Analyis Benford's Law Model as an Alternative for Benchmark Behavioral Model Method to Identify Tax Payer's Compliance

Case Sudy: DGT Regional South Jakarta II

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Abstract: This research aims to assess the effectiveness of Benchmark Behavior Model (BBM) implementation method for identifying tax payer's compliance and to know the implementation of Benford's Law Model as an alternative method of BBM. Research method used in this research is mixed method through interviews and distribution of questionnaires to Account Representative in Directorate General of Tax Regional South Jakarta II and by conducting quantitative testing on the elements of post tax returns Annual Income Tax 1771 tax year 2015. According to the interviews and distributed questionnaires, it can be informed that implementation of BBM method is not effective and required a new method as a tool in overseeing tax payer's compliance. Based on testing in the elements of post tax returns Annual Income Tax 1771, it can be informed that Benford's Law Model can be used as an alternative method in overseeing tax payer's compliance.

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1 INTRODUCTION

National development is the government's efforts in realizing the welfare of the people both materially and spiritually. In carrying out the implementation of the development, the government needs funds to finance the state expenditure. The largest source of funds for national development comes from tax revenue. Based on data at the Directorate General of Budget of the Ministry of Finance during 2010-2016, taxes contribute on average above 63 percent as a source of revenue on the State Budget (APBN).

To support the tax revenue target that always increases from year to year, the Government has made several tax reforms, beginning in 1983 by changing the tax calculation system from official assessment to self assessment. Implementation of self assessment system system will be effective if the tax payer's compliance has been formed (Darmayanti, 2012).

The indicator that becomes the parameter in determining the taxpayer's compliance level is the rate of return of the annual tax return of the corporate and personal tax payer's.

Table 1 Annual Rate of National Tax Return

Statement/Year	2013	2014	2015	2016
Registered Tax Payer	24.347.770	27.379.255	30.044.103	32.769.000
Mandatory Return Spt	17.731.736	18.357.833	18.159.840	20.166.000
Spt Return	9.951.731	9.970.859	10.972.529	12.735.000
Compliance Ratio	56,12%	54,31%	60,42%	63,15%

Source: http://www.pajak.go.id/DJP Annual Report 2016, processed

According to the data above, it can be informed that the annual report rate return of tax payer's has increased compared to the number of registered taxpayers, but the average ratio of compliance rate

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only reached 56 percent and the highest of annual tax return (SPT) is in 2016 , that is equal to 63.15 percent.

One of the primary activities undertaken to examine taxpayers' compliance is monitoring activity which is performed by Account Representative (AR). AR has a task for identifying taxpayers who are at risk of non-compliance, providing an overview of what tax aspects are indicators of non-compliance, as well as conducting various series of potential tax intensification procedures that can still be optimized. To support these task, the Directorate of Potential Compliance and Acceptance of the Directorate General of Taxes had established a tool as well as a principle in conducting a fair analysis of financial ratios reported through annual tax returns to detect non-compliance's of the corporate taxpayer. This method is called the Benchmark Behavioral Model (BBM). The results of this benchmarking will provide a list of priorities of corporate taxpayers who need to be paid attention to the fairness of its SPT as well as open opportunities for more in-depth analysis of the components that have been reported on the annual tax returns. Based on the description above, the researcher is interested to assess how the effectiveness of BBM method is used as a tool to supervise taxpayer's compliance.

According to the BBM's previous research which was conducted by Fikri, Setyadi and Hardiansyah (2016), it gave a recommendation to Directorate General of Taxes (DGT) for implementing a new method to identify taxpayer's non-compliance, so in this research, Researcher will also discuss how to use Benford's Law Model as an alternative method of BBM for identifying taxpayer's compliance. Based on Benford's Law, the numbers that appear naturally, then the frequency of occurrence of these numbers will follow a certain rule. Conversely, if there is a deliberate element by humans in creating a combination of numbers and entered in a data set, it will show certain numbers that are more or less emerging than expected (Arkan, 2010). Benford's Law is chosen as an alternative method because this method has been proven to be used to detect the anomalies of data sets in various fields (Nigrini, 2000) and to identify fraud in accounting data (Durtschi et al., 2004).

2 LITERATURE REVIEW

2.1 Theory of Taxation

Taxation system that implemented self-assessment system, demanding the active role of the taxpayer in fulfilling their tax obligations so as to achieve high taxpayer's compliance, namely compliance with tax obligations in accordance with the actual conditions. According Nurmantu (2005) taxpayer's compliance is divided into two kinds of formal compliance and material compliance. Formal compliance is the circumstance in which the taxpayer meets its tax obligations formally in accordance with the provisions in the law covering the timeliness in making payments and amounts deposited. Material compliance is the fulfillment of tax obligations where the taxpayer in substance/essence meets all the provisions of taxation, namely in accordance with the contents and the main purpose of tax law.

AR is tasked with intensifying activities in the field of taxation through the provision of guidance/appeal, consultation, analysis and supervision of taxpayers. Based on Regulation of the Minister of Finance (PMK) No. 79/PMK.01/ 2015 on Account Representative (AR) at Tax Office, Account Representative consists of: AR that performs service and consultation function and also AR who performs supervision and in-depth intensive function of potential taxpayer.

In accordance with Internal Letter Number SE-27/PJ/2015 on Auditing by Tax Audit Officer, AR located in Small Tax Office and appointed as Tax Audit Officer (P3) by Head of Office authorized to conduct examination with certain scope, type and criteria of auditing as referred to General Provisions and Tax Procedures (KUP).

2.2 Monitoring of Corporate Tax Payer's Method

In order to improve the guidance and supervision of Taxpayers by the Small Tax Office, the Head Office of the Directorate General of Taxes had issued Internal Letter of the Director General of Taxes No. SE-96/PJ/2009 dated October 5, 2009 on Total Benchmarking Ratio and Its Utilization Directive. The benchmarking process was further transformed into Benchmark Behavioral Model (BBM) in 2012 through SE-40/PJ/2012 and in 2016 had been refined through SE-02/PJ/2016 on Processing of Benchmark Behavioral Model and its Follow Up.

BBM is one of the potential taxpayer intensification tools through mapping the risk of non-compliance of registered corporate taxpayer in DGT database. This BBM method has a principle is only a tool (supporting tools) that can be used by AR in assessing tax payer's compliance and can not be used directly as the basis of the issuance of tax assessment letters. BBM is designed by comparing the financial performance of the corporate taxpayer with the financial performance of the group of taxpayers of the same Entity, ie the corporate taxpayer which is in the same business classification, registered in the KPP on the same Regional Office, and within the similiar business scale.

2.3 Benford's Law Model as an Alternative Method For Monitoring Corporate Tax Payer's Compliance Method

According to Nigrini (2000) Benford's Law is often used in various fields because of its ability to detect data anomalies on a data set. The anomaly, if traced further, may help to detect fraud. Nigrini is the first researcher to extensively use Benford's Law in accounting data for the purpose of detecting fraud. Benford's Law has proved effective in detecting fraud in accounting data (Durtschi et al., 2004). According to Nigrini as quoted by Arkan (2010), there are 8 (eight) number criteria (data set) that must be met in order to be analyzed by using Benford's Law.

Nigrini as quoted by Arkan (2010) explains that there are 5 (five) major testing steps to determine whether a set of quantitative data follows a Benford's Law pattern or not. The 5 (five) tests are First-Digits Tests (FD), Second-Digits Tests (SD), First-Two Digits Tests (F2D), First-Three Digits Tests (F3D), and Last-Two Digits Tests (L2D). Digital analytics tools such as Benford's Law do allow auditors to focus on samples that are considered to have an indication of fraud, but have not proven that cheats exist. Therefore, it needs further deepening through testing, that is a goodness-of-fit test. This test is used to determine whether the data being analyzed is really appropriate or completely different from Benford's Law. Nigrini (2000), as quoted by Arkan (2010), suggest that there are several tests to test it, namely: Z-Statistic, Chi-Square, Kolmogorof-Smirnoff, Mean Absolute Deviation (MAD).

3 RESEARCH METHODS

This research is conducted at 8 (eight) Small Tax Offices in Work Area of Regional Office of DGT South Jakarta II. Research subjects in qualitative data are all AR population in Section of Supervision and Consultation (AR Waskon II, III and IV) in Small Tax Offices DGT Regional South Jakarta II. Research subjects on quantitative data are all corporate taxpayers who have submitted SPT 2015 tax year. The method used in this study is mixed methods which is using primary data and secondary data as data sources. Primary data and secondary data that have been collected in this research in the form of quantitative data and qualitative data. Quantitative data is used as a tool to explain qualitative data so that information and understanding can be obtained related to the effectiveness of implementation of Benchmark Behavioral Model as a tool to detect non-compliance of Taxpayer as well as various obstacles and limitations in its implementation. To test the validity of quantitative data in the form of nominal data, the researcher performs the validity and reliability test. This research has the following framework:

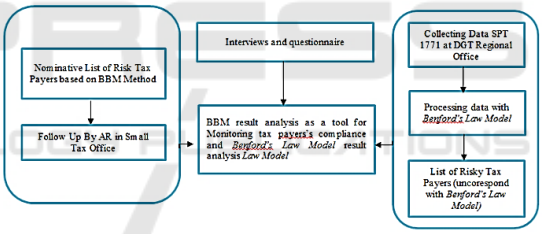

Figure 1 Research Framework

The following analysis steps according to the research framework above are:

1. Analysis of qualitative and quantitative data to answer the first problem formulation: how is the effectiveness of taxpayer's compliance monitoring implementation by using BBM method in Small Tax Office in the area of DGT Regional South Jakarta II. The analysis is beginning by conducting interviews and distributing questionnaires in 8 (eight) Small Tax Offices in the DGT Regional South Jakarta II. To corroborate the results of research, then tested the validity of the statement on the results of questionnaires in the form of nominal data through validity and reliability test by using the microsoft office excel 2010 program;

2. Analysis performed on quantitative data to solve the second problem formulation: How to use Benford's Law Model method as an alternative method of BBM as a tool for identifying tax payer's non compliance. Based on the Benford's Law guidance, The analysis is conducted on the income post, purchasing of goods/merchandise post, salary cost, transportation cost and rent cost from the data of SPT Annual Corporate Income Tax of 1771 fiscal year 2015. The first analysis is quantitative test against existing data set criteria. Further analysis by testing the data type which is the nominal data, through Chi-Square test and Mean Absolute Deviation (MAD). The last stage is to perform a quantitative test consisting of 3 (three) stages: First-Digits Test (FD), Second-Digits Test (SD), First-Two Digits Test (F2D) and Z-Statistic test. The output of the test above is the list of taxpayers who are potentially disobedient in reporting the annual tax return. The next step is to compare the results of data referred to the data of taxpayers who follow the Tax Amnesty program based on Law No. 11 of 2016.

4 FINDING OUT

The overall working area of the Regional Office of DGT South Jakarta II consists of 6 (six) sub-districts namely Kebayoran Baru, Kebayoran Lama, Pesanggrahan, Cilandak, Pasar Minggu and Jagakarsa. The working area of the DGT Regional South Jakarta II has unique characteristics because it consists of residential areas, offices, trade and business. In 2016, the DGT Regional South Jakarta II managed to reach a total revenue of 102.12% or Rp25.28 trillion beyond the 2016 target of Rp23 trillion. This achievement placed the DGT Regional South Jakarta DJP II at the 1st rank nationally, well above the national rank of DGT Regional South Jakarta I at rank 21st. The highest revenue percentage in 2016 derived partly from the contribution of tax amnesty in period I and II with a percentage of 25 % or Rp. 6.3 trillion. In 2016, the government launched a tax amnesty program through Law Number 11 of 2016 on July 1st. Tax Amnesty is a government policy that eliminates taxes that should be owed, not subject to tax administration punishment and criminal punishments in the field of taxation. This facility can be obtained by the taxpayer who disclosing the assets (either inside or outside the country that has not been/not reported in SPT) and by paying number of money to the treasury state in accordance with the tariff that has been determined during this period of Tax Amnesty.

The overall realization of tax revenues at the DGT Regional South Jakarta II, which includes periodic revenues and extra effort (tax amnesty) in 2016, provides some fundamental risks that need special attention. Those are:

1. The slowing growth of routine revenue base (excluding revenue from tax amnesty) from 17.22% in 2015 to only 5.42% in 2016 or a decrease of 11.8%;
2. The high number of tax refund in 2016 which reached Rp1. 677 trillion. This amount is the largest refund numbers in DGT and has created deficit for routine revenue realization. To overcome deficit revenue realization because of this refunds, various extra efforts must be taken to ensure the revenue target by conducting more intensive supervision of taxpayer compliance fulfillment obligations. Increasing tax payer's compliance especially material compliance is the key success to achieve tax realization.

5 ANALYSIS AND DISCUSSION

BBM method is a tool that can be used in intensification activities to increase material taxpayer's compliance. The process of BBM is undertaken at DGT Regional South Jakarta II (Kanwil). The ouptput of this process is a nominative list of risky corporate taxpayers that shall be followed-up by AR. In practice, AR rarely/never uses the nominative list of risk taxpayer data based on this BBM method as a basis for issuing tax assessment and for the proposed material of special risk analysis examination to the Tax Auditor. According to the results of interviews with several AR in the Small Tax Office from DGT Regional South Jakarta II, these things occurred due to several reasons as follows:

a. The data based on the BBM method analysis is merely an early indication of non-compliance which still needs to be comprehensively analyzed and proven whereas AR authority is limited to only publish SP2DK and conduct visit;
b. Most of AR do not fully have ability and knowledge to understand what it is BBM Method. They rely more on data sources that are concrete data types because they no longer need to do analysis and prove the origin of the truth;
c. Most of Taxpayers refuse the contents of SP2DK on postings that are identified unreasonably

based on the BBM method referred to the reasons taxpayers have reported all the fulfillment of their tax obligations and allow officers to examine theirs if they are not appropriate fulfilling their tax obligations;

d. Data analysis based on BBM method requires time, energy and mind, whereas based on its primary task and function AR only conduct supervision to taxpayer, but in practice many adhoc tasks to be done by AR and very time consuming.

After conducting the interview, the researcher distributed questionnaires to the AR Section of Supervision and Consultation II, III, and IV at 8 (eight) KPP at DGT Regional South Jakarta II with the total of AR as many as 176 employees. The number of employees who fill and return this questionnaire as many as 123 employees or by 70 percent of the total respondents on observations. This number has exceeded the minimum number 122 as the representative sample boundary and sufficient amount based on the slovin formula. For testing the validity and reliability of the items of the statement submitted in the questionnaire, the researcher undertaking the validity and reliability test.

5.1 Validity Test

This test is performed with the purpose of obtaining the validity of the measurement, ie the accuracy of the measuring variable. A statement item is declared valid or not, can be seen by comparing the corrected value of the total correlation (r number). If r number is greater than r table then the item of question is valid (accurate).

Table 2 Questionnaire Validity Test Output

No	Statement	r output test	r table	Explanation
1	DGT Regional South Jakarta II frequently establish data feeding in the form of risk taxpayer list based on analysis output of BBM method	0.740938	0.1771	Valid
2	AR always use the data from the analysis of BBM as a tool in monitoring tax payer's compliance/basic consideration in conducting corporate taxpayer audit	0.68894	0.1771	Valid
3	You fully know and understand the use of the BBM method as a tool in overseeing the compliance of the Corporate Taxpayer	0.23792	0.1771	Valid
4	You often get guidance, education and training related to the use of data from the analysis of BBM as a tool in overseeing the compliance of the corporate taxpayer.	0.57787	0.1771	Valid
5	Guidance books of BBM easily learned and understood	0.70255	0.1771	Valid
6	Data feeding analysis from BBM method is easy to be applied as a basis in conducting intensification of potential tax payer.	0.64119	0.1771	Valid
7	Working paper from BBM analysis really helps your task in doing supervision of corporate tax payer's compliance	0.58558	0.1771	Valid
8	Data according to the BBM Analysis is highly valid for monitoring corporate tax payer's compliance.	0.5829	0.1771	Valid
9	Data analysis from BBM Method is highly raw consideration if used as a basis in detecting non-compliance of corporate tax payer and required other data feeding in the form of concrete data	0.68533	0.1771	Valid
10	Follow-up steps are needed in following up data analysis from BBM method, among others, the action in the form of analysis of monthly SPT and annual report SPT, financial statement analysis, SP2DK issuance, visit, observation of taxpayer business process	0.52095	0.1771	Valid
11	Various menu of data feeding and information available on DGT Portal Application and result of Analysis Center for Tax Analysis (CTA) is very helpful in conducting surveillance non taxpayer's compliance	0.66628	0.1771	Valid
12	Sources of internal data in the form of concrete data (PK-PM Confirmation, Approweb, Supervision Application/Mawas,	0.56824	0.1771	Valid

No	Statement	r output test	r table	Explanation
	DGT Apportal Data, Publisher Data/Fictitious Tax Invoice User, SI DJP, etc.) are highly helpful in detecting non-compliance's corporate Taxpayer			
13	External data sources (internet, field observations, mass media, exhibitions etc.) are helpful in detecting non-compliance's of corporate taxpayers	0.23081	0.1771	Valid
14	DGT need to establish new method in detecting non-compliance of corporate and personal tax payers which is easy to be understood, applied and valid in detecting Taxpayer's obedience	0.57342	0.1771	Valid
15	Do you agree if the "**Benford's Law Model**" method is used as an alternative to the BBM method to detect non-compliance with the Taxpayer?	0.54534	0.1771	Valid

Based on the calculation output using microsoft office excel 2010 program (test result 2 (two) direction with 5% significance level and degree of freedom = 123-2 = 121, value r table = 0,1771) hence output all of r questions bigger than r table so that all items are valid statements to be applied in this research.

5.2 Reliability Test

Reliability indicates the extent to which a measurement result shows relatively consistent results when re-examined twice or more. The reliability test using alpha cronbach coefficient with its calculation applying microsoft office excell 2010 formula. Based on the results of reliability testing above, then obtained the value of 0.887, exceeding the value of alpha cronbach of 0.6 so that all items above statement are reliable.

5.3 Descriptive Statistic Analysis

Respondent's responses to the statement items of the distributed questionnaires to determine the effectiveness of the use of of risky taxpayers list based on the BBM method as a means to detect non-compliance of Taxpayers are as follows:

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Table 3 Respondent's Summary Response

No	Statement	Disagree and Highly Disagree	Agree and Highly Agree	Doubtful
1	Statement 1	17%	50%	-
2	Statement 2	30%	10%	-
3	Statement 3	24%	4%	4%
4	Statement 4	31%	6%	-
5	Statement 5	27%	10%	3%
6	Statement 6	74%	26%	-
7	Statement 7	72%	28%	-
8	Statement 8	73%	27%	-
9	Statement 9	5%	95%	-
10	Statement 10	7%	93%	-
11	Statement 11	4%	96%	-
12	Statement 12	2%	98%	-
13	Statement 13	16%	84%	-
14	Statement 14	3%	97%	-
15	Statement 15	5%	79%	-

Respondent's response to the questionnaires distributed to the ARs above reinforces the proof of the low level of realization of the nominative list based on the BBM method used by AR as the basis for the potential tax intensification activities which leads to the realization of tax revenue. Based on the

data above, it can be concluded that the use of risk taxpayers data based on the BBM method is ineffective for identifying non-compliance corporate taxpayers.

5.4 Benford's Law Model For Monitoring Tax Payer's Compliance

In this section, Researcher will be analyzing quantitative data to solve the second problem formulation that is how to use Benford's Law Model as an alternative method of BBM as a tool for identifying tax payer's non compliance. Benford's Law method is chosen because based on the statement in point 14 and 15 questionnaires above, the majority of respondents approved the use of new method (Benford's Law Model) in overseeing taxpayer's compliance. The analysis is performed on the data sourced from the SPT 1771 fiscal year 2015 which has been submitted by 17.951 corporate taxpayers in 8 (eight) KPP within the Regional Offices of DGT South Jakarta II.

The first data set to be analyzed according Benford's Law test derived from tax payers income that has been reported on the Annual Income Tax return of 1771 with the following criteria:

a. The data to be analyzed is a unified whole and describes a similar phenomenon.
   Data sourced from the corporate annual income tax return 1771 constitutes a unified and unbroken entity and informs all types of tax that are the obligations of the Taxpayer.
b. Data is not within the maximum or minimum range (between certain numbers).
   In reporting the tax payable, there is no provision for the Taxpayer that requires to report the maximum limit and minimum income and expenses that become components of the compilers of financial statements.
c. Data is not a deliberately formed number or symbolized number.
   1771 annual tax return data of corporate tax is the data of fulfillment of tax obligation which has been done by taxpayer so that the value of the figures is the number that occurs because of the taxpayer's financial transaction (natural) and does not form a certain order that intentionally made (eg: Taxpayer Identification Number NIK/Population Identification Number).
d. Data has a large size (amount of numbers more).
   In order for Benford's Law to be used properly, then the number of data must be large and contain numbers whose number of digits is at least four. In addition, the amount of data used should consist of 1,000 records. If the data is less than 300, Nigrini suggests that Benford's Law is not used. The data used in this study is SPT data that has been submitted by 17,951 corporate taxpayers for fiscal year 2015.
e. Data belongs to an entity so that it can be distinguished from others and data is not duplicated.
   Taxpayer data will be different each others and there will be no duplication as it depends on the value of business income and the costs reported by the Taxpayer in accordance with the field of their respective business.
f. Data if sorted from the smallest to the largest value form a geometric series.
   Based on the calculation using microsoft excell 2010 program, the figures derived from the taxpayer income in SPT 1771 The numbers that have been sorted from the smallest to the largest do not form a geometry series, so the requirements for this criterion are not met.
g. The Data has an average value (mean) greater than middle value (median).
   Based on the calculation using microsoft excel 2010 program, the median value is 2.487.297.550 and the mean is 18.398.346.641. This means the mean value of the data is greater than the median value.
h. Data has positive *skewness*.
   Based on the calculation using microsoft excel 2010 program, the outcome skewness value of 34,564. This positive skewness value means the data distribution is leaning to the right (positive).

According to the results of the analysis above, the overall number criteria (data set) that must be met to be analyzed by using Benford's Law have been met, only one criterion that can not be met is the sequence of data form a geometric series.

5.5 Primary Testing Based on Benford's Law Model

The first test is performed based on business income post to calculate Mean Absolute Deviation (MAD) and Chi Square (X^2). According to these, shown MAD value of 0,00179 which means that the general pattern of business income data is close to conformity with Benford's Law Model. The result of X^2 calculation based on working papers in Microsoft Excel 2010 of 7,4666 shows smaller number of Chi tables of 15,5073 (DF = 8; $\alpha = 0.05$) which means this pattern is similar to Benford's Law Model (Ho

accepted). Based on First-Digits Test (FD) is obtained the following results:

Table 4 Business Income *First Digit Test*

Number	Sum	Frekuensi		Z
		Actual	*Benford*	
1	3.383	0,302	0,301	0,182
2	1.959	0,175	0,176	0,346
3	1.413	0,126	0,125	0,351
4	1.144	0,102	0,097	1,834
5	867	0,077	0,079	0,695
6	726	0,065	0,067	0,900
7	637	0,057	0,058	0,501
8	555	0,050	0,051	0,761
9	523	0,047	0,046	0,437

The output of data calculations above when shown in graphical form are as follows:

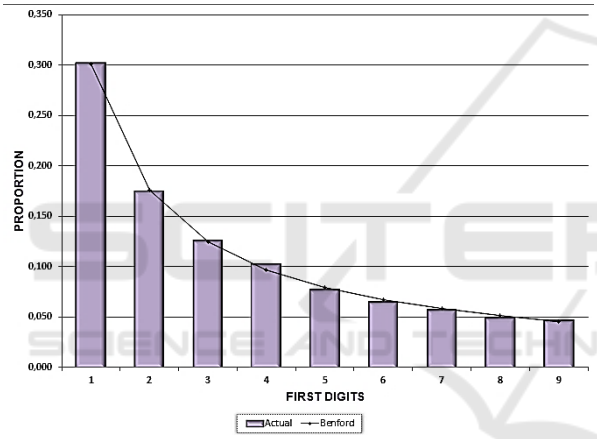

Figure 2 Chart of Business Income *FD Test*

Based on the output of the calculations in table 4 and figure 2 above, and the results of the z test with $\alpha = 0,05$ indicating no numbers above 1,96 ($z >= 1,96$ indicate anomaly) this means that for the first digit test of business income in general, follow the pattern on Benford's Law Model (there is no anomaly on data of taxpayer income).

Based on the second steps of the MAD calculation results obtained value of 0,00346, this means that the pattern is generally close to conformity with Benford's Law Model. Subsequent testing with the method of calculating X^2 based on working paper in Microsoft Excel 2010 obtained value of 8,3367. This value is smaller than Chi table of 16,91898 (DF = 9; $\alpha = 0,05$) which means this pattern is similar to Benford's Law Model (Ho accepted) pattern. Based on the Second-Digits Test (SD), are obtained the following results:

Table 5 Business Income *Second Digit Test*

Number	Total	Frekuensi		Z
		Actual	*Benford*	
0	1.455	0,130	0,120	3,296
1	1.231	0,110	0,114	1,334
2	1.195	0,107	0,109	0,729
3	1.160	0,104	0,104	0,270
4	1.080	0,096	0,100	1,373
5	1.129	0,101	0,097	1,439
6	1.081	0,096	0,093	1,107
7	980	0,087	0,090	1,056
8	974	0,087	0,088	0,230
9	922	0,082	0,085	1,019

The output of the data calculations above when shown in graphical form are as follows:

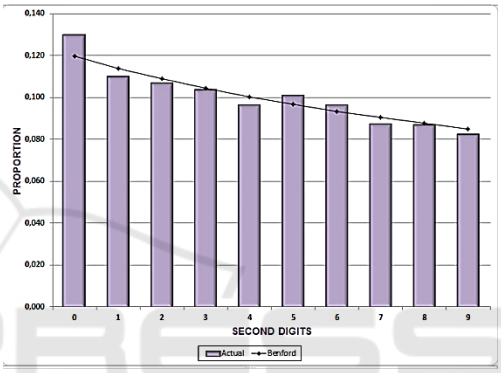

Figure 3 Chart of Business Income *Second Digit Test*

Based on the calculation in table 5 and figure 3 above, obtained the results of the test z with $\alpha = 0,05$ indicates there is a value that is above 1.96, the taxpayer whose second digit of business income contains the number 0. This is an alarm for AR because it means that there are 1.455 potential taxpayers who are not properly reporting the data of their business income.

According to the third steps, the MAD calculation results with a value of 0,00075, this means that the pattern is acceptable conformity to Benford's Law Model. Subsequent testing with the method of calculating X^2 based on working paper in Microsoft Excel 2010 obtained value of 88,06509. This value is smaller than Chi table of 112,021 (DF = 89; $\alpha = 0,05$) which means this pattern is similar to Benford's Law Model (Ho accepted) pattern. The last test based on the First-Two Digits Test (F2D) when presented in graphical form is as follows:

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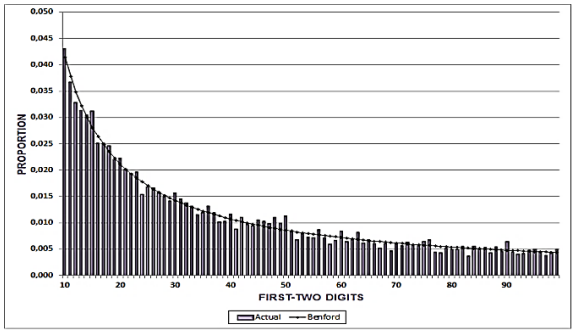

Figure 4 Chart of Business Income *First Two Digit Test*

Based on the calculation in the table and the figure above, the results obtained by the z test with α = 0,05 indicates there is a value that is above 1,96, the taxpayer the first two digits of its business income contained the number 15 as many as 349, the first two digits of business income contains number 48 as many as 124 Taxpayers, the first two digits of its business income contained the number 50 as many as 127 Taxpayers, the first two digits of its business income contained 69 as many as 53 Taxpayers, the first two digits of its business income contained 83 as many as 42 Taxpayers, the first two digits of business income contains the number 90 as many as 72 Taxpayers. This is an alarm for AR because it means there are totally 767 taxpayers which are potentially incorrect in reporting their business income data.

Based on the results of First-Digits Tests (FD) tests, Second-Digits Tests (SD), First-Two Digits Tests (F2D) that have been performed on the data of tax payers business income, then obtained repeatedly data for second digit taxpayers contains 0 and the first two digits contain numbers 50 and 90 (Taxpayers who always appear during the third test done) as many as 199 Taxpayers. 199 Taxpayers who always appear in it test, indicated disobedient in reporting its business income on the annual tax return.

The similiar testing steps are also carried out on the post cost of purchase/raw materials, salary costs, transportation costs as well as rental expense and obtained the output of potensial taxpayer who don't properly in fulfilling their tax obligations with the following details:

Table 6 Summary of Non Compliance Tax Payers Based on *Benford's Law Model*

No	**Pos SPT**	**Benford's Test Result**	***Tax Amnesty Confirmation***	**% Validity of *Benford's Test***
	1	**2**	**3**	**4 =(3:2)**
1	Busines Income	199	142	71%
2	Purchase of Raw Material	81	55	68%
3	Salary Cost	98	74	75%
4	Transportation Cost	704	513	72%
5	Rent Expense	318	257	80%
	Total	**1.400**	**1.041**	**74%**

According on the data in table 6 above, the next step for this research is to compare the list of taxpayers who indicated do not comply in fulfilling their tax obligations with the list of taxpayers who have followed the tax amnesty program based on data at the DGT Regional South Jakarta II (Taxpayer identity details can not be displayed because it is included in the secret of office as stipulated in Article 34 of the Law of KUP). Based on the confirmation, it can be informed that 74% taxpayers contained in the table above were also undertaking the tax amnesty program in accordance with Law Number 11 of 2016. This proves that Benford's Law Model can be used to detect non-compliance of Taxpayers in fulfilling their tax obligations.

Based on the process above, the implementation of Benford's Law Model has several advantages compared with BBM method in detecting tax payer's non compliance for several reasons:

a. Understanding of taxpayer transaction which is indicated disobedient with tax rules does not require in-depth analysis and time consuming than BBM method, so that AR can be more focus in monitoring taxpayer's compliance;
b. This method can be applied to detect non-compliance for all criteria of various types from Taxpayer's Income (Taxpayers who have certain gross business income, final and non final categories of income), Individual and Corporate Taxpayers;
c. Processing data can be done independently by each KPP Pratama without having to wait for feeding data and direction from Kanwil;
d. This method can be applied to detect non-compliance for the newly registered tax payers.

6 CONCLUSION, RECOMMENDATION, AND LIMITATIONS

6.1 Conclusion

According on the results of research that has been done, the implementation of BBM method in identifying the risk of non-compliance of registered taxpayers at Small Tax Office in the DGT Regional South Jakarta II do not run effectively and require a new method for monitoring Tax Payer's compliance. This occurs because the nature of the BBM method is limited to the initial indication of non-compliance that requires further actions, the refutation of the taxpayer on the results of the method of BBM when confirmed to the taxpayer, the majority of AR has not understood the technical implementation and understanding related to the concept of method, limited capacity and capability of AR in performing its role and function in monitoring taxpayer's compliance.

As an alternative to the practice of BBM methods that have proven to be ineffective in conducting monitoring taxpayers compliance, Researchers try to use new methods to identify non-compliance by using Benford's Law Model. Based on the testing stages conducted on the items in the corporate annual income tax returns of 1771 which includes the business income post, the cost of purchasing materials/merchandise, the cost of salary, the transportation cost, and the rent fee, the result is the data of the indication taxpayer who potentially do not correctly in fulfilling their tax obligations. The data above then compared to the list of taxpayers who have attended the tax amnesty in accordance with Law Number 11 Year 2016. Based on the comparison list, it can be informed that 74% of taxpayers based on the data referred to also follow the tax amnesty program. This finding corroborate the evidence that the Benford's Law Model can be used to detect non-compliance of Taxpayers in fulfilling their tax obligations.

6.2 Recommendation

Based on the output of research that has been done, several factors causing ineffective Benchmark Behavioral Model method in identifying non tax compliance among others is due to the inability of AR in understanding the technical implementation of the BBM method and limited AR authority as the front guard in collecting state revenues. This limited capacity of AR can be improved by conducting various capacity building activities such as In House Training, Workshop, Education and Training, courses, and discussion forums to discuss the current various of tax issues. The limitation of AR authority in conducting the audit can be improved by issuing a stronger legal stand in case of auditing process that can be done by AR. In addition, the DGT should also design new strategies and methods in conducting compliance oversight of taxpayers. The method should be easy to implement, the data is valid in identifying taxpayer's obedience and can adjust to various conditions of dynamics and potential of taxpayer.

6.3 Research Limitations

This study has limitations in terms of data collection and research results that have been done where the source data derived from the elements of corporate annual income tax 1771 is processed with the assumption that the values listed the same as listed on the physical financial statements of Taxpayers. In addition, this research is done by taking the object on KPP Pratama at DGT Regional South Jakarta II. Each region has characteristics and potentials that vary from one to others, so the results of research with the same topics and methods can generate output that are different from this research.

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