

DETERMINANTS OF BORROWER'S INTENTION TO REPAY THE EDUCATIONAL LOAN (PTPTN): PLS-SEM METHOD

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Abstract: Educational loan is an alternative financial assistance provided by the government to reduce the economic burden of students at tertiary level throughout their studies. In view of the increasing number of students obtaining educational loans, the issue of default in loan repayment is undoubtedly subjected to research attention. This study investigates the determinants of borrower's intention to repay PTPTN loan. Using questionnaire and partial least squares (PLS) structural equation model, this study examines the relationship between roles of media, human interaction, and attitude of borrower and repayment alternatives that influence the borrowers' intention to repay the loan. The results show that borrower's attitude, awareness from media and repayment alternatives influence the borrower's intention to repay PTPTN loan. The results obtained from this research hopefully will help PTPTN and policymakers to develop better strategies to ensure the repayment conditions would not become a burden to both government and the public.

Keywords: Education Loan Repayment, Attitudinal Influence, and Behavioural Intention.

Introduction

Higher education is a pivotal drive for many school leavers as a next step upon completing secondary education. Even though with options aplenty of the colleges and universities to choose from, a substantial number of students that are predominantly from lower income family backgrounds may carry financial burdens or obligations when it comes to the cost of education. The government has implemented various financial assistances such as educational loans to

reduce the economic burden on students at tertiary level. As soon as students start to enrol in higher education institutions, they will obtain educational loans to pay tuition fees and living expenses. In view of the increasing number of students obtaining educational loans from government agencies, concerns regarding loan repayment have also increased as loan default is undoubtedly a growing problem which leads to high research attention in the past decades (Ismail, 2011). Moreover, Subashini and Duraisamy (2016) revealed that educational loan repayment is an issue which has been frequently discussed in the mainstream media. Furthermore, according to Dillon and Smiles (2010), the occurrence of economic downturn and a tight job market increase the difficulty of borrowers to make repayment.

The National Higher Educational Fund Corporation (also known as Perbadanan Tabung Pendidikan Tinggi Nasional or PTPTN) was formed in 1997 by the Malaysian government to distribute loans to local students who study at polytechnics as well as public or private tertiary education institutions. Borrowers who graduated with 1st class honours received a waiver of PTPTN loans from 2015 onwards. Over the past decade, a tremendous increase in the approval of loan applications was observed, from 88,372 in 2000 to 193,922 in 2015 (Ong, Jonathan, Chew and Dickson, 2016).

Repayment of educational loans has recently gone up, but it still remains a major problem for Malaysia which makes Malaysia one of 70 countries that suffer from a high educational loan default rate (Ismail, 2011). Since the formation of PTPTN in November 1997, 2,668,966 Malaysian students have taken PTPTN loans, amounting to RM49.65 billion as of March 2017 (The Star Online, 2017). However, according to Malay Mail Online (2017), only 312,068 PTPTN borrowers had negotiated with PTPTN and started paying back their loans amounting to RM967.9 million. In the meanwhile, Immigration Department also blacklisted 586,863 PTPTN borrowers with an outstanding amount of RM11.6 billion as at 31st January 2017. These PTPTN defaulters are barred from travelling overseas.

In a study conducted by Abu, Masud and Jusoh (2006), they indicated that borrowers' intention to repay educational loan is still an interesting topic for further investigation as borrowers' willingness is more important than their abilities to make repayment. This statement is also supported by Volkwein and Szelest (1995). Ismail, Singh and Sahiq (2012) further added that if policy makers over-estimate or make overly optimistic assumptions of borrowers' willingness to repay, it may cause the whole educational loan scheme to be misplaced and goal unachieved. Hence, it is imperative to study the borrowers' intention to make repayment and the underlying factors.

This research aims to examine the relationship between the roles of media, human interaction, and attitude of borrower and repayment alternatives that influence Malaysian borrowers' intention to repay loans, by distributing questionnaires to educational loan borrowers from all states in Malaysia. The results of this study are useful for policy makers to design a better loan repayment scheme by knowing the factors that influence borrowers' intention to make repayment. Policy makers can also carry out a series of corrective actions to boost loan repayment rate among Malaysian borrowers once they understand the reasons behind low repayment intention. Consequently, higher loan repayment rate could be observed and thus, more funds could be lent to local students to enrol in tertiary education institutions. Other than

that, this study serves as a reference for academicians who intend to conduct similar research in the context of other countries.

The research objectives are stated as below:

To examine the relationship between awareness from media and borrower's intention to repay education loan.

To examine the relationship between human interaction and borrower's intention to repay education loan.

To examine the relationship between attitude of borrower and borrower's intention to repay education loan.

This study is organized in the following manner. The next section includes a comprehensive review of existing literature on awareness by media, human interaction, attitude and repayment alternatives towards intention of repayment of education loan. Section 3 describes the details of the questionnaire, procedures of data collection, sample selection and data analysis method. Section 4 reports the findings, followed by a section that concludes the study.

Literature Review

There are various factors that can influence the intention to repay educational loans. The awareness created by media, human interaction, attitudes of the borrowers and alternatives on loan repayment are some of the main factors.

Intention to Repay the Loan

Education loan is the main source of financing among college and university students. A study by Hira, Anderson and Peterson (2000) found that more than half of the respondents stated educational loan helps them to have a better life. In the same study, those students who are unable to estimate their total debt are more concern about their debt repayment. They also believe that the size of the borrowed loan will influence their decision to purchase new car, married and had children. Some studies in the U.S. also found that students have little knowledge on certain aspects regarding their loan (Hira et al., 2000). According to Ajzen (1991), in order to predict the actual behaviour, intention can be one of the factors. For instance, students that have a positive evaluation of loan repayment will have a greater intention to repay their loan.

Awareness Created by Media

Awareness on loan repayment refers to the consciousness of the student in having enough information regarding their responsibility in paying their debt. Volkwein and Cabrera (1998) discovered that students perceive that their loan is compulsory. Moreover, families and students admit that education loan is the indispensable target (Ismail, Serguieva and Singh, 2010). Thus, loan default is not because of consciousness and misinformation. They also found that three out of four students are not aware of the options regarding loan deferment. Furthermore, a study by Hira et al. (2000) found that even if students are in the same course in the same university, their awareness regarding the debt they borrowed is different. Information received by the student is

from many sources. Hence, assessing these sources enables one to gauge their effectiveness in engaging the awareness on debt among youngsters (Grolnick and Slowraczek 1994). Students are now becoming information technology (IT) literate, and depending on the internet to get faster information. As a result, it will increase the awareness amongst young people because of this effectiveness in getting the information. Therefore, this study hypothesizes that:

H1: There is a significant relationship between awareness from media and borrower's intention to repay education loan.

Human Interaction

Jessor and Jessor (1977) have identified that parental influence can be direct or indirect. They also added that generally, youngster's behaviors are influenced from their parent's support. Otto (2000) in his study discovered that ninety-three percent of the respondents had the same views as their parents when they were asked regarding the value of a college education. Moreover, teenagers who always talk with their parents about positive attitudes will behave with positive attitudes compared to those teenagers who seldom talk with their parents. Since childhood, human behavior and attitudes are learnt from family and remain throughout their life (Hakwan, Robert, Patrick and Richard, 2004). Loan agreement is a contract between two parties, which is the organization as the creditor and the student as a debtor. Abu et al. (2006) discovered that university students are knowledgeable regarding the loan agreement and repayments. Most of the students were familiar with the NHEFC loan agreement, and there was only a small percentage who had no knowledge of or did not understand the loan that they had. Volkwein and Alberto (1998) found that, in the western context, in the case of default on loan repayment, lack of knowledge is not a strong factor. A survey by them revealed that ninety-three percent of borrowers realized on the loan that need to be paid; on the other hand, one out of four borrowers were confused on the repayment terms and process. Several studies in the USA found that senior students have better knowledge compared to first-year students regarding certain aspects of their education loan (Hira et al., 2000). Lamkin (2004) and Fossey and Bateman (1998) stated that education loan might affect the future life of borrowers upon their graduation if they do not understand the agreement well. Students that are funding their education with loans are accumulating debt that can affect their life decisions and career for years to come. Therefore, this study hypothesizes that:

H2: There is a significant relationship between human interaction and borrower's intention to repay education loan.

Attitude on Loan Repayment

Attitude on loan repayment can be either positive or negative. Hence, for the debt repayment, positive attitude is found to be an important predictor. According to Livingstone and Lunt (1992), borrowers repay their loan because they are more concerned about their self-direction and personal achievement. Furthermore, students will have a positive attitude on loans when they believe that loans can give value in their life. Several studies found that student loans are beneficial to them when they can achieve good things in their life through borrowing (Baum & O'Malley, 2003; Christman, 2000). Conversely, there are also studies that found student loans to have negative effects, where borrowers feel burdened and not very satisfied with the

advantage of borrowing. For instance, African-American students and students with low-income family background agreed that they felt burdened on their loan (Boyd, 1997; Volkwein & Szelest, 1995). A study by Abu et al. (2006) in one public university in Malaysia for undergraduate students, found that students have a negative attitude with regard to repaying their loan. In the same study, 51% of respondents agreed that loan repayment is not easy. Furthermore, a negative attitude towards loan instalment has been identified amongst African-American, unemployed, female and married (Yieh, 1996).

H3: There is a significant relationship between attitude of borrowers and borrower's intention to repay education loan.

Alternatives on the Repayment

In order to facilitate and encourage borrowers to pay their educational loan, several incentives were given to the borrowers to repay the PTPTN loan. A fifteen percent discount would be given for full settlement of outstanding debt and a ten percent discount would be given for payment of at least fifty percent of the outstanding debt. Another incentive is that, borrowers who are repaying their debt directly or through salary deduction will enjoy a ten percent discount. Therefore, this study hypothesizes that:

H4: There is a significant relationship between educational loan repayment alternatives and borrower's intention to repay education loan.

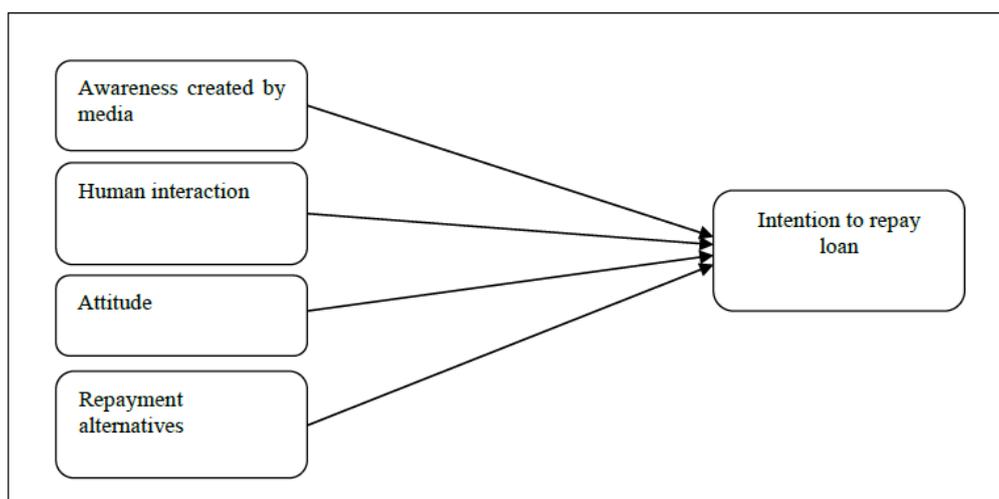


Figure 1: Research framework of the determinants of borrower's intention to repay the PTPTN Loan

Research Methodology

Data collection

The data was collected using structured questionnaire survey. The survey instrument was developed by adopting survey validated questions used in previous studies and was assessed using 5-point Likert scale. The developed questionnaire consists of three sections: in section A, the focus is on collecting information related to demographics of the respondents. In section B,

the main focus is to collect data related to sources of information (such as awareness from media, human interaction, and attitude) towards intention to repay education loan among university staff. Section C is related to respondents' comments on further steps for loan provider to collect the educational fund effectively. A total of 500 questionnaires were distributed to academic and non-academic staffs in the whole of Malaysia by using convenience sampling technique out of which 215 responses were collected.

Data Analysis

This study employed the sample size of 215 respondents with the following descriptive characteristics: 40.9 percent males and 59.1 percent females. The majority are single respondents within 25 years old to 35 years old. Most applicants applied for one-time PTPTN loan for their bachelor degree in which the range fell between RM10,000 to RM30,000. Around 40 percent of the applicants will select deduction method from salary to repay their PTPTN loan.

Table 1: Demographic profile of respondents

| | | Frequency | Percent |
|-----------------|-----------------|------------------|----------------|
| Gender | Male | 88 | 40.9 |
| | Female | 127 | 59.1 |
| Ethnicity | Malay | 57.2 | 57.2 |
| | Chinese | 38.6 | 38.6 |
| | Indian | 0.5 | 0.5 |
| | Other | 3.7 | 3.7 |
| Age | <25 | 51 | 23.7 |
| | 25-35 | 112 | 52.1 |
| | 36-50 | 51 | 23.7 |
| | >50 | 1 | 0.5 |
| Marital Status | Married | 94 | 43.7 |
| | Single | 121 | 56.3 |
| Salary | <RM2500 | 64 | 29.8 |
| | RM2501-RM3500 | 49 | 22.8 |
| | RM3501-RM4500 | 38 | 17.7 |
| | RM4501-5500 | 25 | 11.6 |
| | >RM5500 | 39 | 18.1 |
| Education Level | Diploma | 15 | 7 |
| | Bachelor Degree | 168 | 78.1 |
| | Master | 29 | 13.5 |
| | Other | 3 | 1.4 |

| | | | |
|------------------------|--------------------|-----|------|
| Occupation | Academic Staff | 66 | 30.7 |
| | Non-Academic Staff | 149 | 69.3 |
| Times Loan Application | 1 time | 167 | 77.7 |
| | 2 times | 47 | 21.9 |
| | 3 times | 1 | 0.5 |
| Total Borrowing | <RM10000 | 21 | 9.8 |
| | RM10001-RM20000 | 60 | 27.9 |
| | RM20001-RM30000 | 61 | 28.4 |
| | RM30001-RM40000 | 37 | 17.2 |
| | >RM40001 | 36 | 16.7 |
| Repayment Method | Epf | 25 | 11.6 |
| | Discount | 13 | 6 |
| | Deduction | 87 | 40.5 |
| | Exemption | 8 | 3.7 |
| | Randomly | 82 | 38.1 |

All collected data were analysed using Statistical Package for Social Science (SPSS) version 23 and partial least squares (PLS) structural equation model. Partial Least Squares (PLS) model analyzes and interprets in two stages. In the first stage measurement model evaluates and in the second stage structural model evaluates. The measurement mode evaluates the relations between observed items and latent variables. The measurement variable model examines through assessment of validity and reliability of the construct measures in the model. This ensures that only reliable and valid constructs' measures are used for assessing the nature of relationship in the overall model.

Measurement Model Convergent Validity

First, the convergent validity, which is the degree to which the multiple items that are used to measure the same concept are in agreement, was tested. As suggested by Hair, Black, Babin and Anderson (2010), the factor loading, composite reliability and average variance extracted were the indicators used to assess the convergent validity. The loading for all items exceeded the recommended value of 0.6 (Chin, Gopal and Salisbury, 1997). The composite reliability values (see table 1), which depict the degree to which the construct indicator indicates the latent construct, ranged from 0.791 to 0.889, which exceeded the recommended value of 0.7 (Hair et al., 2010). The average variance extracted, which reflects the overall amount of variance in the indicators accounted for by the latent constructs, were in the range of 0.432 to 0.652, at least in the point of the recommended value of 0.5 (Hair et al., 2010).

Table 2: Factor loading and reliability

| Items | Loading | Composite Reliability | Average Variance Extracted | Cronbach Alpha |
|--------------|----------------|------------------------------|---------------------------------------|-----------------------|
| a1 | 0.655 | 0.801 | 0.446 | 0.696 |
| a2 | 0.685 | | | |
| a4 | 0.662 | | | |
| a5 | 0.676 | | | |
| a6 | 0.664 | | | |
| b1 | 0.603 | 0.791 | 0.432 | 0.683 |
| b2 | 0.661 | | | |
| b3 | 0.637 | | | |
| b4 | 0.679 | | | |
| b5 | 0.702 | | | |
| c1 | 0.863 | 0.882 | 0.652 | 0.820 |
| c2 | 0.866 | | | |
| c4 | 0.751 | | | |
| c7 | 0.742 | | | |
| d2 | 0.619 | 0.853 | 0.596 | 0.768 |
| d3 | 0.861 | | | |
| d4 | 0.842 | | | |
| d5 | 0.741 | | | |
| e1 | 0.747 | 0.889 | 0.572 | 0.850 |
| e2 | 0.790 | | | |
| e3 | 0.786 | | | |
| e4 | 0.788 | | | |
| e5 | 0.689 | | | |
| e7 | 0.733 | | | |

Discriminant validity

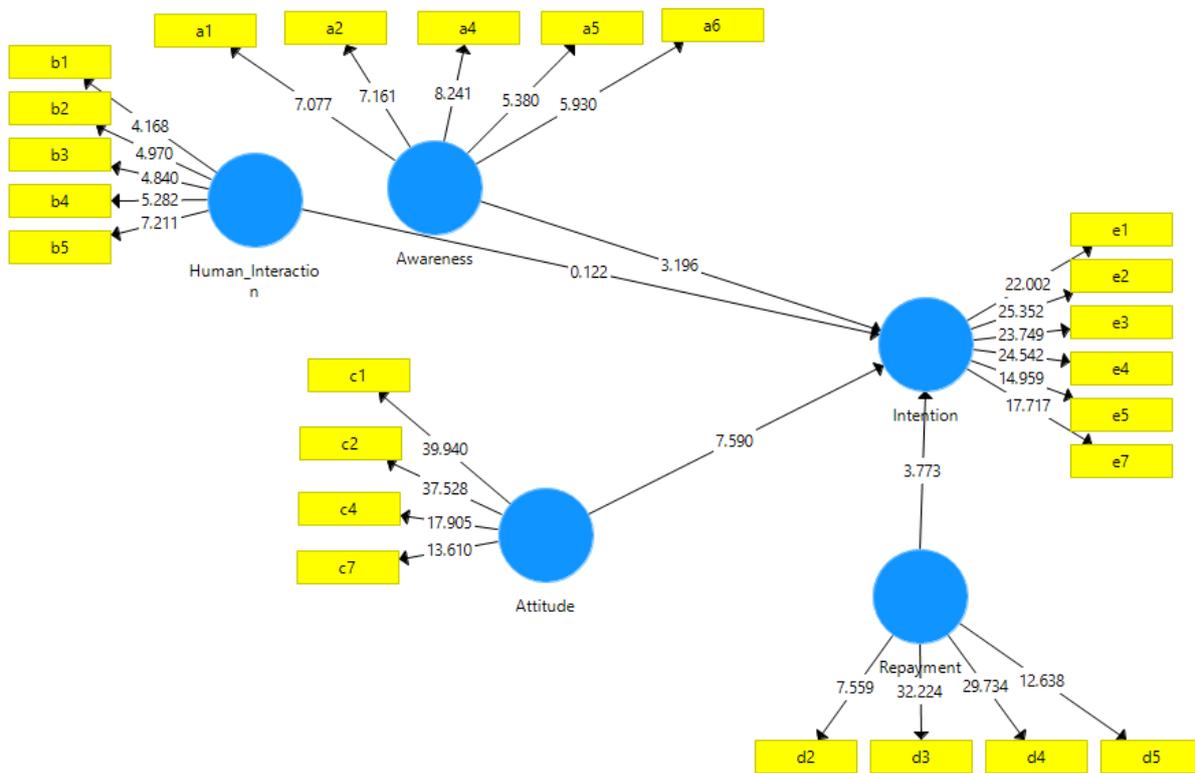
Discriminant validity is the extent to which the measures do not reflect other variables and it is indicated by low correlations between variables by examining the comparing between average variance extracted (AVE). Based on the formula by Fornell and Larker (1981), it requires that square root for each construct's (AVE) be higher than all its correlation with other constructs. As shown in Table 3, the squared correlations for each construct were less than square root of

the average variance extracted, so it can be inferred that the constructs have a good level of validity.

Table 3: Inter-construct correlation

| | Attitude | Awareness | Human Interaction | Intention | Repayment |
|-------------------|----------|-----------|-------------------|-----------|-----------|
| Attitude | 0.808 | | | | |
| Awareness | 0.161 | 0.668 | | | |
| Human Interaction | 0.309 | 0.329 | 0.657 | | |
| Intention | 0.642 | 0.325 | 0.279 | 0.756 | |
| Repayment | 0.522 | 0.208 | 0.281 | 0.563 | 0.772 |

Structural Model



Source: Developed from research

Once the reliability and the validity of the measures are assured, path coefficients can be reported based on the results of a PLS structural model. Table 4 shows the significance of the path coefficients. The t-value can be compared with critical value from the standard normal distribution to decide whether the coefficients are significantly different from zero. For instance, the critical value for significance levels of 5 percent probability of error is 1.96 (two-tailed test). In this study, the results showed that borrower’s attitude, awareness from media and repayment alternatives are the most significant factors that influence borrower’s intention to repay PTPTN loan as agreed.

Table 4: Summary of the structural model

| Description | Hypothesis | Path coefficient | t-value | Results |
|---------------------------------|------------|------------------|---------|---------------|
| Attitude_ -> Intention_ | H1 | 0.466 | 7.590 | Supported |
| Awareness -> Intention_ | H2 | 0.193 | 3.196 | Supported |
| Human_Interaction_ -> Intention | H3 | -0.008 | 0.122 | Not Supported |
| Repayment_ -> Intention_ | H4 | 0.282 | 3.773 | Supported |

*p<0.05

Conclusion and Discussion

The main objective of this research is to investigate the determinants of borrower's intention to repay their PTPTN loan. The findings showed that the borrower's attitude, awareness from media and repayment alternatives but not human interaction were the factors that influenced the borrower's intention to repay PTPTN loan. The combination of printed material, the PTPTN website, television and radio, social media and events organized by the loan providers equipped borrowers with information to help the loan repayment plan. It is consistent with the findings of the previous researches (Grolnick & Slowraczek, 1994; Abu et al., 2006; Volkwein & Szelest, 1995; Ismail et al., 2012). As markets where awareness of education loan repayment remain low (as indicated by Subashini & Duraisamy, 2016; Dillon & Smiles, 2010; Ismail, Serguieva & Singh, 2011; Zainudin, 2017), these findings showed that successful media channels can motivate the borrowers towards loan repayment. Moreover, it is worth suggesting that innovative public sources can help PTPTN to refine and the payment of loan to be more efficient as a means to alleviating default payments by the borrowers.

In addition, the borrowers' attitude played a significant role in educational loan repayment. The pressures pertain not only to educational loan but also other debts among the graduated students from academic institutions (Zainal and Ismail, 2012). Despite the financial burden they had to bear, this research showed that the borrowers still made good faith efforts to repay the loans. Ismail et al. (2011) stated the problems that are related to attitude and loans are seldom touched upon and understood from a financial or debt management perspective. Thus, this research concerning borrowers' attitudes is important and useful to PTPTN and policymakers to understand further their borrowers' discernments in paying back the loans. By taking this lead, it will be able to yield an understanding to develop the right attitude regarding financial planning and management which meets borrowers' needs.

In a bid to make the loan repayment more convenient, the introduction of existing alternative methods (e.g. EPF withdrawal, discount incentive, direct debit, salary deductions and online payment system) by PTPTN so that borrowers may opt to repay their loans clearly continues to help them to make payments on time or work towards an early settlement. This shows that these payment alternatives in loan repayment can be a powerful tool to reduce the delinquency in education loans. This makes it possible to suggest to the loan provider to revise alternatives on the repayment periodically to precede the success of lower loan defaults. In conclusion, the findings from this research are relevant not only to academic researchers, but also to PTPTN

and policymakers to comprehend better specific strategies and other related matters in making sure that borrowers are likely to comply with the repayment conditions so that it would not become a burden to both government and the public.

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