from the case of the United Kingdom is: if the government cannot provide sufficient funds in accordance with the escalation in demand for higher education, institutional resources per full-time equivalent student will be decreased (reduce training quality). As the government of Vietnam showed the desires of enhancing the higher education system in both quality and quantity, the only solution is increasing financial resources for the system. Once again, “cost-sharing” between learners and the taxpayers is reasonable. The lesson from the United Kingdom suggests that introduction and increase in tuition fee can solve the financial problems of the higher education system. However, it requires many additional financial support policies for poor students to prevent inequality. By increasing the tuition fee level, Vietnam can expect some positive results such as increase in funding per students, improvements in training quality as the United Kingdom did before but it comes with the risks of enrollment reduction and inequality. In short, the United Kingdom case study proved that an increase in tuition fee might increase the funding and quality of higher education (especially in the short-term) without increasing the financial burden of the State though such privatization-oriented systems cannot be suitable for Vietnam in the long-term.

Nevertheless, in terms of further future, when the Vietnamese economy will grow to a certain point where the State budget is more copious, the orientation could be different. Comparing some advanced higher education systems in the world suggests that a free higher education similar

to Germany might be a reasonable orientation. Germany is a proof of the scenario in which higher education does not need to have tuition fees in order to deliver high quality and equality. However, this system requires a cornucopia of financial resources from the State. Obviously, free education is always a key point in building communist society which Vietnam is exerting to reach. Hence, German model of free tuition higher education should be the finish line for Vietnamese higher education system. Although it requires the State budget to be sufficient to support all students, this model is still practical if Vietnam can maintain the current economic growth.

In addition, the case of Germany suggests the importance of mass media in the implementation of a sensitive policy such as tuition fee for higher education. In order to gain the support from the mass media and the society, the government needs to provide research on tuition fee and its impacts and prove the judiciousness of the policy. Furthermore, the case study also gave the idea on some criteria of an appropriate set-up for the tuition fee system including fees must come along with enhancement in quality and financial assistance for students. Therefore, as tuition fees were implemented in Vietnam and it tends to increase, the government of Vietnam has to make sure that the additional source of funding is directed to improve training quality while further support for financially disadvantaged students must be conducted.

6.2 Recommendations for the State of Vietnam to improve tuition fee in public higher education sector

Firstly, in the short term, the State should implement a plan to adjust the "tuition ceiling". Government Resolution 77 / NQ-CP allows public higher education institutions to be more autonomous than they currently are in all aspects such as enrollment number, training programs and tuition fee. The interviewed representatives of universities claimed that not allowing public universities to decide by themselves the maximum average tuition fee equal to the State-prescribed tuition ceiling is a barrier for universities to develop comprehensively. Due to this tuition fee frame which is low compared to the financial demands of the institutions, all of them must apply their tuition fee equal to the ceiling. Consequently, tuition fees are ranked among all higher education institutions and there is no distinction between high- and low-quality institutions. On the other hand, regarding social equality, there is a possibility in which institutions with high reputation and financial resources can recruit best lecturers and then increase their fees even further. As a result,

only rich people can attend these institutions and enjoy higher quality of education. Therefore, the State should maintain the “tuition ceiling” to protect social equality but its level has to be extended.

Secondly, when being given comprehensive autonomy, public higher education institutions in Vietnam will have to carefully manage their regular expenses such as salaries for lecturers, investment in facilities, etc. In order to maintain the stability of these funds as well as expand their operation, one of the most important factors is that the institutions must ensure stable enrollment numbers. This means that students who act as customers will hold a decisive role to the existence and development of universities. This mechanism is a prerequisite for the formation of an education market in which there is competition between universities by providing higher quality services with reasonable prices to learners. This comes to an issue of assessing the quality of the higher education institutions. Therefore, it is necessary to have an independent authority that is responsible for ranking universities in Vietnam, divided by training courses. The quality assessments from this organization could be used as an important basis for students to find an appropriate university for themselves.

Thirdly, during the "tuition ceiling" applied period, universities can be still allowed to increase tuition fees above the ceiling, and the difference between the actual tuition fee and the tuition fee will be taxed. This might be a first step to create a higher education market in Vietnam, in which tuition fees reflect the prices of educational services, and the State still gets revenue from the difference in tuition tax for further development investments in higher education systems or providing better financial support for financially disadvantaged students.

Fourthly, the tuition fee policy needs to be classified into more sectors of higher education rather than only three sectors in Decree 86 mentioned in Chapter 4. In fact, different groups of subjects have differences in training costs as well as social needs. Moreover, it is necessary to diversify the forms of tuition fee collection to ensure financial resources for universities as well as the payment capabilities of students. Universities should be allowed to implement their tuition fee policy such as upfront tuition fee, deferred tuition fee or dual-track tuition fee.

Fifthly, the State should implement more accreditation activities on universities, encourage independent quality testing and a university ranking system. This will help to limit the asymmetric information gap in the higher education market that means learners can receive full information about the university's training services. Encouraging universities to conduct quality accreditation

by regional and international organizations and associations can help learners receive multi-dimensional and international information on educational services that they will pay for. It also helps Vietnamese universities to attract more learners from other countries in the region, creating further financial resources to improve the training quality. In order to limit the possibilities that the institutions after enrollment do not comply with the commitment of training quality announced to the learners, the State should have a mechanism to monitor the quality of their educational services. The State needs to develop a mechanism of strict inspection and supervision of information on training quality to force universities to provide sufficient information to learners. Specifically, the information must include the contents of the training program, tuition fees, facilities, lecturers, and the proportion of employed graduated students.

Sixthly, the State needs to continue maintaining and improving the policy of tuition fee supports and student loans for financially disadvantaged students. When implementing cost sharing policies between the State and students, it is necessary to develop credit solutions and scholarships to support students, especially students from low-income families. On the other hand, students who have good academic capability, desire to participate at a higher level of higher education in a high-quality university environment, but unable to pay for these costs can use scholarships, grants and credit incentives as solutions to fulfill their needs. These financial supports might contribute to improve educational quality and the social effectiveness of higher education services.

Seventhly, from the viewpoints of learners, it was proved in the data analysis that students will accept higher tuition fee (higher expected tuition fee) if the institution can provide improvements in facilities, course management operation and especially quality of training programs and lecturers. Therefore, it is necessary for institutions to invest their additional source of funds to recruit high quality employees; develop high-quality teaching programs because these two aspects were proved as the two most influential factors in the expected tuition fee level from the perspective of students. Moreover, upgrading facilities and providing friendly, supportive course management services also play important roles in gaining satisfactions of students who are acting as service users. In short, if the public higher education institutions in Vietnam desire to increase their source of funds through tuition fee substantially, they need to present the outstanding characteristics in at least 4 above points to their customers (learners).

Finally, it is necessary to set up a council for examining tuition fees participated by both administrative boards of universities and students. This council can improve the transparency and fairness in tuition fees. Besides, joining the council represents the rights, responsibilities and obligations of students. As a result, the tuition fee level could be more agreed by students.

6.3 Conditions for implementation

With the above recommendations on improving public higher education tuition fee policy, the following conditions might be required:

Firstly, the case study in Vietnam showed several positive results of the autonomy pilot program. In which, the participated institutions proved that they were able to improve significantly thanks to the increase in financial resources. Therefore, the State of Vietnam should continue to encourage, promote and create favorable conditions for public universities to implement financial autonomy. With financial autonomy, the university becomes a provider of high-quality services, accepting competition to survive and develop. Therefore, the public higher education institutions must perform fundamental changes in training contents, teaching methods while considering learners as customers and an important factor affecting the development of the school.

Although some first experiences of autonomy in public higher education institutions in Vietnam are highly appreciated, it is not guaranteed that it can be successful in all institutions, especially in the long run. With the vision of the ultimate model for public higher education which is free (similar to the German model), the autonomy of universities and increasing tuition fee should be considered as a temporary solution to reduce State budget burden while the system is still able to maintain or even improve the training quality. Optimistically, with the improvement in training quality, the human resource of Vietnam also could be enhanced that might lead to further economic development. After that, thanks to economic development, the State budget of Vietnam at some points in the future will be able to cover the whole public higher education system and make it become a free public service.

Secondly, when learners are identified as customers of the institutions, service-providers should focus on customers with appropriate demands and affordability. When developing tuition fee levels for each training major, universities should pay attention to factors affecting the quality of education such as the content of the program, the faculty, teaching methods and facilities. Tuition fees should be set based on factors that students are willing to pay because in the long run,

these factors will not only ensure the interests of the learners but also determine the sustainable development of the institutions.

Thirdly, the school needs to make accountability to the State and learners. Enhancing transparency ensures that institutions must manage their financial resources strictly, avoiding loss and waste. In order to do this, the institutions need to disclose information about their activities, including lecturers, tuition fees, facilities, self-assessment reports, annual reports and reform plans. When all learners have the sufficient information to choose their university, the institutions cannot train without considering the demands of the labor market and cannot apply tuition fees that are not commensurate with the expected quality of training. A university that misrepresents publicly or does not fulfill its stated commitment will not be able to attract students.

Fourthly, institutions should regularly conduct assessments of lecturers and students for the training management department, assessments of students on teaching activities of lecturers, beside enhancing communication with students to timely grasp and solve difficulties in their learning and living process. The feedback from students helps the institutions to have useful information to further fulfill the demands of learners.

6.4 Conclusions

Chapter 5 presents the views on enhancing the policy on public higher education tuition fees in Vietnam. The orientation for the tuition fee policy could be learned from the development of educational systems in other countries. In short terms, with the purpose of reducing the burden on the State budget and improving training quality of higher education, the direction of cost-sharing similar to the case of China should be applied. In which, Vietnamese universities should be encouraged to be more financially autonomous and independent in deciding their tuition fee levels. This will force public universities to be more competitive which is very possible to lead to higher training quality with reasonable tuition fee levels. However, the ultimate goal for higher education tuition fee policy in Vietnam should be a free system which is similar to German system. This scenario is still considered as the best environment for developing human resources and it is unified with the communism and socialism that are applied in Vietnam. Although free higher education might be distant for a developing nation with limited state budget like Vietnam, it is still achievable for Vietnam in the future as the country is performing one of the highest economic growth in the world in recent years.

The second section of the chapter suggests some recommendations for the tuition fee policies in short terms including: (1) the State should implement a roadmap to remove the "tuition ceiling", (2) In the period of applying the "tuition ceiling", universities are still allowed to increase tuition fees will exceed the ceiling, and the difference between the tuition fee and the actual tuition fee will be taxed, (3) The tuition fee policy should be classified into more sectors of training programs, (4) The State of Vietnam should push strong quality accreditation activities for universities, encouraging independent quality accreditation, regional accreditation and university rankings, (5) The State also should continue to maintain and improve the financial supports, student loans for financially disadvantaged students, (vi) It is necessary to set up a council to examine tuition fees at universities.

In order to implement the above recommendations, the thesis proposes a number of necessary conditions. In particular, (1) the State should continue to encourage and create a favorable environment for public universities to implement financial autonomy; (2) institutions should focus on learners as customers with appropriate demands and affordability; (3) institutions need to exercise accountability to the State and learners; (4) Universities have to frequently seek feedbacks from their students.

6.5 Limitations of the research and recommendations for further research

This section of the chapter attempts to highlight some limitations of the study and recommendations for further research. The first part acknowledges weaknesses of this research including design of the research, lack of access to available and/or reliable data, and research sites. The second part of the section proposes suggestions for further potential research.

6.5.1 Limitations of the research

Due to certain limitations, the research findings can not fully convincingly answer the research questions. Firstly, this study only gathers historical experience from only three nations. As the public administrative policies are always different for each country due to variation in terms of socio-economic conditions, cultures, environments, etc. Therefore, by reviewing the historical events without deep understanding on all of these factors, the comparisons and analysis in the research might be biased.

Secondly, the information for the case study in Vietnam was limited by the accessibility of data. The researcher was not able to completely access and specifically publish the financial data

of all surveyed universities due to internal regulations of some institutions. Thus, the data presented in the research must be mentioned in total or average of all 10 institutions based on the calculations of the researcher. In addition, as the time and resource of the research was limited, the private sector must be ignored though it also contributed a crucial role in the system of higher education.

Thirdly, the limitations in language, especially German and Chinese, is also a significant challenge for the research. As a result, the research heavily relied on documents written in English rather than Chinese and German. This led to the fact that a large amount of precious information from researchers who should have better understanding of the Chinese and German higher education system was not accessed.

Last but not least, the research heavily relied on self-reported data of the researcher. This method is constrained as the information cannot be independently verified and might involve some potential biases (Labaree, 2013). However, the research tries to reduce the bias by using more than one source of data (data from 10 different universities and interviews with 15 interviewees).

6.5.2 Recommendations for further research

Based on the above research limitations, some recommendations can be proposed for further study. First, it is necessary to further investigate the socio-economic conditions and cultures of Germany, China, and the United Kingdom in each key historical event of tuition fee policies. Through this way, deeper understandings, comparisons and discussions might be achieved. Moreover, expanding the international experiences into other nations such as the United States, Sweden, Russia also can provide valuable lessons for Vietnam. Second, another case study research in Vietnam can be conducted, but in a longer time framework with the participation of different universities (non-autonomous, private institutions) to create further comprehensive understandings of the situation.

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APPENDIX A: Questionnaires

The survey aimed at collecting learner's point of views on higher education tuition fees at public universities in Vietnam and factors that might impact it. To ensure the truthfulness and value of the questionnaire, please provide some personal information below. Time to answer all questions should be only about 15 to 20 minutes.

We are committed to keeping this information confidential and only use this information for scientific research purposes.

If you have any questions, please send to email address huydangxuan@gmail.com

Sincerely thank you!

* For multiple-choice questions, please circle or tick on the answer of your choice. Note that for each multiple-choices question, please choose only one answer. *

PART A: INFORMATION OF THE CLAIM

A1. Sex

A. Male B. Female

A2. Which university are you studying?

.....
.....

A3. The major you are studying:

A. Technology or Engineering

B. Natural Sciences

C. Social sciences

D. Education

E. Agriculture, forestry and fisheries

F. Medicine or Medical services

G. Economics

H. Arts

PART B: FAMILY INFORMATION

B1. Your father's current employment status:

- A. Having a job B. Self-employed C. Retired and having a pension
D. No income

B2 What is your father's average monthly income (million VND per month)?

- A. <5 B. 5-10 C.> 10-15 D.> 15-20 E.> 20-25
F.> 25-30
G.> 30

B3. Your mother's current employment status:

- A. Working B. Self-employed C. Retired and having a pension D.
No income

B4. What is your mother's average monthly income (million VND per month)?

- A. <5 B. 5-10 C.> 10-15 D.> 15-20 E.> 20-25
F.> 25-30
G.> 30

PART C: INFORMATION ABOUT YOUR TUITION FEE

C1. What is the average tuition fee per semester (5 months) of your university studies (thousand VND per semester)?

.....
C2. Do you think this tuition fee level is appropriate?

- A. Very inappropriate B. Inappropriate C. Neutral D. Appropriate
E. Very Inappropriate

PART D: INFORMATION ABOUT THE EDUCATION PROGRAM YOU ARE STUDYING AND ITS TUITION FEE LEVEL

D1. According to you, with the program you are studying, what is the appropriate tuition fee?

- A. <600 thousand / month
B.> 600 thousand - 800 thousand / month
C.> 800 thousand - 1 million / month
D.> 1 million - 1.2 million / month
E.> 1.2 million - 1.4 million / month
F.> 1.4 million - 1.6 million / month
G.> 1.6 million - 1.8 million / month
H.> 1.8 million - 2 million / month
I.> 2 million- 2.2 million / month
J.> 2.2 million- 2.4 million / month
K.> 2.4 million - 2.6 million / month
L.> 2.6 million - 2.8 million / month
M.> 2.8 million - 3 million / month

N.> 3 million / month

D2. How do you evaluate the importance of course management activities in your expected tuition fee level?

	Very Unimportant	Unimportant	Neutral	Important	Very Important
1. When students have problems, administrative staff are really helpful in support students to solve problems	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
2. Administrative staff always cares and takes good care of students	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
3. Administrative staff show positive attitude to students	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

D3. How do you evaluate the importance of lecturer's quality in your expected tuition fee level?

	Very Unimportant	Unimportant	Neutral	Important	Very Important
1. Lecturers always behave politely	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
2. Lecturers always have a positive attitude towards students	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

3. Lecturers have good pedagogy	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
4. Lecturers always provide feedback on the student's progress in the learning process	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
5. Lecturers have high qualifications	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
6. Lecturers provide sufficient learning materials and resources for students	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
7. Lecturers evaluate and give precise scores	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

D4. How do you evaluate the importance of the quality of training program in your expected tuition fee level?

	Very Unimportant	Unimportant	Neutral	Important	Very Important
1. The course has flexible structure	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
2. The course provides necessary subjects	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
3. Course content is updated frequently	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

4. The balance between theory and practice is reasonable	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
5. Teaching methods are appropriate	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
6. Teaching methods are based on practice	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
7. Teaching methods are modern with application of information and communication technology	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
8. Teaching methods focus on learners	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
9. Teaching methods promote the activeness, initiative and creativity of learners	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

D5. How do you evaluate the importance of the institution's facilities in your expected tuition fee level?

	Very Unimportant	Unimportant	Neutral	Important	Very Important
1. Classrooms make students feel comfortable	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

2. Library has enough seats and space for group working	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
3. Teaching and learning equipment is sufficiently provided	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
4. Facilities are sufficient for cultural, art and sports activities of students (extracurricular activities)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

D5. How do you evaluate the importance of additional accumulated skills in your expected tuition fee level?

	Very Unimportant	Unimportant	Neutral	Important	Very Important
1. The course provides good conditions for students to practice presentation skills	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
2. The course provides good conditions for students to practice communication skills	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
3. The course provides good conditions for students to practice team working	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

4. The course provides opportunities to practice leadership skills	○	○	○	○	○
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THANK YOU SO MUCH FOR PARTICIPATION!

Declaration

Hereby I declare the thesis was established in compliance with the rules of the DFG concerning good scientific practice. I established the thesis without unauthorized help. All used sources and scripts are listed in the catalog of the thesis. All contents taken from the literature are marked. I agree that the thesis can be anonymously sent and saved in electronic form for the purpose of plagiarism comparison.