

## IMPROVING TECHNOLOGY ACCEPTANCE MODEL (TAM) FOR THE NEW FIXED ASSETS INDONESIAN TAX ACCOUNTING SYSTEMS

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### ABSTRACT

*There is a large difference between IFRS-based Accounting Standards and taxation rules the Government of Indonesia. In 2011 Indonesian Institute of Accountants (IAI) decide to adopted IFRS-based as Indonesian Accounting Standards. Fixed assets ware one of the most affected accounts in financial report because of adapted IFRS rules in Indonesian Accounting Standard. Unfortunately, changes in accounting standards are not followed by a change in the tax rules. Fiscal reconciliation process must be undertaken because variety of the fixed assets and depreciation methods or valuation. Various in types and high number of fixed assets and tax payers lack capability of tax reporting, leads high complexity problem in fixed asset tax accounting. Therefore software that is able to accommodate the interests and demands of the standard tax is one means to facilitate required reporting. This study used an experimental method using two groups of samples which taxpayers and consultants. With the purpose of comparison tests performed a between-subject testing. By using an independent testing sample t-test results showed that there is not difference perceived usefulness (PU) by the taxpayer and consultants. Both groups of experimental units assume that the system is able to improve their performance. Therefore the first hypothesis is rejected in this research. The results of the second test indicates the second hypothesis is accepted, it means a significant difference of the level of ease of use (Perceived Ease of Use) perceived by the taxpayer and consultants. In general, these results show the potential tax accounting software users are more focused on the consultants.*

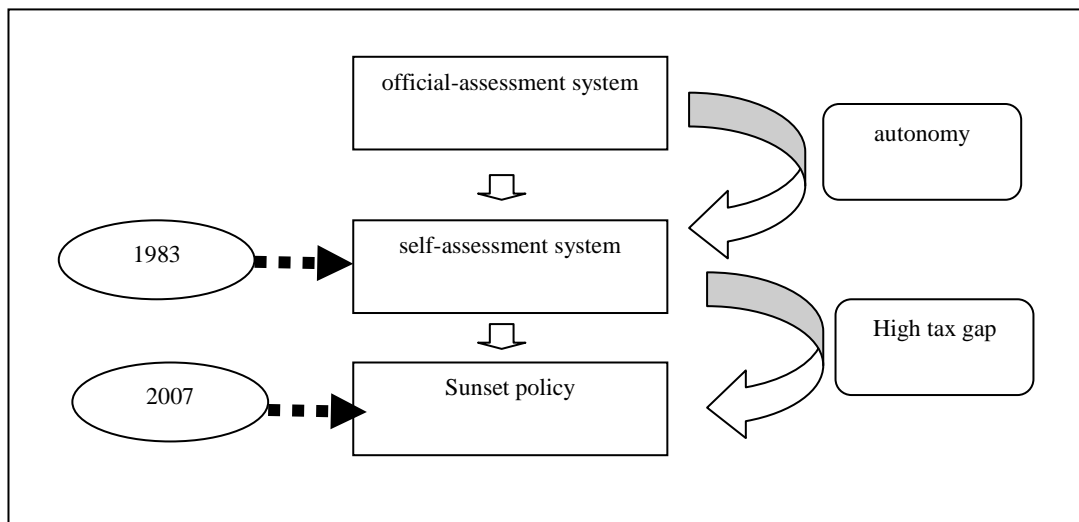
Keywords: Fixed Assets, TAM, taxpayers, consultants

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### Introduction

Since the 1983, the tax collection system in Indonesia changed. Indonesia has been replacing the tax collection system from official-assessment system into a system of self-assessment. Self-assessment system is still applied until now. Self-assessment systems is a tax collection system that gives trust to the taxpayer to compute/calculate, pay, and self-reported the amount of tax that should be pay based on the tax regulation. Even self-assessment system has been applied for more than twenty years this system has not been able to increase tax revenues significantly. There are significant gap between theoretical tax and tax revenue. This happens because there are many citizens who do not become tax payers. Therefore in 2007 Indonesian government tried to increase the number of taxpayers with sunset policy. Indonesian tax reform history can be shown in Figure 1.

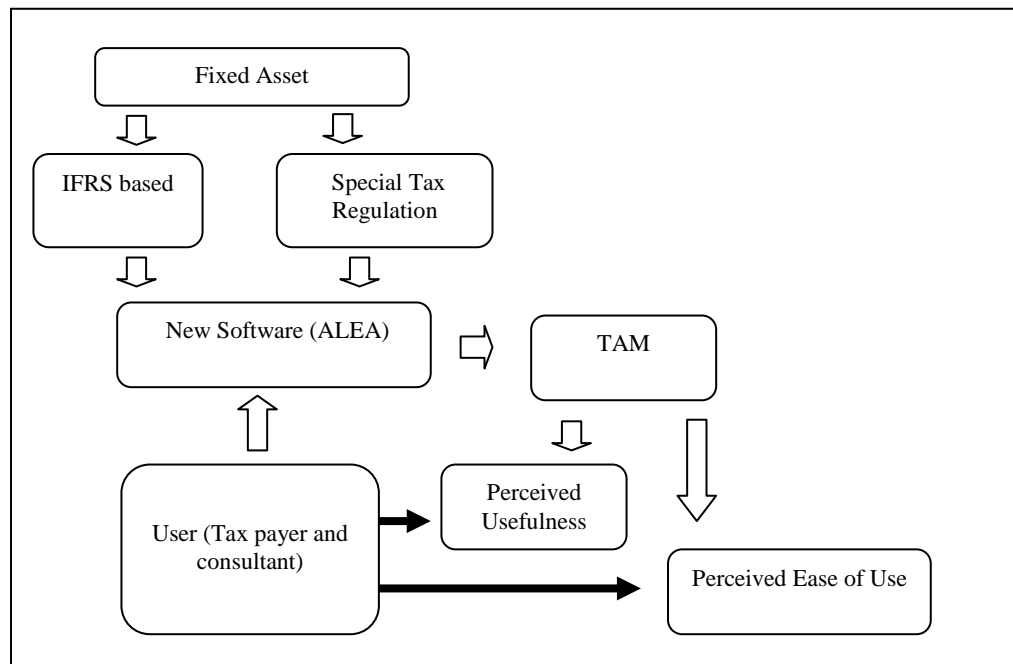
Figure 1. Indonesian Tax Reform



The sunset policy makes the number of Indonesian tax payers significantly increase. But, just a few taxpayers do their own tax calculations. Even Indonesian use self-assessment system, most of the tax payers use consultant to help them to do their tax obligation. The greatest barrier in applied self - assessment tax reporting procedure in Indonesia is high complexity tax regulation especially to prepare financial statement. As we know, every financial statement should be compared in years or with other enterprises to measure company perform. In order to do that the same accounting standards required. In 2011 Indonesian Institute of Accountants (IAI) decide to adopt IFRS-based as Indonesian Accounting Standards. Fixed assets are the one of the most affected accounts in financial report because of that adoption. In Indonesia this accounting standard changes, not followed by Indonesian taxation rules. Because of that, there is big difference of fixed assets measurement and recognition based on the standards set by IAI and government tax regulation. Therefore, provide software which capable to make fixed asset calculation in accordance with the both rules is needed.

In our research, we develop ALEA software prototype to calculate fixed asset. This new software was present fixed assets report according both of tax regulation and IFRS standard from IAI. The difference emerging of the fixed asset calculation between the taxation regulation and IFRS will be displayed in fiscal reconciliation report. The purpose of the new software is to mitigate tax payer complexity in counting fixed asset, so that increase self - assessment tax reporting.

Figure 2. Research Model



A good system must be accepted by the users especially the new ones. Therefore, researcher needs to examine the acceptability of the new software. Acceptability of this system is measured by using Perceived Usefulness (PU) and Perceived Ease of Use (PEOU) from Davies's (1989) Technology Acceptance Models (TAM). Perceived Usefulness (PU) is a variable measuring the level of perceived benefits that will be experienced user, when they use the new system (Davis, 1989). Perceived Ease of Use (PEOU) is a variable measuring the ease of implementation the new system (Davies, 1989). Research model is shown in Figure 2. Empirically, we hope that research results could be useful for software development in the field of tax accounting.

Furthermore, for a new system that has not had a major user targets it is necessary to know the differences in the level of acceptability of fixed asset software on multiple user groups to determine the main target users of software. We divided our participant into two groups, because in Indonesia there are two group of tax payer. First group is tax payer who do pure self – assessment system. It means, the taxpayer compute/calculate, reported and pay the amount of tax that should be pay based on the tax regulation by themselves. They are such an ideal tax payer in Indonesia, but unfortunately just a few of tax payer joint this first group. Most of tax payers are classified as second group. Second group is unpure self- assessment tax payer. In this group, tax payer ask consultant to compute/calculate and reported the amount of tax that should be pay based on the tax regulation. Both of group have very different character. Tax payers in second group have less knowledge about tax. Some of them has no knowledge about tax regulation. They give all the their responsibility to their consultant. Because of that reason, in our reaserch we divided was tax payer and tax consultant. Both of them had experince in reporting tax, so they compare manual calculation and ALEA software.

## Theory

### Fixed Asset Regulation in Indonesia

ALEA was developed based on Indonesian fixed asset regulation. There are a lot of differences between Financial Accounting Standard and the tax rules. The main differences are asset classification, range of life of asset, asset assesment, the choice of depreciation method, re-assessment rules, and impairment rules (Ratnaningsih *et. al*, 2013).

The Regulation of the Minister of Finance Nr. 96/PMK.03/2009 specifically regulates the fixed assets classification. All of fixed asset, excpt bulidings, divided into four class. Tax payer must classified their fixed asset. This regulation has high difficulty because of high variety from the fixed assets they owned. This regulation also stated that every fixed asset class has certain economics useful time. Estimate economis time of fixed asset is prohibited. In Financial standards, taxpayer can estimate fixed asset economics time. The different age of the fixed assets under both of regulation is very influential in the fixed asset depreciation calculation.

Some of differences come when IAI (Indonesia Accountant Institute) decide to adopted IFRS for Indonesian Financial Accounting Standard (Ratnaningsih *et al*, 2013). First difference is about fixed asset revaluation. Based on the Financial Accounting Standards (PSAK) No. 16 (Revised in 2011), paragraph 31, says that there is prevalence to routine fixed assets revaluation. Opposite from that regulation, based on Finance Minister Regulation No.79/PMK.03/2008, a fixed asset revaluation conducted should have a permission of the Minister. This regulgation also stated that fixed asset revluation can only be done once

in 5 years. The two condition must be fulfilled in order revaluated fixed asset. This difference makes tax payer must reconciliated fixed asset value every time they do fixed asset revaluation, but they can't fullfil required condition in Finance Minister Regulation No.79/PMK.03/2008. Other difference which caused by IFRS adoption is about fixed asset impairment. IFRS said that fixed asset impairment can be done when the organization estimates that there is reduction of fixed asset value, or if there is potentiallaly asset reduction. Fixed asset impairment under IFRS is possibly done at any time. Oposite of IFRS, taxation regulation prohibited impairment. In taxation value of existing fixed assets is historical, not estimation value, so there is impossible for fixed asset impairment.

### **Technology Acceptance Model (TAM)**

In general, research on the behavioral aspects of technology absorption derived from the some psychology theory. In this study, the main research base used is the Technology Acceptance Model (TAM) developed by Davies (Davies, 1989) from the Theory of Reasoned Action. TAM is a theory that is used to predict the acceptability (acceptability) or adoption of a tool or technology and identify possible modifications needed for the technology to be accepted by users. TAM explained that the acceptance of a technology is measured based on two main things that perceived benefits (perceived usefulness) and perceived ease of use. Perceived ease of use also contributed instrumental in improving the performance of a person. The easier the use of an information system means less and less effort means a person must do in order to improve its performance by using the information system. By using the accounting software program taxation fixed assets that have to accommodate the needs of both IFRS standards compliance tax regulation, so users will be able to reduce the effort required to improve performance.

### **Reinforcement Theory**

Selection of a method or system that is used by the taxpayer will always be influenced by motivation businesses in conducting their business activities. Motivation is generally arise when the offender knows the needs and shortcomings of activities, then look for ways to satisfy his needs. Achievement of these activities behavioral activities directed at the expected goals. It will be more influenced in the performance. Then he would reassess his needs after seeing the results or impact of the performance obtained is done. The extent to which positive or negative impact that he got the action he did to fulfill the needs and shortcomings faced.

One of the theories of motivation is the theory of reinforcement. This reinforcement theory states that behavior is influenced consequences (Gibson, 2003). Based on the theory of strengthening managerial perspective will be very influential when he realized the benefits or positive consequences of the use of accounting software tax fixed assets compared to using manual calculation. Similarly, a taxpayer's motivation for choosing the method of tax reporting perpetration will be influenced by how large the benefits of the system are presented. The higher the benefits of the use of accounting information it will motivate taxpayers to use a particular system is the most profitable for him.

### **Hypotheses development**

Reinforcement Theory states that behavior is influenced consequences (Gibson, 2003). In the perspective of strengthening managerial decision making theory will be very influential when he realized the benefits or positive consequences. If the existing systems are considered able to improve their performance then they will tend to use the system. Therefore, the perception of the usefulness of the system for users becomes important. Both groups of potential users have different characteristics. Consultants handle fixed assets of more than one companies, perhaps even reach a dozen companies. Therefore consulting group is required in terms of performance compared to the taxpayer. High demands will motivate them to look for ways to make its work more efficiently. The new system becomes more useful for consultants who have to deal with more assets. The first hypothesis is formulated as follows:

H1: There are differences in the Perceived Usefulness (PU) are perceived by the taxpayer and Consultant.

Acceptance of the new system was developed greatly influenced by how easily the system can be used. Both groups of potential users of this new software has different levels of experience in calculating fixed assets. Consultant has a level of experience that is much more in terms of the calculation of fixed assets rather than the taxpayer. This is because their experiences handling fixed assets in many companies. Therefore, the second hypothesis is formulated as follows:

H2: There are differences in the Perceived Ease of Use (PEOU) perceived by wajiib taxes and Consultant.

### **Research Methods**

#### **Participants**

The participants who joint this research were 32 taxpayers and tax-consultant from Indonesia. Tax payers in this study is Tax Center's cliens in Unika Soegijapranata, Semarang. They are tax payers who come from several city in Central Java, Indonesia. Tax consultant in this study is tax specialist consultant from Accounting Firm or Tax Consultantating Firm in several city of central Java, Indonesia.

Participant selected with purposive judgment sampling method. Participant needs to meet the criteria such as all of them had at least one year tax reporting, they have fixed asset (for tax payer) and consultant who had experiences of handling fixed assets in their client companies. The most important criteria is that they want to try the new fixed asset tax accounting software and has voluntary participation in our research. As a field research, to selecting the participants some conditions should be

fulfilled, such as the participants' voluntariness, disclosure, confidentiality, beside the quality sameness of treatment and experiment (Nahartyo, 2013).

### **Procedure**

We divided our participant as two groups. First group is taxpayer group. The second group is consultant group. The main task of all participants was to have a try-out of ALEA software. After they try the software, we measured their PU and PEOU, to examine the acceptability of the new software. In order compare distinction between consultants and taxpayers we use independent sample t-test with SPSS.

### **Questionnaire**

All research variables used Likert - type scales (with 5 points). There are two variables in this study. These variables used to measure Technology Acceptance Models (TAM) for ALEA software. The variables are the Perceived Usefulness (PU) and Perceived Ease of Use (PEOU). Perceived Usefulness (PU) is a variable measuring the level of benefits experienced by the taxpayers when they use the system (Davis, 1989).

This variable is measured by using Perceived Usefulness instrument developed by Davis (1989). In this research the items are modified into three questions to make them relevant within the context of the fixed asset tax accounting. A high score is given when the taxpayers feel that the system is useful for them. On the contrary, a low score is given if the taxpayers do not perceive the usefulness of the system.

Perceived Ease of Use (PEOU) is a variable measuring how easy the system used (Davis, 1989). This variable is measured by using Perceived Ease of Use (PEOU) instrument developed by Davis (1989). In this research the items are modified into three questions to make them relevant within the context of the fixed asset tax accounting. A high score is given when taxpayers feel that the system is easily used while a low score is given to the taxpayers feeling that the system is not easy to be used.

### **Results**

This research hypothesizes that there are difference acceptance between tax payers and consultant for ALEA software. Software acceptance was reflected with TAM (Technology Acceptance Models). This research detailed Technology Acceptance Models as Perceived Usefulness (PU) and Perceived Ease of Use (PEOU) for the new fixed assets software (Venkatesh and Davis, 2000). The SPSS shows that Perceived Usefulness (PU) and Perceived Ease of Use (PEOU) have high level. As shown in Table 1, Perceived Usefulness (PU) has mean 12,69. It's higher than Perceived Usefulness median number (PU median number is 7.5). Table 1 also show high Perceived Ease of Use (PEOU) level with mean 11,92. It's higher than Perceived Ease of Use median number (PEOU median number is 7.5). As general, both tax payers and consultant have high acceptance to the software.

Table 1: Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
PU	42	10,00	15,00	12,6905	1,35229
PEOU	42	8,00	14,00	11,9286	1,33239
Valid N (listwise)	42				

To test Perceived Usefulness differences between tax payers and consultant, we used independent samples t-test from SPSS. Levine test shows  $F = 0.238$ , and  $p = 0.629$ , meaning that there isn't equal variance assumed from both groups (Ghozali, 2013). Equal variance not assumed shows that there is a significant difference between the two groups,  $t = -0.351$ , sig (2-tailed) = 0.728 (Ghozali, 2013). The group of tax payers participants had higher Perceived Usefulness (mean=12.78) than the group of consultant (mean=12.65). Although the differences were not statistically significant for Perceived Usefulness, the result shows that the tax payers participants got higher score than the consultant participants.

Table 2. Perceived Usefulness Analysis

**Group Statistics**

STATUS	N	Mean	Std. Deviation	Std. Error Mean
PU Wajib Pajak	18	12,7778	1,47750	,34825
Konsultan	24	12,6250	1,27901	,26108

**Independent Samples Test**

	Levene's Test for Equality of Variances		t-test for Equality of Means		
	F	Sig.	T	Df	Sig. (2-tailed)
Equal variances assumed	,238	,629	,358	40	,722
Equal variances not assumed			,351	33,628	,728

Independent sample t-test was also used to test the differences of tax payer and consultant Perceived Ease of Use. There are significant differences toward tax payer and consultant Perceived Ease of Use. Levine test shows  $F = 0.247$ , and  $p = 0.622$ , meaning that there isn't equal variance assumed from both groups (Ghozali, 2013). Equal variance not assumed shows that there is a significant difference between the two groups,  $t = -5.783$ , sig (2-tailed) = 0.000 (Ghozali, 2013). Confirming our second hypothesis, the participants of the consultant group had higher Perceived Ease of Use (mean = 12.7083) than the tax payers group (mean = 10.89).

Table 3. Perceived Ease of Use Analysis

**Group Statistics**

STATUS	N	Mean	Std. Deviation	Std. Error Mean
PEOU Wajib Pajak	18	10,8889	1,07861	,25423
Konsultan	24	12,7083	,90790	,18532

**Independent Samples Test**

		Levene's Test for Equality of Variances		t-test for Equality of Means		
		F	Sig.	T	Df	Sig. (2-tailed)
PEOU	Equal variances assumed	,247	,622	-5,930	40	,000
	Equal variances not assumed			-5,783	32,983	,000

**Discussion**

The main aim of this research was to determine potential users. In this research, both tax payers and consultant groups as a potential users have high Technology Acceptance Models (TAM). Both of the groups have high Perceived Usefulness (PU) and Perceived Ease of Use (PEOU) level. This result shows that the software is acceptable for its potential users.

Perceived Usefulness test result shows that the both taxpayers and consultant were agree that the new software will improve their performance. This condition may occur due to the nature of the fixed assets that is deemed complicated for participants. Although the differences were not statistically significant for Perceived Usefulness, the result shows difference than research hypothesis before. The result shows that the tax payer participants got higher score than the consultant participants. That result means that this software is most use full for tax payer participant. It's the opposite of research hypothesis which says that new system becomes more useful for consultants who have to deal with more assets. This differences occur because all the taxpayers who becoming participants are generally they having a tax ID (NPWP) less than ten years. Some of the participants are taxpayers was utilize consultants' service in making their tax reports. Taxpayer had little experience to calculate their fixed asset. Consultants handle fixed assets of more than one companies, perhaps even reach a dozen companies. Consultant had high experience to calculate fixed assets. Because of that, the new systems which can calculate fixed asset more needed by tax payers than consultant. Further qualitative analysis shows that improving acceptance software for consultant can be done with more systematic data storage. They also suggest to make this software online, so they can catch data easier in every place.

The results show that differences potential users has a significant impact toward ease perceived. To the consultant group, it is easier to use the new software because their experience of calculating fixed asset. This condition indicates that the existing software is not sufficient to be independently used. Some user still needs easier to use. Therefore, in the future, a developed system is needed so that the system can be easily to use. In order to improve acceptance of this software, a manual guidance is needed, so taxpayer can use software by themself.

**Conclusions**

There isn't significant difference perceived usefulness from the taxpayer and consultants. Both groups of experimental units assume that the system is able to improve their performance. Therefore the first hypothesis is rejected in this research. In the future, experience must be controll by researcher to find better perceived usefulness. The results from the second test indicate the second hypothesis is accepted, it means a significant difference level of perceived ease of use by the taxpayer and consultants. In general, these results show the potential tax accounting software users are more focused on the consultants. This research show that there is different ways to improving TAM for different user. Even, taxpayer and consultant group have high acceptance of this software. There are different trend between them. Tax payer group have higer PU, and consultant group have a highir PEOU. For the consultant a systematic data storage is needed to inprove their PU. For the consultant a systematic data storage is needed to inprove their PU. For tax payers a manual guidance is needed to improve their PEOU.

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