



ปัจจัยกำหนดทางสังคมและข้อเสนอแนะเชิงนโยบายเพื่อการจัดการที่มีประสิทธิภาพ
ของกองทุนทางการศึกษาของรัฐ: กรณีศึกษาการอาชีวศึกษาไทย

The Social Determinant Factors and Policy Recommendations for an Efficient
Management of State Educational Funding: A Case of Vocational Education
in Thailand

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บทคัดย่อ

การวิจัยนี้มีวัตถุประสงค์เพื่อวิเคราะห์ปัจจัยที่ส่งผลต่อประสิทธิภาพกองทุนเงินให้กู้ยืมเพื่อการศึกษา และเพื่อจัดทำข้อเสนอแนะเชิงนโยบาย โดยใช้ระเบียบวิธีวิจัยเชิงผสมผสานแบบแผนรองรับภายใน กลุ่มตัวอย่างเป็นลูกหนี้ศิษย์เก่าสถาบันการอาชีวศึกษา จำนวน 400 คน ใช้เครื่องมือแบบสอบถามและใช้สถิติถดถอยพหุคูณ และใช้เทคนิคการหักเงาในการสัมภาษณ์เชิงลึกกับผู้ที่ได้รับผลกระทบจากนโยบายจำนวน 10 ราย และวิเคราะห์ข้อมูลโดยการวิเคราะห์เชิงเนื้อหา

ผลการศึกษาพบว่า 1. ปัจจัยที่ส่งผลต่อประสิทธิภาพกองทุนเงินให้กู้ยืมเพื่อการศึกษา (กยศ.) ดังนี้ (1) ระยะเวลาปฏิบัติงานอยู่ระหว่าง 21 ปี-25 ปี (2) เจตคติที่ดีต่อการชำระเงินคืนกองทุนฯ (3) สนับสนุนค่าใช้จ่ายด้านค่าเล่าเรียน (4) ไม่เคยถูกมาตรการทำโทษจากกองทุนฯ (5) การชำระโดยการหักเงินในบัญชีเงินฝาก (6) การชำระผ่านระบบกรุงไทย Tele Bank (7) ไม่มีการรับรองหลักฐานรายได้ครัวเรือน และ (8) สถานศึกษาเป็นแหล่งตรวจสอบคุณสมบัติ และ 2. ข้อเสนอแนะเชิงนโยบายประกอบไปด้วย (1) ปรับปรุงการกำหนดเกณฑ์การคัดเลือกผู้กู้ยืมให้เหมาะสม (2) สนับสนุนกิจกรรม

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สร้างความตระหนักในการชำระเงินคืน (3) มุ่งเน้นไปที่กลุ่มเด็กด้อยโอกาสเป็นสำคัญ (4) เพิ่มศักยภาพของเจ้าหน้าที่แนะแนว (5) สร้างเครือข่ายเรียนรู้ของเจ้าหน้าที่แนะแนว (6) นำระบบฐานภาษีมาใช้ในการจัดเก็บการชำระเงินคืน และ (7) มีการประเมินความสำเร็จในการดำเนินการในรอบปี

คำสำคัญ: การจัดการที่มีประสิทธิภาพ / กองทุนทางการศึกษาของรัฐ / การอาชีวศึกษา

Abstract

This article has two major objectives; to analyze the factors affecting the state's education funding for vocational education, and to provide policy recommendations for a better management. The authors applied the embedded design of mixed method. Four hundred samples from student-borrowers of vocational education were selected from a stratified three-stage cluster sampling. The rating scale questionnaires were employed and the multiple regression was applied for the data analysis. Qualitative research's grassroots technique was later applied through an in-depth interview of 10 student-borrowers of vocational education in Northeastern Thailand. The content analysis was used to assess the results.

Results of the analysis which reflected the empirical evidences of practical conducts in the 10 countries suggested that the efficiency of the student loan scheme were characterized by the following factors, (1) operation time period ranged from 21-25 years, (2) positive attitude towards loan repayment, (3) study expenses supports, (4) an absence of penalty enforced by the Student Loan Fund, (5) loan payment by direct debit, (6) payment via Krung Thai bank's Tele Bank, (7) an absence of certification for household's income, and (8) eligibility assessment by educational institution.

For a sustainable loan fund, this research recommends the following management policies: (1) improve recruitment criteria; (2) conduct training programmes for increasing repayment awareness; (3) prioritize lending for disadvantaged students; (4) enhance knowledge of the vocational institution counselors; (5) establish a strong learning network of the institution's staff; and (6) implement efficient databases for collecting debt through tax repayment system; and (7) involving institutions provide summative evaluation.

KEYWORDS: EFFICIENCY MANAGEMENT / STATE EDUCATIONAL FUNDING / VOCATIONAL EDUCATION

Introduction

The United Nations Educational, Scientific and Cultural Organization (UNESCO) promotes the increasing of educational opportunities for underprivileged children. This advocacy is part and a crucial indicator in the organization's seventeen Sustainable Development Goals (SDGs) of 2030. The fourth SDG is to ensure inclusive and equitable quality education and promote lifelong learning opportunities for all (The United Nations Educational, Scientific and Cultural Organization [UNESCO], 2017b). However, the lack of funding in public education, expensive tuition fees, and other related expenditures for education in some developing countries limit students to access quality education especially in developing countries. The governments' responded to offset this inefficiency through the establishment of educational funding. Unfortunately, this effort was not enough and has shifted the problem from the grant-to-loan to high debt-burden of the program's grantees as well as the state (Johnstone, 2010).

Meanwhile, vocational education significantly develops the industries of the state and across its different economic sectors. In Thailand, the government tries to push forward the increased vocational education enrollment especially in developing skilled-laborers, but this campaign was proven unsuccessful because of the laborer's negative image and how parent's value a skilled worker. Besides, graduates from vocational education are remunerated significantly lower than those who finished general education (Jantori, 2012). Also, a study found that the high drop-out rates in vocational education were results of poverty and job insecurity (Yamyindee, Amdonkroy, & Jaicharad, 2013). Thailand's Student Loan Fund (SLF) reported that its educational loan fund approved 791,353 loaners. Five hundred thousand

seven hundred sixty-five (500,765) were bachelor's degree, representing 63.28%; 174,104 were vocational education, representing 22.00%; and 116,484 were senior high school, representing 14.72 %. This report confirmed the evaluation of Phuangprayong (2011) illustrating the number of approval loan's misappropriations according to the demand for each institution and inadequate with the living expenses of a student.

Although student loan has remained to be an essential instrument of financial aid for underprivileged students, this strategy has become a growing problem and a burden, especially in developing countries (Woodhall, 1992). Thailand's student loans fund used mortgage-type credit. This type of approach is frequently employed in developing countries where its repayment system is a fundamental mechanism driven by fixed repayment rate, interest rate and schedule of repayment, similar to a house and car credit. However, this system has revealed to be incompatible with the new graduate's meager salary and unemployment, especially in the first few years after finishing their academic obligations. Thus creating a much larger burden of debt and consequently imposed with the default rate (Zideman, 2004). As a result, Thailand's student loan fund has indicated problems such as the gap of repayment and the inefficacy of state regulations. Policy implementation has shown limitations in the following: 1) ambiguity of punishment in the none-repayment case; 2) lack of incentive approach for persuading repayments like reducing the interest rate, taxes payment, etc.; and 3) lack of creating employment opportunities for new graduate loaners (Chairat, 2008). All of these contributed to the increasing student loan debt problem of the country in 10 years, from 2007 to 2016.

The issue surrounding the SLF has influenced the strategic management of a household's well-being and individual loaners. Besides, Thai SLF revealed

that the accumulated outstanding debt in 2016 was 271, 650 million baht or 62.39%, 6, 697 million baht or 66.89 % in 2008, 6, 673 million baht or 66.30% in 2007, and 49, 545 million baht, representing 52.39% in 2015. The research study by Aramseriwong, & Nitungkorn (2004) revealed several factors affecting the notoriety of student loan outcomes including 1) unemployment of loaners, 2) lack of efficiency in debt-collection, and 3) the loaner's absence of discipline. The defaulters and the deficient debt-collection of the SLF by educational level. The vocational education loaners are the most striking debtors at 25 percent, followed by the bachelor loaners' 20.02%, and lastly, the high school at 9.56 percent. Therefore, increasing the SLF's efficient management and sustainability is a crucial matter and for which this study plays a significant role.

Objectives

This research aims to; 1) analyze the factors affecting its efficient management, and 2) provide policy recommendations for effective administration.

Conceptual and Approaches

This paper presents an alternative strategic framework from the subsequent ideas:

The efficiency of the Student loan concept by The United Nations Educational, Scientific and Cultural Organization [UNESCO] (2017a)

The UNESCO (2017a) emphasized an educational institution's resources management task in collecting sources to support quality and efficient implementations of its educational services. Woodhall (1983) defined an

efficient student loan as the government's potential to saving cost for support education by applying a private sector interest rate or other strategies for returning the state's capital. She further argued that an efficient management resource must include balancing and reasonably saving the government's budget. Ziderman (2004) revealed the characteristics of a student loan scheme's good practice using indicators reflected on the efficiency variable. The qualities of a good SLF are: 1) clear and specific objectives; 2) flexibility of plans - for example, the shift from a mortgage-type into other forms to improve debt collection and reduce default rate; 3) appropriately decentralized management and policy implementation; 4) reasonably supported by the government; 5) dynamic, relevant, effective and efficient services; 6) proficiently used outsource staff or partner agents in debt collection; 7) reduced default rate or loan burden; and 8) applied efficiency punishment strategies (Ziderman, 2004). Chapman (2016) revealed that efficient student loan principles require an effective mechanism for collecting the debts incurred. Subsequently, inefficient student loan fund considers unreasonable repayment ratio and default rate (Chapman, 2016). In summary, an efficient student loan is comprised of a default rate comparable with the term of payment (Kypuros, 2009) and a reasonable repayment ratio considered after weighing the overall debt and payback amount of the debtor (Ziderman, 2004).

The student loan fund concept

Two decades ago, the student loan fund was established in Thailand's higher educational system in various forms (Woodhall, 2007). The cost-sharing adopted during 1960 and 1970 was heavily focused on the idea that the economic sector will reap great benefits from a productive and well-developed human capital. However, the cost-sharing system suffered an excessive budget

deficit (Johnstone, 1986) and eventually terminated. The government also adopted a conventional student loan, a mortgage type of loan. Meanwhile, in Australia, an income contingent student loan was first implemented and named the Higher Education Contribution Scheme or HECS in 1980. This system flourished and ultimately improved in 1989 distinguished mainly on how the national tax collecting bureau becomes its arm in debt collection.

In 1992, the influence of New Zealand's loan policy provided Thailand three types of student loan funds framework (Woodhall, 2007). The 1) mortgage-type loans for financially challenged students with fixed repayment and interest rate, and schedule aims to collect the debt timely. But this scheme creates loan burdens among new graduates due to their low-income and unemployment which ends up to the default rate problem (Ziderman, 2004). The 2) income-contingent student loan is the approach widely used in developed countries and recognized as the most efficient. Its fundamental mechanism is a repayment regulation depending on the individual's income condition ratio, thus allowing staff to access some of their personal information such as income and tax database (Ziderman, 2004). This approach was also criticized heavily for its lack of long term proper payback schedule (Chapman, 2006). Chapman (2014) criticized this type because of its inability to address the issues on a) risk management and market failure; b) inefficient granting of default protection; c) deficient valuation; d) incompetent tax collection agencies (Chapman, 2014). And finally, the 3) hybrid fixed-schedule-income contingency approach which combines the fixed schedule repayment and payback system based on the loanee's income rate. However, the inability to pay timely will create a huge impact especially if an economic crisis will occur or an extended period of joblessness which is prevalent in developing countries (Johnstone, 2009).

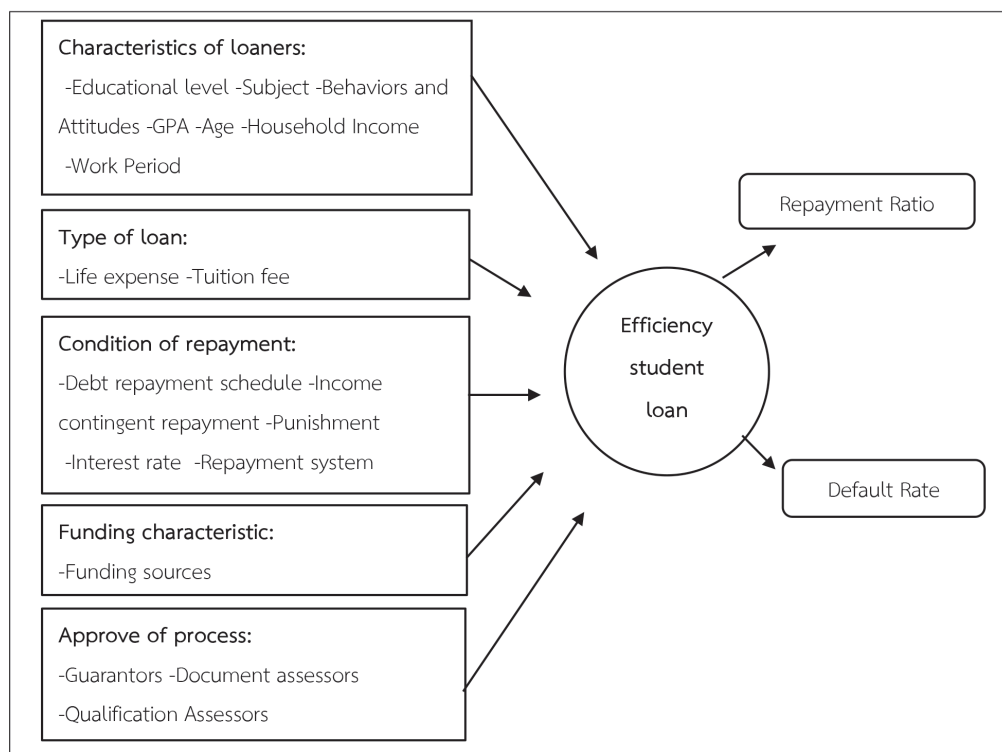


Figure 1 The conceptual framework derived from a literature review's ten models of the good practice of student loans and the efficiency of the student loan concepts.

Methodology

Mixed method of embedded design (Creswell, 2009) was applied as the research method. Quantitative research was adopted by using questionnaire survey and multiple regression analysis, and qualitative research was applied by using the grassroots technique as well as content analysis. First, a sample of four hundred individuals was selected from a stratified three-stage cluster sampling. For the initial phase, the rating scale questionnaires were employed and the multiple regression with the stepwise method was later applied to interpret the data collected. Then, for the qualitative part, ten key informants from these five groups of vocational education in the Northeastern region of Thailand were selected using the following inclusive criteria of SLF alumni

from both public and private institutions: 1) avoided at least a year of payment, 2) employed for at least one year, 3) penalized, e.g. light fines, heavy punishment of 12% interest rate, litigation, debt restructure and the enforcement of detention, 4) vocational certificate holder and, 5) higher vocational certificate holder. These key informants were in-depth interviewed following interview guidelines. Finally, content analysis was utilized to decipher the qualitative data collected from this interview.

Finding

1) Social determinant factors affecting the efficient management of educational funding for vocational education

This study found two major criteria affected by the lack of efficient management of the educational funding for vocational education in Thailand.

The first is the repayment rates.

The numerical value of less than 5 in the Variance Inflation Factors (VIF) indicates that its independent variables are not apparent and are in multicollinearity problem.

Table 1 Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
6	.469	.220	.208	.606

The predictors (constant) for this table are the following; qualification assessment by institutions (X_{19_2}), assessed documents by a village headman (X_{18_2}), never been punished (X_{13_1}), hotel and tourism programme (X_{5_11}), court-seized property (X_{13_4}), real interest rates (X_{14_4})

Table 1 exhibits all independent variables in the equation and its associated variation of dependent variables at 22.0 %.

Table 2 Analysis of Variance (ANOVA)

SOV	Sum of Squares	df	Mean Square	F	P-Value
Regression	40.561	6	6.760	18.431	< .000
Residual	144.149	393	.367		
Total	184.710	399			

Table 2 shows the variance for the testing coefficient of multiple correlations with $F = 18.431$. A P -Value less than ($<$) 0.000 concludes that there exists enough evidence to assume that at least one of the terms of its multiple linear regression with stepwise selection method is useful for predicting dependent variables at P -Value = 0.01.

Table 3 The Coefficients

Variables	b	Std. Error	β	t	P-Value	VIF
Qualification assessment by institutions (X_{19_2})	.456	.073	.291	6.253	<.000**	1.090
Assessed documents by a village headman (X_{18_2})	-.384	.064	-.271	-6.003	<.000**	1.029
Never been punished (X_{13_1})	.293	.078	.174	3.751	<.000**	1.078
Hotel and Tourism programme (X_{5_11})	-.966	.357	-.123	-2.706	.007**	1.035
Court-seized property (X_{13_4})	.665	.286	.109	2.325	.021*	1.100
Real interest rate (X_{14_4})	-.224	.101	-.101	-2.226	.027*	1.039
(Constant)	2.057	.098		20.959	.000	-

Note. * $\alpha = 0.05$, ** $\alpha = 0.01$

Table 3 exhibits the independent variables significantly influencing the repayment ratio at (Y) P -Value less than 0. 05 from six significant

variables. Three variables were affected positively, namely; qualification assessment by institutions (X_{19_2}), never been punished (X_{13_1}), and seized property by the court (X_{13_4}). Whereas, the remaining three were affected negatively including assessed documents by a village headman (X_{18_2}), Hotel and Tourism programme (X_{5_11}), and real interest rate (X_{14_4}).

The second social determinant factors affected is the default rate.

The same indicator, the Variance Inflation Factors' (VIF) numerical value of less than 5 indicates that its independent variables are not apparent and are in multicollinearity problem.

Table 4 Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
14	.549	.302	.276	.572

The predictors (constants) used for this research are the qualification assessment by institutions (X_{19_2}), assessing documents by a village headman (X_{18_2}), fine (X_{13_2}), behaviors (X_6), guarantee by parents (X_{17_2}), attitude to student loan (X_7), debit a sum to an account (X_{15_4}), payback by Tele Banking (1551) (X_{15_7}), tuition fee (X_{11_2}), work period 21 year until 25 year (X_{3-5}), grade point average (GPA) (X_8), Retail Business Programme (X_{5_20}), never been gotten document assessment (X_{18_1}), never been gotten qualification assessment by institutions (X_{19_1})

Table 4 exhibits all of the independent variables in the equation's association and variation of the dependent variable of 30.2 %.

Table 5 Analysis of Variance (ANOVA)

SOV	Sum of Squares	df	Mean Square	F	P-Value
Regression	54.437	14	3.888	11.881	< .000
Residual	126.003	385	.327		
Total	180.440	399			

Table 5 exhibits the variance for testing the coefficient of multiple correlations at $F = 11.881$. The P-Value of less than ($<$) 0 .000 concludes that there exists enough evidence, at least one of the terms of multiple linear regression with stepwise selection method, for predicting dependent variable at the P -value 0.01.

Table 6 The Coefficients

Variables	b	Std. Error	β	t	P-Value	VIF
Qualification assessment by institutions (X_{19_2})	.332	.082	.214	4.026	< .000**	1.556
Assesing documents by a village headman (X_{18_2})	-.188	.067	-.134	-2.814	.005**	1.250
Fine (X_{13_2})	-.491	.115	-.187	-4.280	< .000**	1.047
Behaviors (X_6)	-.022	.005	-.251	-4.677	< .000**	1.582
Guarantee by parents (X_{17_2})	-.218	.078	-.135	-2.805	.005**	1.279
Attitude to student loan (X_7)	.020	.005	.204	3.972	< .000**	1.449
Debit a sum to an account (X_{15_4})	.492	.145	.148	3.388	.001**	1.051
Pay back by Tele Bank (1551) (X_{15_7})	.479	.144	.148	3.336	.001**	1.084
Tuition fee (X_{11_2})	.251	.077	.149	3.284	.001**	1.134
Work period 21 years until 25 years (X_{3-5})	.932	.338	.120	2.754	.006**	1.042
Grade point average (GPA) (X_8)	.075	.032	.101	2.313	.021*	1.057
Retail business programe (X_{5_20})	-.689	.305	-.102	-2.260	.024*	1.125
Never been gotten document assessment (X_{18_1})	.393	.138	.152	2.840	.005*	1.574
Never been gotten qualification assessment by institutions (X_{19_1})	-.340	.133	-.145	-2.559	.011*	1.768
(Constant)	1.941	.253		7.664	.000	-

Note. * $\alpha = 0.05$, ** $\alpha = 0.01$

Table 6 exhibits the independent variables significantly influencing the default rates of P-Value less than 0.05 in fourteen significant variables. Eight of them were positively affected, namely; qualification assessment by institutions (X_{19-2}), attitude to student loan (X_7), debit a sum to an account (X_{15-4}), payback by Tele Banking (1551) (X_{15-7}), tuition fee (X_{11-2}), work period 21 years until 25 years (X_{3-5}), grade point average (GPA) (X_8), and never been gotten documents assessment (X_{18-1}) and the remaining were affected negatively including assessing documents by a village headman (X_{18-2}), fine (X_{13-2}), behaviors (X_6), guarantee by parents (X_{17-2}), Retail Business programme (X_{5-20}), and never been gotten qualification assessment by institutions (X_{19-1}).

2) Policy recommendations

Based on the findings of this research, the authors propose practical recommendations. First is the revision of recruitment criteria, such as increasing the Grade Point Average (GPA) to more than 2.0. This helps improving the reduction of the borrowers' drop-out risk during the learning period, significantly increase the alumni's chance to land an opportunity with better compensation, and thus a higher possibility of repayment (Talasophon, 2011). Also, the state should prescribe a higher interest rate based on the country's annual 2-5 % per year inflation rate or a 4-5% per annum which should only benefit students who are in real poverty (Patmasiriwat, 2009) instead of the current one percent (1%).

Secondly, student loan should strictly follow the socio-economic contexts by dividing the type of borrowers into different groups such as the unemployed and low-income household (Tantipisanu & Jesdapipat, 2013). Furthermore, establishing a network's connectivity for sharing information of the defaulters' data in promoting successful risk assessment, lending, and

tracking of debts among institutions, lenders, and employers.

Thirdly, to reduce the high probability for would-be-defaulters is for Student Loan Fund (SLF) to adopt pre-defined subject areas or programmes to set the appropriate quality of vocational institutions and match the demand in the labor market (Lounkaew, 2016; Talasophon, 2011). Additionally, the organization should allocate a lending quota for each institution based upon its repayment ratio in the last five years.

The fourth recommendation is by increasing the potential for vocational institutions to develop more efficient lending services, sharing an institution's good-practice processes, extending social volunteering projects, and efficiently screening borrowers in various criteria. Moreover, educational institution staff, especially its guidance councilors, should promote quality and adequate services to establish a strong learning network and abreast with the current trends and regulation surrounding the SLF.

Fifth, the student loan and vocational institution must support a training programme for cultivating social responsibility, ethics and attitude among borrowers in the efforts to reducing defaulters especially those who think that educational debt is less important than other debts (Lueangwongngam, 2015; Tirasriwat, 2016). Furthermore, the organization must periodically measure its loaners' attitude in repayment awareness assessing them based on their social engagement and volunteerism.

The sixth recommendation is the application of systematic databases for collecting debt through tax repayment system relevant to the loaners' revenue which is less than five thousand baht per year or as relevant in relation to their income as practiced in Australia, New Zealand, England, etc. (Chapman, 2016). Moreover, collecting agencies may be more innovative

by developing and exploring repayment methods via mobile phone applications, internet banking, counter services in 7-Eleven stores or similar convenient outlets, and other variety of channels (Aramseriwong & Nitungkorn, 2004).

Lastly, SLF should provide a summative evaluation for efficient monitoring of its target. Beyond focusing on repayment ratio, the organization must publicly recognize its student role models, praise their achievements, and highlight their success stories.

Discussions and conclusion

The effective lending process for the bridge gap in the state's educational funding for vocational education may improve its efficient management by stipulating a Grade Point Average (GPA) for increasing the borrower's learning quality. Educational lending should also eliminate the lending practice of guarantee-signatures. Currently, parents affix their signature as co-warrantors to avail this educational loan. This educational initiative has more essential objectives of financially supporting its needy students compared to commercial bank lending (Ziderman, 2004). Additionally, SLF guarantors, when their grantees are nowhere to find, were prosecuted in courts and had their properties seized. Thus, making it even more difficult to find one (Engchanil, 2018, August 20). The acquired debts and social tension caused by these students' loan may also be resolved through properly mitigating, tracking, and revising appropriate repayment periods, such as in period of the alumni's working-age of 21-25 years old and a complete payment in a period of 20 years, or an extended repayment time from 15 years into lifelong repayment (Patmasiriwat, 2009; Talasophon, 2011). This repayment scheme, followed by Australia's student loan, would benefit

those who graduated and started their work-life in low income or had financial challenges during those times (Migali, 2012).

This article highlighted those policy recommendations which should be integrated with the student loan policy to enable and full-fill the gap of conventional policy implementation and transforming into the demand side of vocational education loaners or so-called policy bottom-up approach. This method may help resolve the issues surrounding the changes in the social context, and the lack of comprehension of the socio-economics of vocational education loaners and the local actors will have more chance to be involved in its implementation (Sabatier,1986). This article concludes with the lessons learned from the good practices of different student loan models and the bottom up policy. Especially highlighted here is the efficient management of Australia's student loan model, the Higher Education Contribution Scheme (HECS), introduced by Bruce Chapman in 1988, has the smallest default among other models. Changes include concepts and practices; therefore, the state's first step is to focus on its risk management to avoid the high risk of failure in the free market. Second is its default protection which tests the model's efficiency. Thirdly, by reducing the adverse selection of the borrower by assessing their social engagements and eventual change of attitude which devaluates the purposive value of the program. And finally, the implementation of a tax repayment system organization as its vehicle or institution for debt repayment (Chapman, 2014).

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