# THE INFLUENCE OF PREPAYMENT POSITION AND TAXATION INFORMATION DISSEMINATION ON TAXPAYERS COMPLIANCE BEHAVIOR

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Abstract: Prepayment position (additional tax due vs a tax refund) shouldn't influence taxpayer compliance behavior at the time of filing annual tax return. However, prospect theory predict that an individual's income tax witholding position affects taxpayer compliance. Prior research has produced mixed results. Then, to spur tax compliance, traditional enforcement paradigm should be supported by a new paradigm, called service paradigm. Service paradigm consider as a more persuasive approach than traditional one. Service may delivered through information dissemination. The information dissemination includes enforcement-oriented information and service-oriented information. This study uses laboratory experiment to examine influence of tax prepayment position and information dissemination on two type of taxpayer compliance, namely filing and reporting compliance. Our results show that subject in a tax due position are more aggressive than subject who are in tax refund position for reporting compliance. Service-oriented informations are more effective to spur tax reporting compliance than enforcement-oriented information, but there are no difference effect on filing compliance.

Keywords: Prepayment position, information dissemination, filing compliance, reporting compliance

### I. INTRODUCTION

The taxation system that embraces the self-assessment system/self-reporting requires taxpayers who are responsible with compliance behavior (Feltham and Paquette, 2002) and this is one of the key successes of voluntary reporting (White *et al.*, 1993). This system gives broads authority to the taxpayers to calculate and remittance of their tax obligations. Before submitting the annual tax return, taxpayer has known their prepayment positions (overpayments or underpayments), and this prepayment position should not influence amount of tax payablewill be reported. However, studies of psychological theory and decision theory implied

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the taxpayer prepayment position may affect their preferences for risk, for example, taxpayers will choose a riskier option when they are in underpayment position (loss/due position) than in overpayment position (gain/tax refund position) (Dusenbury, 1994). The Taxpayers on underpayment position will behave more aggressive than overpayment positiontoward ambigous treatment such as allowed deduction. Prospect theory suggest that individuals are risk-seeker in a loss position and risk-averse in gainsituations. It is important for the tax administrator to understand this thing since the choice of risks when filingtax returnmay affect taxpayer compliance.

The tax authority has adopted various ways and innovations to reduce the level of non compliance and taxpayer's aggressiveness. Alm and Torgler (2011) suggest that there are threetax administration paradigmswhich affect tax compliance. The first paradigm is enforcement paradigm which is derived from economics-of-crime approach, also known as coercive approach. This paradigm emphasizes to the detection and punishment. According to economics-of-crime approach, increasing tax complience achieved through enforcement effortwhich treats the taxpayer as a potential criminal offender. Alm et al. (2010) considered this approach as incomplete paradigm. The enforcement paradigm required high frequency of audit and the imposition of penalties (Allingham and Sandmo, 1972). However, conducting tax audit required substantial cost (Hasseldine et al. 2007), and its intensity was likely decline (Alm, Jackson and McKee, 2006).

The second paradigmis services-oriented, which emphasize the role of tax administration as a facilitator and provider of services to taxpayers. This paradigm explains the role of government to provide services, including corcerning tax compliance. The application of this paradigm is the provision of friendly information and assistance (Hasseldine at al., 2007; Chung and Trivedi, 2003) and helpful and persuasive communication with the taxpayer (Doyle et al., 2009). Third, trust paradigm, which is introduced by Kirchler et al. (2008). Some researches on this paradigm directed to the trust to tax authorities and the taxpayer ethics (Wahl, Kastlunger and Kircler 2010; Alm and Torgler, 2011). The paradigm of service and trust is derived from the seminal work by Lewis(1982) about the psychology of taxation. Recently, some of the tax reforms in various countries have adopted the service paradigm, including Indonesia. Braithwaite (2003) states that the tax agency pays more attention to their service in the last decade. Alm et al. (2010) suggest that the enforcement paradigm must be supported by other paradigms to improve the effectiveness of efforts to increase tax compliance. Although there are two paradigms as an extension of enforcement paradigm, this study only focused on the second paradigm, called paradigm of service.

The latest developments in the study of tax compliance are more about social and fiscal psychology approach, but its effectiveness still questionable. Doyle *et al.* (2009) showed that the tax information with a softer tone could help to improve the compliance. However, Hasseldine *et al.* (2007) showed an inconsistent finding. They found that the sanction-oriented communication gives more effective impact on tax compliance than communication contains assistance and enabling. Chung and Trivedi (2003) suggests that a friendlypersuasion failed to increase tax compliance but they found that the interaction effect when persuasive approach is interacted to gender. Similar findings were previously found in Violette (1989) and Blumenthal *et al.* (2001) which found that the normative call is not successful. The inconsistency of this finding calls re-examination of the effectiveness of persuasive approach in improving tax compliance.

According to prospect theory by Kahneman and Tversky (1979), taxpayers tend to take riskier choice when their prepayment position is a tax due. This choice leads them to behave more aggressive in fulfiling their tax obligations rather than taxpayers in reverse prepayment position. Most of previous studies showed that taxpayer's prepayment position influencedtheir behavior (White et al,1993; Dusenbury, 1994). The aggressiveness of taxpayer is expected to be reduced through the presentation of tax information by tax administrators. Without having sufficient data on the probability of tax audits, penalties imposed, allowed duduction in the calculation of taxable income and other relevant information,put taxpayers in uncertain situation. This uncertainty may affect taxpayer's behavior to be more aggressive or conservative. Services by the provision some important information is expected to reduce this uncertainty and, in turn, influence taxpayers compliance.

Despite many studies tested the effectiveness of the approach to increase tax compliance, there still no studies that tested the taxpayer compliance by considering their prepayment positions. Previousstudies examine taxpayers compliance by comparing the two approaches with the same situation. Then, the studies that test annual tax returnfiling compliance are still limited. Previous studies mostly focused on reporting compliance. By considering the position of taxpayer prepayment position, this study primary focus on how information dissemination by tax agency influence tax compliance behavior, both filingand reporting compliance.

This research was conducted by laboratory experiment approach. The basic experimental setting mimics the naturally occurring environment. Dissemination of information is divided into two levels, namely the enforcement-oriented information and service-oriented information, as well as tax payerspre payment which is divided into underpayments and overpayments. Results showed that there are main effect of taxpayers pre payment position and dissemination of

information forreporting compliance but not for filing compliance, and there is no interaction effect found.

This study provides some contributions. First, this study provides an explanation about individual attitude of taxpayers in uncertainty situation. Tax payers or individual who are risk-averse is expected to have different compliance decision from risk-seeker taxpayer. The results of this study confirm prediction of prospect theory. Second, this study complements the limitations of previous studies that only focus on reporting compliance and ignoring filing compliance. Third, the results of the study will provide an alternative way to increase tax compliance beside proofing and imposition of sanctions. More specifically, the increasing interaction between the tax authorities and the taxpayer through the services and provision of information will improve the image of the tax authorities, and in turn will increase taxpayer compliance. The success of services paradigm approach will support the success of the overall tax modernization.

Next sectionwill be followed by a literature review and development of hypotheses, methods, results and discussion.

## II. LITERATURE REVIEW AND HYPOTHESES DEVELOPMENT

## 'Enforcement' Paradigm and 'Services' Paradigm

The economic model of income tax evasion (Allingham and Sandmo, 1972) based on the approach to the economics-of-crime pioneered by Becker (1968) is considered as incomplete approach. This model only focuses on taxpayers reporting behavior, and ignore other forms of tax evasion, such astax return fulfillment. The economic model or enforcementparadigm requires tax audits with adequate frequency, however, the audit is not without cost (Hasseldine *et al.*, 2007) and the general trend shows a decline in the level of audit (Alm, Jackson and McKee, 2009). To be effective, this paradigm should be supported by other efforts. Therefore, incentives to increase tax compliance through the service paradigm are considered relevant and important. This incentive is more meaningful with the implementation of tax reforms that promote communication, interaction and service to taxpayers. Similar to the argument that traditional paradigm is incomplete, Kirchler *et al.* (2008) suggests the need for interaction between the enforcement efforts as a form of power with facility incentives as a form of trust. These two arguments seemed to confirm that enforcementparadigm is no longer effective improve tax compliance solely.

## The Importance of Filing Compliance

Various studies have provided sufficient confidence that tax compliance is a behavioral phenomenon. More clearly, if we trace back to the elementary level, the research by Alligham and Sandmo (1972), which is based on the economics-ofcrime approach found that the taxpayer rated to face the gambling among the conditions (states of the world): in one side the individual/taxpayer will report their income and pay taxes while on the other side individual/ taxpayer does not report their income and do tax evasion. Such individuals compare their expectations utility from the reporting (saving option) with the expectationutility of evasion (a risky option).

An explanation of the expected utility above is actually oversimplifies a more complex of taxation phenomenon. Conditions or individual setting is actually much more complex and this complexity expected influencetaxpayer behavior. According to Alm *et al.* (2010), one simplification is that this approach examines only the reporting decision. There is also a prior filing decision, orwhether or not to even file a tax return. To the extent that non-filers are not "in the system" and so are not at risk of being selected for audit, the traditional policy response of increased enforcement efforts is not effective. In this condition, the traditional approach by improving Enforcement efforts as statedAllingham and Sandmo (1972) and Yithzaki (1974) is not effective. They will only be at risk to be audited if they are "in the system" by submitting their annual tax returnsfirst. So it can be reiterated that previous studies not yet able to capture the behavioral aspects of the taxpayer concerned to taxation liabilities because ignoring filing compliance.

This phenomenon does not rule out the possibility that taxpayers who did not report her tax return for not to be audited. If they are detected do not report their tax returnthere will be additional penalties then. In connection with the decision of tax return submission, taxpayers will be faced with a trade-off between a lower probability of being detected due to non-filing with a greater penalty for the filing. For the decision of filingtax return, the taxpayer will take into account the expected utility of filingor non-filing the tax return.

# Prospect Theory, Prepayment Position and Taxpayer Behavior

Prospect theory is a descriptive theory of decision making under uncertainty conditions (Kahneman and Tversky, 1979). The results of analysis and empirical research suggest that the submission of tax returns and reporting tax payable forminga risky choice (Allingham and Sandmo, 1972). Prospect theory has been validated in different decision contexts and in different options attributes. Prospect theory is a fits framework to study of tax compliance decisions, both compliance in tax return submission or reporting decisions.

Kahneman and Tversky (1979) theorized that frame of reference to assess the prospects is the number of the outcome stakes. They argued that people will perceive output (outcome) as a loss or gain toward a neutral reference point

relatively. White *et al.* (1993) stated that in the taxation context, zero tax due is the referent point. Prepaid position should not affectednumber of tax should be paid by the taxpayer. However, studies of psychological theory and decision theory on taxation found that the taxpayer prepayment position affect their risk preferences, such as the taxpayers will adopt a riskier reporting position, reported lower profit, when their position is a tax due, relative to a tax refund position.

Several previous studies have used the prospect theory as the basis of their design, particularly related to framing and risk preferences of taxpayers (like Schepanski and Kelsey., 1990; Jackson and Hatfield, 2005 and White et al., 1993). This researchers found that the frame of taxpayer decision-making affect their tax compliance levels. Taxpayer in loss frame is more aggressive than taxpayer in gain frame. The decision-making frame appropriately represents the position of prepaid taxpayer. Feltham and Pacquette (2002) implies that the amount of tax installments have to be paid during the current year (tax installment) whichform their prepayment position at the end of the fiscal year, influencedtaxpayer behavior when they made the calculationof their actual tax payable. The results that are consistent with the previous findings indicated by Yaniv (1999). He found that taxpayerreporting behavior consistent with prospect theory predictions that showed the taxpayer in underpayment position likely to choose a riskier decisions by reported lower revenue rather than taxpayers in overpayment position (refund position). In other word, Overpayment taxpayer or high-type taxpayers tends to be more compliantthan the taxpayer with underpayment or low-type taxpayers.

By applying the prospects theory in the context of taxation, zero tax due is a natural and neutral reference points. As a result, the taxpayer will regard overpayment as gain position and underpayment as a loss position when they submit their tax return. Property of loss aversion from prospect theory implies that the subject is in underpayment position will behave more aggressively/noncompliant than the subject in overpayment position (White *et al.*, 1993). By underlying to the argument that taxpayers who regard themselves loss domain of income (i.e the taxpayer in underpayment position) will likely take more aggressive tax positionscomparing to the taxpayers who consider themselves to be in the gain domain (i.e the taxpayer at overpayment position) which likely take more conservative tax position. Because the explanation of prospect theory is assumed only suitable for compliance reporting, so that the first hypothesis is formulated as follows:

H1: Taxpayer in underpayment position will behave more aggressive in their tax reporting rather than taxpayers in overpayments position.

# **Information Service and Tax Compliance**

Deterrence theory proposed three mechanisms to prevent illegal behavior that are, legal sanctions threat, social threat (informal sanctions) and guilty threat (moral awareness). Kaplan, Newberry and Reckers (1997) explained that the old paradigm emphasizes to legal sanction while alternative philosophy is to use positive communication. Recently, this alternative philosophy approach is adopted in various research with the development of moral obligation (Hite, 1989), providing assistance and enabling (Hasseldine *et al.*, 2007) and providing information (Alm *et al.*, 2010).

Alm *et al.* (2010) found that when dealing with uncertainty condition, the slight decline of tax compliance level occurs compared to the condition of certainty. Furthermore, they found that a decrease in the level of compliance will be off-set by the provision of information. However, in general they found that the filingbehavior is not affected by the uncertainty and information services. There were no significant differences in compliance of filingtax returnboth under uncertainty conditions or certainty conditions, so there is no difference in conditions of certainty with or without service information. However, they found that the provision of information significantly influence the reporting compliance. These results are consistent with the research done by Alm *et al.* (2009) related to the provision of information. Alm *et al.* (2009) found that the enforcement efforts through information dissemination increased taxcompliance behavior.

When faced uncertainty situation, the taxpayer will seek for justification of their behavior and actions. Suppose that the same individuals are informed through inspection that the uncertainty will lead to the penalties, then the individual can respond to this information by greater tax evasion in the future and he/she can argue that the ambiguity in the tax liability is an error done by tax administrators and the evasion can be justified (Alm *et al.*, 2010). The taxpayer may behave more aggressively against the tax deductions they might get. The reasons for such justification can be reduced by providing relevant information to the fulfillment of taxpayer obligation.

From various studies concerning the provision of tax information (Hasseldine *et al.*, 2007; Alm *et al*; 2010; Chung and Trivedi, 2003), the type of information provided to the taxpayer are deterrence (audit information and penalties), help or assistance (offering to help taxpayers to fulfill their tax obligations), education (positive use of income taxes) and social norms (honest information indicates that tax evasion is widely perceived as not accepted attitude). The setting in this study choses the type of information deterrence and assistance, then compare the effect of both on the behavior of taxpayers.

If the information is presented and supported with good interaction between taxpayers and tax authorities, then the compliance can be expected to increase. When presenting this information is considered helpful and responses to the questions asked by taxpayer can be answered in the right time and in an appropriate manner, compliance will increase more than if the interaction is only seen as a form of imaging or adversarial (Alm *et al.* 2010). This consideration is supported by studies on tax compliance associated with the transparency perception and fairness of tax administration (Kirchler *et al.*, 2008; Worsham Jr., 1996).

Boyle *et al.* (2009) found that the taxpayer, who arereceived the information in a softer tone and helpful manner, showed better respond by paid more tax. Although there is no significant effect of providing information toward filingcompliance, Alm *at al.* (2010) found that the provision of information can reduce the uncertainty and succeed to off-set the non-compliance resulting from the uncertainty. Chung and Trivedi (2003) tested the effect of two treatments done by tax authorities to adherence levels of taxpayer. Both of these treatments are friendly persuasion and control. They found that a friendly persuasion did not significantly affect tax compliance, but by interacted that friendly persuasion with gender they found a significant interaction effect between gender and friendly persuasion. Similar findings were also raised by Hasseldine *et al.* (2007). Although in general they find that the sanctions information is more effective than citizenship information, both of this information types are successfully improving a turnover and sales figures reported by taxpayer.

Based on the findings regarding the effect of providing of information on tax compliance, hypothesis 2 formulated as follows:

H2a:Service-oriented informations are more effective to improve taxpayer reporting compliance rather than enforcement-oriented information.

H2b:Service-oriented informations are more effective to improve taxpayer filing compliance than enforcement-oriented information.

# Prepaid Position, Uncertainty and Services Information

In fulfillment of the tax obligations, the taxpayer must prepare their financial statement before submitting theirtax return. In this process the taxpayer may dishonest in reporting the income and expenses of their account in their tax payable calculation. After finishing their financial statements, the taxpayer is already known their tax position before submitting the tax return. The taxpayer can do this duty by themself or being helped by a tax consultant. For taxpayers who do not hired a consultant may be consult with their Account Representative to get some information they need. With the service paradigm, Account Representative is

expected as the parties who able to provide assistance for taxpayer such as by providing relevant tax information.

Alm *et al.* (2009, 2010) found that the dissemination of information succeed to increase tax compliance and returning the declining compliance due to lack of initial information. It is proved that providing information such as enforcement-oriented and service-oriented information is aneffective way to increase tax compliance. Similar findings were also raised by Hasseldine *et al.* (2007). Although in general they find that sanctions information is more effective than citizenship information, both this information are successfully increase turnover and sales figures reported by the taxpayer of Small and Medium Enterprises. Interestingly, Mckee and Vossler (2013) found that there is an asymmetryrespond of the service information to the two types of prepaid position, where the taxpayer in underpayment position may respond the information by lowering the levels of their underpayment while taxpayers in overpayment position giving the same respond to the information they receive.

Based on the argument that the aggressiveness of the taxpayer can be controlled by giving them useful information, hypothesis 3 is formulated as follows:

H3: Effectiveness of service-oriented information relative to enforcement-oriented information is greater for the taxpayers in underpayment position than the taxpayers in overpayment position.

#### III. RESEARCH METHOD

## **Experiment Design**

The research is conducted by the laboratory experimental approach in a 2x2 between-subject design. Two independent variables in this study are prepayment position (underpayment versus overpayment) and the dissemination of tax information (enforcement-oriented information versus services-oriented information). Two dependen variables are filing compliance dan reporting compliance. The research design is shown in Table 1 below.

Table 1 Research Design

	Information Dissemination		
Taxpayer's Prepayment Position	Enforcement-oriented information	Service-oriented information	
Underpayment	Cell 1	Cell 2	
Overpayment	Cell 3	Cell 4	

# **Experimental Task**

Experimental task was modified from White *et al.* (1993). Subjects were asked to assume themselves as having self-managed enterprises (operate a business). Their annual income is Rp200 million and net income before consedering multiple ambigous accounts is Rp 70 million, so by using the tax rate of 25%, it is obtained temporary tax payable Rp 17.500.000. Then, the participants were asked to submit an annual tax return as an individual taxpayer with a business. Previously, they were told that for tax purposes and business, the company has organized bookkeeping so they are not able to choose using the norm of net income calculation.

They were told that there are 5ambigous expense items to be claimed as a deduction from in taxable income calculation. After scrutiny, they found that the amount of ambigous is Rp 25 million and only supported by evidence as much as 20% for each expense<sup>1</sup>. In the most stringent understanding, claimingunsupported expense is an act of tax evasion, but expensing costs which is supported by evidence and in accordance with the tax provisions is allowed under tax regulation. Then subject were told that if any reductions are not claimed then there will be additional tax of Rp 6,250,000 (equivalent to 25% of the 25 million). It means reducing their overpayment of Rp 6,250,000 to Rp 1,250,000 or enhanced their underpayment of Rp 6,250,000 into 13.75 million. If the reduction is claimed, the subject is reminded for the possibility of theirtax returnwill be audited by the tax authorities. Then, Subjects receivedsome information and decide to claim or not that ambigous expense as adeduction. Once they learn the information provided, then, they determine how much they claim to each of these dubious charges

To ensure the achievement of the degree of "parallelism", this experiment was designed as naturally as possible. Instructions and documents (forms) are given using the language of taxation, then the taxpayer will decide to file or nottheirtax returns, andthey will reveal their tax payable in the same manner typically with actual conditions.

# Independent Variable

The taxpayer prepayment position is manipulated by randomlyplaced a subject in underpayment or overpayment position. Then they are given a case to the accounts being debated in the case. The associated amount are designed to ensure that the prepayment position in accordance with the purpose of this study. By using a hypothetical case, subjects are told that based on provisional calculation, the tax payable is Rp 17,500,000. For taxpayers in overpayments position, they were told that the tax credit is Rp25 million, while the subject inunderpayments condition has tax credits forRp. 10,000,000. Thus, the amount of their overpayment and underpayment are similar on the amount of Rp 7,500,000. The amount of the

overpayment and underpayment is equally determined between the two groups. This treatment are also found in White *et al.* (1993) and Jackson and Hatfield (2005).

In the manipulation for the information dissemination, the participants were randomly assigned to the two types of information conditions, service-oriented and enforcement-orientedinformation. Treatment for service-oriented information was adopted from Ghost and Crain (1996) while enforcement-oriented information refers to Alm *et al.* (2010). Enforcement-oriented information consist of information about tax pinalty, audit rate and previous year audit yield, while service-oriented informationis in form of guidance provided by the tax authorities for the taxpayers regarding the ambigous expenses accounts as mentioned above. It is assumed that all information received by the taxpayer perceived as reliable information. Here is presented information about the parameters used in this study.

Table 2 Research Parameters

Parameter	Nilai	Justification
Audit Probabilities	30%	Actual auditprobabilies is unknown and confidential, but it can be explained that taxauthority treats various income level dan income sources differently. Tripper (1992) found that average of taxpayers perception about IRS audit probabilities is 35%. Alm <i>at al.</i> (2010) used 30% and 40%.
Pinalty Rate	150%, including principal.	Modified from Alm <i>at al.</i> (2010) dan adjusted to indonesian tax regulation.
Audit Yield	20%* government receipt from tax.	Estimated proprotion of total tax evenue come from audit condected.
Tax Rate	25%	Based on tax rate applied for corporat taxpayer in Indonesia. To maintain research purpose, it holds at 25%.
Tax Guidance		Modified from Ghost and Crain (1996) dan adjusted to indonesian tax regulation.

## Dependent Variable

Two dependent variables in this study are filing compliance and reporting compliance. The first compliance is measured by dummy based on the willingness of subject to submit theirtax return. Reporting compliance is measured by the percentage theexpense claimed by the subject to the overall unsupported expenses. The greater amounts are claimed means the more aggressive or lead to noncompliant behavior, and vice versa.

#### Covariate

This research considers gender as a covariate. Taylor and Curtis (2013) argued that gender may create inconsistent influence in ethical decision-making. Cited from Taylor and Curtis, gender differences have been found in the score of DIT (St. Pierre *et al.*, 1990), in preference to the decision-making approach (Jones and Hiltebeitel, 1995), in the awareness of ethical (Bernardi and Gupti, 2008) and in the reaction to the challenging ethical situation (Cohen *et al.*, 2001). In their research on whistle-blowing, Taylor and Curtis found that men are less sensitive to variations in power power related to reporting errors. In the context of tax research, Chung and Trivedi (2003) found gender effects on tax compliance. Other studies show that women are more ethical than men in terms of tax compliance behavior and their taxation attitude (Scholz and Pinney, 1995; Baron *et al.*, 1992; Steenberger *et al.*, 1992). However, another study found no gender differences in the intentions of ethical (Goldman, 2001).

## **Participants and Manipulation Checks**

The participants in this study design aremaster degree of accounting students. Ashton and Kramer (1980) found that the use of students as the surrogate have no different from non-students in the study of decision-making although it is different in the studies involving the behavior and behavioral change. Mowen and Mowen (1986) examined whether the effect of framing is consistent between the students and the business manager and they found that they were identical. These findings are consistent with the general conclusions of Ashton and Kramer (1980). Libby *et al.* (2002) confirms the important thing is the participants should have the attributes required in the research setting. This study deals with decision-making, so the use of students as the surrogate for taxpayer is considered appropriate.

After participants complete all their tasks in taxation, they were asked four questions on manipulation check. The first question to indicate the role they play in completion the task (whether as a taxpayer with underpayment or overpayment position). The second question regarding the type of information they got. The third question relates to the range of the amount of expenses they can claim as a deduction and the fourth question asks their final tax position and its amount. Previously, the pilot tests have been conducted involving 27 participants.

### IV. RESULT OF THE RESEARCH

## Subject of the Research

The subject in this research is the Master of Accounting program students of the Faculty of Economics and Business (FEB) Univeritas GadjahMadawho surrogate

the role of the taxpayer. The experiments are followed by 48 participants. After doing manipulation check, three (3) subjects did not pass the test so that the final subject of the study was 45. The subjects who did not pass the manipulation checkcome from cell 1, 3, and 4, so that the number of subjects for each cell around 11-12 people. Subjects consisted of 22 males (48.8%) and 23 females (51.2%). Participants spent 35 minutes to complete experiment task. All subjects already have their own income, have a tax identification number and have experience in submitting annual tax returns individual taxpayers. Experience Profile demonstrated by subject indicates that they are appropriate desiredsice the experiments they follow assume their familiarity with taxation.

# Descriptive Statistics and Hypothesis Testing Results

One of the assumptions in the test of Manova / Mancova is that the covariance matrixes of the dependent variables are the same. This assumption was tested with Box's Test of Equality of Covariance Matrices. Test results show this assumption is supported (Box's M test = 2.585; F = 0.391 and p = 0.086). Another assumption is that each dependent variable has the same variance for all groups. Levene's test was used to test this assumption. The test results showed the support for this assumption to the dependent variable of aggressiveness (agress) with a value of F = 1.364 and p = 0.267, but cannot fulfilled the dependent variable for reporting compliance (F = 3.512; P = 0.023). According to Ghazali (2001), test can still be performed as far as the group has the same size of sample (proportionally). Descriptive statistics and Manova's models is presented in Table 3-5 below:

Table 3
Mean (Standard Deviation) for Reporting Compliance

		Information Type	
Prepayment Position	Enforcement-oriented	Service-oriented	Total
Underpayment	0,579 (0,197) n = 11	0,408 (0,245) n = 12	0,492 (0,235) n = 23
Overpayment	0,359 (0,250) <i>n</i> = 11	0, 216 (0,262) n = 11	0, 287 (0,261) n = 22
Column Total	0,469 $(0,247)$ $n = 22$	0, 316 (0,266) n = 22	0,391 (0,266) n = 45

Table 4
Mean (Standard Deviation) for Filing Compliance

	Information Type			
Prepayment Position	Enforcement-oriented	Service-oriented	Total	
Underpayment	0,730	0,83	0,780	
	(0,467)	(0,389)	(0,422)	
	n = 11	n = 12	n = 23	
Overpayment	0,730	1,000	0, 860	
	(0,467)	(0.000)	(0,351)	
	n = 11	n = 11	n = 22	
Column Total	0,730	0,910	0,820	
	(0,456)	(0,288)	(0,387)	
	n = 22	n = 23	n = 45	

Manova's Model  $2 \times 2$  for both of the dependent variable to the level of aggressiveness of taxpayer (reporting compliance) and filling compliance are presented in Table 5 below.

Table 5
Mancova's Models for Formal Compliance and Taxpayers aggressiveness Estimasian

Source	Dependent Variable	Type III Sum of Squares	Df	Mean Square	F	Sig.
Intercept	Reporting	4,085	1	4,085	70,729	,000
•	Filing	12,396	1	12,396	97,937	,000
Prepayment Position	Reporting	,395	1	,395	6,837	,013
1 7	Filing,	087	1	,087	,685	,413
Info Type	Reporting	,282	1	,282	4,877	,033
	Filing	,243	1	,243	1,916	,174
Prepayment Position*	Reporting	,005	1	,005	,095	,760
Info tyoe						
	Filing	,003	1	,003	,025	,876
Gender	Reporting	,063	1	,063	1,097	,301
	Filing	,422	1	,422	3,333	,075

Hypothesis 1 predicts that taxpayers onunderpayment condition will be more aggressive than the taxpayers on overpayments condition. Descriptive statistics in Table 3 indicates that the average level of aggressiveness is higher in the taxpayer in underpayment position (0.492) than the taxpayer in overpayment position (0,287). As shown in Table 5, this difference (the main effect of the prepayment position) was statistically significant (F = 6837, p = 0.013), so that, hypothesis 1 is supported.

Then, as can be seen in Table 3, consistent with the hypothesis 2a, the average level of taxpayer agressiveness who received enforcement-oriented information is (0, 469) higher than the taxpayer who receives information in the form of guidelines (0, 316). This difference (as main effect of the type of information) was statistically significant (F = 4.877, p = 0.033), so the hypothesis 2a is supported. Hypothesis 2b predicted that taxpayers who receive the service-oriented information will be more compliantrather than taxpayer who received enforcement-oriented information. Descriptive statistics in Table 4 indicate that the average level of filing compliance was higher in theservice-oriented condition (0.91) than the taxpayer on enforcement-oriented condition (0.73). However, as can be seen in Table 5, this difference (main effect of prepaid position) was not significant statistically (F = 1.916, p = 0.174). These results implies that the hypothesis 2b is fail to support.

Hypothesis 3a predicts that Taxpayers in underpayment position will respond information differently with the taxpayer in overpayments position, in this case, the stronger aggressiveness shown towards enforcement based information than services-based information. Descriptive statistics in Table 3 shows this difference in underpayment condition (.579-.359 = 0, 220) is greater than on overpayments condition (0.408-0, 216 = 0.192), but this difference as presented in Table 5 do not showsignificant interaction effect (F = 0.095, p = 0,760). These findings imply that H3a is not supported. Although the two main effects of each independent variable are statistically significant, there is no guarantee that the interaction will also be a significant. The interaction occurs when the effects of the independent variables differed between the levels of the other independent variables (Leary, 2008). Mean in Table 4 shows that both prepayment position has the same effect on the participants in a condition to receive enforcement-oriented information and services-oriented information. The figure of mean which is lower on overpayments condition/service information reflects the effect of additives on prepaid position/ type of information but not interaction.

## Discussion of the Result

This study has two objectives: first, to reexamine the influence of prepayment position on tax compliance, and second, to test the influence of the type of information is presented to taxpayers on the compliance by considering taxpayer prapayment position. Testing on type of information is conducted to answer the callfor understanding the effectiveness of the shift of taxation paradigm from the traditional enforcement approach to a more conciliatory and persuasive approach, known as the service paradigm. There are two types of tax compliance tested in this study, the filing compliance in form of tax returnsubmission and reporting

compliance associated with deduction of expenses with unsupported sufficient evidence. The first type of compliance is still got little attention in previous studies.

From the tests,it was obtained empirical support that prepaymentposition of taxpayer has a main effect towardreporting compliance of taxpayer. Taxpayers on underpayments conditions behave more aggressively before facing the ambigous of various accounts rather than taxpayers on overpayments conditions. This aggressive behavior shows the lower level of tax compliance. This finding is in line with expectations and consistent with the predictions of prospect theory. These findings are consistent with the findings of White *et al.* (1993), Dusenbury (1994), Jackson and Hatfield (2005) and Feltham and Pacquette (2002). These findings imply that the tax authorities should not only focus on the date of reporting/ submission of tax returnbut also need to pay attention to the previous condition. In the context of taxation in Indonesia, although there is no rule to submit a preliminary report yet, but the existence of this position can be detected by observing the current year tax installments, estimated tax credits and tax payable in accordance with the Article 25 of the Law concerning Income Tax.

The next finding shows thatthere is a significant main effect of the type of information received by taxpayer on reporting compliance. It indicates that the taxpayer will give better respond toward the persuasive and helpfulinformation by reporting higher taxes. The results of this research support the findings of Alm et al. (2010) and Boyle et al. (2009). These findings imply that the paradigm of service needs to get more attention in the future due to this paradigm approach looks more effective in educating the taxpayer rather than provide the coercive information (enforcement) which can be perceived by the taxpayer as a threat. The tax authorities and other stakeholders are challenged to be consistent to develop a new paradigm in the efforts to improve tax compliance without abandoning the traditional paradigm. This may have important policy implications to socialize the tax reform program, which has been launched to be more focused and well-managed.

The test on main effect of information types descriptively showed that the taxpayers who receiveservice-oriented information are highly comply to fill their tax return (91%) than the taxpayers who received enforcement-oriented information (73%). However, this difference was not significant statistically. These findings are consistent with the findings of Alm *et al.* (2010), which also failed to support the hypothesis that predicts the effect of providing information on the filling compliance. This result requires tax authorities to look for other more effective ways to increase taxpayers compliance in filing/deliveringtheir tax return, for example by emphasizing the information about the consequences of not submitting tax returns and give more complete guide on the procedures for the submission of

tax returns. Taxpayers are expected to be more concerned to submittheirtax returnwhen the compliance cost they perceive it is not expensive.

This study expected that the aggressiveness of the taxpayer will be influenced by the interaction between prepaid position and type of information they received. The taxpayer is expected to respond the two types of information differently depending on the position of their initial prepayment position before the deducted some ambigous account. For example, taxpayers inunderpayment position is expected to be more aggressive than the taxpayer under overpayment positionin respond to both tipe of information. However, there were no interaction effect found. These findings indicate that the taxpayer in underpayments perceivein similar way for both types of information. Taxpayers in underpayments conditions remain aggressive even though the information contain is more friendly and helpful.

## V. CONCLUSION, LIMITATIONS AND FUTURE RESEARCH

This study examined the effectof taxpayers prepayment position and information dissemination toward taxpayer compliance behavior. Prepayment position should not affect taxpayer compliance when they submit tax return. However, there are inconsistencies on the influence of taxpayer prepayment position toward compliance in previous research. Likewise, the effectiveness of persuasive approach comparing to coercive approaches are still vary inprior studies. Their interaction also need to be tested to determine how variations in the dissemination of information is responded by the taxpayer in different prepayment position. The compliance being tested in this study are bothfiling compliance and reporting compliance. The previous studies that tested the filing compliance are still rare.

For reporting compliance, the results showed that the taxpayer in underpayment position behave more aggressive than taxpayer in overpayment position. These findings imply support for the prospect theory. Taxpayers who receive service-oriented information indicate a higher level of compliance (lower aggressiveness) than taxpayers who received enforcement-oriented information. The research had similar findings with Alm *et al.* (2010). These results indicate that the paradigm of service is more effective in improving tax compliance than enforcement paradigm. There was no interaction effects in relation between prepayment position and type of information provided.

Some limitations can be identified from this study. First, the information presented to the taxpayer is assumed to be reliable information. Vossler, Mckee and Jones (2011) assumes that the availability of information should be followed by the reliability of the information provided, so then we may expect positive behavior to tax compliance. Second, the design of the study ignores the certainty

of auditfactor for taxpayers who file a refund due to overpayment obtained. Third, the contents of this study design was more emphasized to the reporting compliance. It is supposed influence the findings related to filing compliance. Fourth, the measurement of taxpayers willingness which are considered as a dummy variable may not directly capture the willingness of taxpayers well. With a certain size of range, for example 0-10, probably will give more valid results.

Future research may lead to the testing of two, even third paradigm proposed by Alm and Torgler (2011) as a whole complementary, rather than comparing between one paradigm with other paradigm such as done in this study. Next, future research needs to consider the long term effects of the existing paradigms, such as whether the long-term effectiveness of the service paradigm will always exceed enforcement paradigm. Furthermore, it is necessary to investigate the extent to which the taxpayer in overpayment position is willingly to sacrifice his position as a result ofaudit they will face. Allegedly taxpayers with relatively large overpayment position will respond the information differently than the taxpayer in small overpayment position. A taxpayer with a small overpayment position expected to release their position to be small underpayment to avoid a tax audit.

#### Note

1. Before deciding to use Rp 25.000.000, apilot test was conducted by comparing Rp 25.000.000 and Rp 50.000.000.Using both amount (Rp 50.000.000 vs Rp 25.000.000), its found that there is no a signifant differences (p > 0.05). Therefore, researcher have a reasonable argument to use Rp 25.000.000 in this study. White *et al.* (1993) conducted a similar way to gain a reasonable explanation to shorten his treatment from 18 session to 9 session.

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