

315 matches from 84 sources, of which 10 are online sources.

PlagLevel: **11.0%**

- ☑ [0] (18 matches, **4.2%**) from a PlagScan document of your organisation...E1\_R\_Bu Wiwik.pdf" dated 2020-02-07
- ☑ [1] (16 matches, **3.7%**) from a PlagScan document of your organisation... updated ref.docx" dated 2019-08-30
- ☑ [2] (15 matches, **2.5%**) from your PlagScan document "Journal - F...pment Boom -.docx" dated 2020-04-26
- ☑ [3] (14 matches, **2.3%**) from your PlagScan document "Paper Maestro\_220420v2.docx" dated 2020-04-23
- ☑ [4] (11 matches, **1.7%**) from your PlagScan document "accounting ...vised. Tessa.docx" dated 2020-04-05
- ☑ [5] (10 matches, **1.4%**) from a PlagScan document of your organisation...a Bali Resort.pdf" dated 2019-06-29
- ☑ [6] (7 matches, **1.5%**) from your PlagScan document "FULL PAPER ...(Revision) 1.docx" dated 2020-04-05
- ☑ [7] (9 matches, **1.1%**) from a PlagScan document of your organisation...SIS SISWANTO.docx" dated 2019-12-13
- ☑ [8] (6 matches, **1.1%**) from your PlagScan document "Rev4-Journa...FORE AND AFT.docx" dated 2020-04-22
- ☑ [9] (6 matches, **0.9%**) from a PlagScan document of your organisation...zuura-Revised.pdf" dated 2019-09-30
- ☑ [10] (6 matches, **0.9%**) from a PlagScan document dated 2018-05-11 09:37
- ☑ [11] (6 matches, **0.8%**) from your PlagScan document "Accounting ...) - Revision.docx" dated 2020-04-06
- ☑ [12] (6 matches, **1.0%**) from a PlagScan document of your organisation...C\_22\_Bu Wiwik.pdf" dated 2020-02-07
- ☑ [13] (6 matches, **1.0%**) from your PlagScan document "Christian S...aper (2) (1).docx" dated 2020-04-27
- ☑ [14] (6 matches, **0.9%**) from a PlagScan document of your organisation... Nur Hasanah.docx" dated 2020-03-29
- ☑ [15] (5 matches, **0.8%**) from your PlagScan document "Profitabili...Fried Chicke.docx" dated 2020-03-30
- ☑ [16] (4 matches, **0.7%**) from a PlagScan document dated 2020-04-19 21:04
- ☑ [17] (4 matches, **0.6%**) from a PlagScan document dated 2018-10-01 13:27
- ☑ [18] (4 matches, **0.6%**) from a PlagScan document dated 2018-08-03 09:56
- ☑ [19] (4 matches, **0.6%**) from a PlagScan document dated 2017-11-23 12:16
- ☑ [20] (5 matches, **0.6%**) from a PlagScan document dated 2020-03-03 06:17
- ☑ [21] (3 matches, **0.5%**) from a PlagScan document dated 2018-05-16 03:38
- ☑ [22] (4 matches, **0.4%**) from a PlagScan document dated 2019-01-22 20:05
- ☑ [23] (3 matches, **0.5%**) from a PlagScan document dated 2018-08-15 11:05
- ☑ [24] (4 matches, **0.4%**) from a PlagScan document dated 2017-11-22 19:45
- ☑ [25] (3 matches, **0.4%**) from a PlagScan document dated 2019-07-30 09:02
- ☑ [26] (3 matches, **0.4%**) from www.researchgate.net/profile/Nurulhidayu...MPIRICAL-ANALYSIS-ON-KHEE-SAN-BERHAD.pdf
- ☑ [27] (3 matches, **0.4%**) from a PlagScan document dated 2018-04-10 12:11
- ☑ [28] (4 matches, **0.4%**) from a PlagScan document dated 2018-02-12 17:37
- ☑ [29] (4 matches, **0.4%**) from a PlagScan document dated 2019-03-22 03:36
- ☑ [30] (3 matches, **0.4%**) from a PlagScan document dated 2017-11-22 19:47
- ☑ [31] (3 matches, **0.4%**) from a PlagScan document dated 2019-01-22 20:05
- ☑ [32] (3 matches, **0.4%**) from a PlagScan document dated 2019-01-22 20:05
- ☑ [33] (2 matches, **0.4%**) from a PlagScan document dated 2018-09-25 08:29  
(+ 2 documents with identical matches)
- ☑ [36] (4 matches, **0.5%**) from a PlagScan document dated 2017-07-10 10:21
- ☑ [37] (3 matches, **0.5%**) from a PlagScan document of your organisation...to\_2019\_TD\_R1.pdf" dated 2020-01-30
- ☑ [38] (3 matches, **0.4%**) from a PlagScan document dated 2016-04-05 07:26
- ☑ [39] (1 matches, **0.3%**) from a PlagScan document dated 2019-05-14 07:54
- ☑ [40] (2 matches, **0.3%**) from a PlagScan document dated 2019-08-07 10:53
- ☑ [41] (3 matches, **0.5%**) from a PlagScan document dated 2019-05-14 23:11
- ☑ [42] (3 matches, **0.3%**) from a PlagScan document dated 2019-01-22 20:05
- ☑ [43] (2 matches, **0.3%**) from a PlagScan document dated 2018-12-06 05:57
- ☑ [44] (3 matches, **0.3%**) from a PlagScan document dated 2018-04-11 14:53
- ☑ [45] (3 matches, **0.3%**) from a PlagScan document dated 2018-03-15 06:35
- ☑ [46] (3 matches, **0.3%**) from a PlagScan document dated 2018-01-28 09:43
- ☑ [47] (3 matches, **0.4%**) from a PlagScan document dated 2017-09-08 16:40
- ☑ [48] (3 matches, **0.3%**) from a PlagScan document dated 2017-07-09 10:04
- ☑ [49] (3 matches, **0.4%**) from your PlagScan document "(REVISION 1... CONTROL SYS.docx" dated 2020-04-08
- ☑ [50] (2 matches, **0.3%**) from a PlagScan document dated 2019-03-08 09:46
- ☑ [51] (3 matches, **0.3%**) from www.researchgate.net/publication/3041076...electronic\_cigarette\_prevention\_messages
- ☑ [52] (2 matches, **0.3%**) from a PlagScan document dated 2018-11-21 01:48
- ☑ [53] (3 matches, **0.3%**) from a PlagScan document dated 2018-02-13 17:42
- ☑ [54] (3 matches, **0.4%**) from www.researchgate.net/publication/2608084...\_From\_a\_Virtual\_Store\_Experimental\_Study
- ☑ [55] (3 matches, **0.4%**) from mafiadoc.com/plain-packaging-of-cigarett...ic-scholar\_59944c791723ddca695471a8.html
- ☑ [56] (2 matches, **0.4%**) from your PlagScan document "(3rd Revisi...n Disclosure.doc" dated 2020-04-24
- ☑ [57] (2 matches, **0.3%**) from a PlagScan document dated 2018-09-20 10:09

- ☑ [58] (3 matches, **0.3%**) from [www.researchgate.net/profile/Susan\\_Mello...dults/links/55241eba0cf2caf11bfcc079.pdf](http://www.researchgate.net/profile/Susan_Mello...dults/links/55241eba0cf2caf11bfcc079.pdf)
- ☑ [59] (2 matches, **0.2%**) from a PlagScan document dated 2019-08-06 14:04
- ☑ [60] (2 matches, **0.2%**) from a PlagScan document dated 2018-12-06 05:59
- ☑ [61] (2 matches, **0.2%**) from [www.researchgate.net/profile/Jan\\_Wium/pu...4076ed0cf2736761c27893.pdf?inViewer=true](http://www.researchgate.net/profile/Jan_Wium/pu...4076ed0cf2736761c27893.pdf?inViewer=true)
- ☑ [62] (2 matches, **0.3%**) from a PlagScan document dated 2019-05-14 23:10
- ☑ [63] (2 matches, **0.3%**) from a PlagScan document dated 2019-04-15 09:03
- ☑ [64] (2 matches, **0.2%**) from a PlagScan document dated 2018-07-26 11:14
- ☑ [65] (1 matches, **0.1%**) from a PlagScan document dated 2018-06-21 15:35
- ☑ [66] (2 matches, **0.3%**) from a PlagScan document dated 2019-01-22 20:05
- ☑ [67] (2 matches, **0.3%**) from a PlagScan document dated 2019-01-22 20:05
- ☑ [68] (2 matches, **0.3%**) from a PlagScan document dated 2019-01-22 20:05
- ☑ [69] (2 matches, **0.3%**) from a PlagScan document dated 2019-01-22 20:05
- ☑ [70] (2 matches, **0.3%**) from a PlagScan document dated 2019-01-22 20:05
- ☑ [71] (2 matches, **0.3%**) from a PlagScan document dated 2018-05-21 08:21
- ☑ [72] (1 matches, **0.2%**) from a PlagScan document dated 2018-02-27 07:09
- ☑ [73] (2 matches, **0.3%**) from [www.researchgate.net/publication/3087558...upplemental\\_Nutrition\\_Assistance\\_Program](http://www.researchgate.net/publication/3087558...upplemental_Nutrition_Assistance_Program)
- ☑ [74] (2 matches, **0.3%**) from [www.researchgate.net/publication/3173400...rettes\\_samples\\_by\\_molecular\\_fluorescence](http://www.researchgate.net/publication/3173400...rettes_samples_by_molecular_fluorescence)
- ☑ [75] (1 matches, **0.2%**) from a PlagScan document dated 2019-08-08 11:56
- ☑ [76] (1 matches, **0.1%**) from a PlagScan document dated 2018-06-14 11:57
- ☑ [77] (1 matches, **0.2%**) from [www.researchgate.net/publication/3179618...e\\_efficiency\\_of\\_banks\\_in\\_ASEAN\\_countries](http://www.researchgate.net/publication/3179618...e_efficiency_of_banks_in_ASEAN_countries)
- ☑ [78] (1 matches, **0.1%**) from a PlagScan document dated 2019-01-14 00:40
- ☑ [79] (1 matches, **0.1%**) from a PlagScan document dated 2018-12-17 21:52
- ☑ [80] (1 matches, **0.1%**) from a PlagScan document dated 2018-08-06 04:24
- ☑ [81] (1 matches, **0.1%**) from a PlagScan document dated 2019-08-08 06:59
- ☑ [82] (1 matches, **0.1%**) from a PlagScan document dated 2019-04-17 01:49
- ☑ [83] (1 matches, **0.1%**) from [www.researchgate.net/publication/2423492...anagement\\_in\\_financial\\_services\\_industry](http://www.researchgate.net/publication/2423492...anagement_in_financial_services_industry)

## Settings

Sensitivity: *Medium*

Bibliography: *Consider text*

Citation detection: *Reduce PlagLevel*

Whitelist: --

## Analyzed document

=====1/16=====

Analysis of Indonesian 2014 Cigarette Packaging Regulation Impact on PT Hanjaya Mandala Sampoerna's Financial Performance

Wiwiek Mardawiyah Daryanto

Sekolah Tinggi Manajemen IPMI

Email: [6] [13] [56] [2] ... [wiwiek.daryanto@ipmi.ac.id](mailto:wiwiek.daryanto@ipmi.ac.id)

Hansen Leonard

Sekolah Bisnis dan Manajemen, Institut Teknologi Bandung

Email: [6] [13] [56] [4] ... [hansen\\_andreas@sbm-itb.ac.id](mailto:hansen_andreas@sbm-itb.ac.id)

Henry Wijaya

Sekolah Bisnis dan Manajemen, Institut Teknologi Bandung

Email: [henry\\_wijaya@sbm-itb.ac.id](mailto:henry_wijaya@sbm-itb.ac.id)

## Abstract

Smoking is one of the recreational things people do that has existed since ancient times. However, in recent years, many movements and research have claimed that cigarettes are having more negative rather than positive, specifically in health. In order to limit cigarette distribution, Indonesian Health Ministry issued a special regulation in 2014 by intervening on how cigarette companies market their product. The government obliges every tobacco distributed in Indonesia to be packaged by a package which 40% of it consists of scary pictures of disease caused by smoking. As the leading tobacco company in Indonesia, PT Hanjaya Mandala (HM) Sampoerna faces the risk of declining cigarette sales. This journal aims to analyze how this regulation impacted PT HM Sampoerna's financial performance on activity, liquidity, solvency, and profitability using financial ratio analysis. PT HM

Sampoerna's observed period of annual financial reports is divided into two periods, 2010 – 2013 for the period "before" and 2015 – 2018 for the period "after" the implementation of the regulation. Those reports are then extracted into financial ratios in order to reflect the company's performance. The extracted data will be validated through statistical analysis T-test method in order to prove the journal hypotheses about the significance of the implemented regulation on PT HM Sampoerna's financial performance. [The result in this journal indicates that there are significant differences in PT HM Sampoerna's financial ratios before and after the regulation was implemented.](#) [3] [64] [20] This journal is expected to give insight for PT HM Sampoerna's management so that they can evaluate how its business is affected and design appropriate further planning and decisions. The Indonesian government can also be advised on how successful the regulation is in reducing the number of cigarette consumption in Indonesia.

Keywords: Financial ratios, Company performance, Financial report, Indonesia's cigarette regulation, PT HM Sampoerna.

=====2/16=====

## Introduction

Cigarettes are products of tobacco that are intended to be burnt and inhaled. It includes clove cigarettes, white cigarettes, cigars, or other forms produced from the *Nicotiana tabacum*, *Nicotiana rustica*, and other species or synthetic ones that the smoke contains nicotine and tar, with or without additional ingredients. In 2014 cigarette industry was one of the biggest contributors for Indonesian income with approximately a total of 248 trillion rupiah value of industrial-scale which was on 4th position after State Owned Enterprise that had 1,890 trillion rupiah value, real estate and construction with 907 trillion value, and pharmaceutical with 307 trillion value. Cigarette industry had grown annually from 2009 - 2014 by 14.6% sales increase and an 8.7% price increase, bigger than any other industry. (Ernst & Young, 2015)

Based on Indonesia's basic health research report (Riskesmas, 2018), there is an increased population of people around 10 - 18 years old that consume cigarettes from 7.2% in 2013 to 9.1% in 2018. This tobacco consumption leads to many health issues, such as chronic disease, infectious disease, and also mortality. In November 2019, it was found that tobacco consumption caused 7 million worldwide deaths per year and if the habit doesn't change, it will become 8 million worldwide deaths per year by 2030. [Another effect of cigarettes is exposure to secondhand smoke that has been estimated by 41000 deaths per year among adults in the United States which is divided into 7333 annual deaths from lung cancer and 33951 annual deaths from heart disease \(CDC, 2020\).](#) [51] [54] On average, Indonesian people consume about 5.6 cigarettes/day/person. Since its biggest mortality impact, Indonesia Health Ministry made regulation of Health Ministry No. 28 of 2013 about the inclusion of health warnings and health information on tobacco product packaging which covers 40% of the package by scary pictures of disease caused by smoking. The regulation was established in order to generate people's awareness about the worst health impact of cigarettes so that the number of cigarette consumption can be decreased.

However, the government policy itself is like a double-edged sword which will hurt the overall sales of the tobacco industry. As one of the major Indonesian tobacco companies, PT Hanjaya Mandala Sampoerna Tbk. is the business that will be analyzed in this journal. PT HM Sampoerna, which was first founded in 1913, is a company that produces tobacco and its derivatives such as clove and white cigarettes. In 2005, about 40% of PT HM Sampoerna stocks were sold to PT Philip Morris. This event made PT Philip Morris Indonesia became the major shareholder with 92.5% ownership. PT HM Sampoerna was also appointed to be

the official distributor of Marlboro in Indonesia. Based on the Sampoerna Reports 2018

=====3/16=====

Results, they scored 33% of market share, leaving behind PT Gudang Garam, PT Djarum, and PT Bentoel Internasional Investama.

#### Research Question and Objective

This research aims to answer the question regarding how significant government policy (regulation of Health Ministry No. 28, 2013) is in affecting the cigarette industry's financial condition, which in this case the answer will be represented by PT HM Sampoerna's financial condition. The financial condition analysis itself will be broken down into several financial ratios that define 1) activity, 2) liquidity, 3) solvency, and 4) profitability of the company.

#### Deeper Look into National Regulation of Cigarettes

All cigarette products are being ruled by **Government Regulation of the Republic of Indonesia** number 109 of 2012 about **Safety Materials Containing Addictive Substances Forming Tobacco Products for Health**.<sup>[13]</sup> The Implementation of securing the use of materials containing addictive substances in the form of tobacco products for health is directed so as not to disturb and endanger health individuals, families, communities, and the environment. Then in order to decrease cigarette consumption and give specific elaboration about the regulation of cigarette products packaging, the Indonesia Ministry of Health launched **Regulation of the Minister of Health Republic of Indonesia Number 28 of 2013 About Health Warning and Health Information on Package of Tobacco Product**.<sup>[13]</sup> The Arrangement for the inclusion of Health Warning and Health Information on Tobacco Product Packaging aims to provide guidelines for the Tobacco Products industry to carry out inclusion Health Alert and Health Information on Product Packaging of Tobacco. The health warnings have to consist of 5 (five) different types of disease pictures, which are listed on every 1 (one) variant of Tobacco Products with each portion being 20% (twenty percent) of the sum of each variant Tobacco products at the same time. **The health warning in form or disease picture is listed on the top of the front and backside of the packaging by 40% (forty percent) each, and at the top of the picture have to contain the words "[65] [31] [32] [47] ...PERINGATAN"** by using white Arial bold typeface on a black base with a letter size of 10 (ten) or proportion to the packaging.

#### Indonesian Cigarettes Industry

Cigarette industry is one of the 5 biggest tax contributors in Indonesia's economy. Based on Ernst and Young report (2015), in 2014 cigarettes industry gave 131 trillion rupiah equals to 52.7% tax contribution toward its business value to Indonesia government, followed by real estate and construction by 15.7%, state-owned business sector with 8.5%, telecommunication sector with 3.0%, and pharmaceutical with 0.9%. Besides the cigarette industry itself, tobacco and clove plantations as the basic ingredients of cigarettes contribute approximately 14 - 30 trillion rupiah per year to Indonesia's taxation income and provide about 1.7 million employment for farmers with 51 - 54 million rupiah farmer's income per hectare of plantation. Building upon the huge number of contributions that come from the cigarette industry and the source of cigarettes itself, we can see that cigarettes are very valuable for Indonesia's economic growth.

#### Cigarettes Industry Contribution in Other Countries

=====4/16=====

Cigarettes also **play an important role in the global economic**, for example, China as the second biggest high-income nation with \$13,608,152 million USD Gross Domestic Income (GDP) made an increment to its tobacco taxation in 2015 **and resulted in 14% cigarette's tax revenue increase from 740 billion in 2014 to 842 billion chinese yuan in 2016**.<sup>[27]</sup> This tax accession gave additional 101 billion Chinese yuan tax revenue which allowed tobacco to be a potential sector for China to achieve sustained economic development goals (Goodchild & Zheng, 2018). Contrary to China, the United States as the largest high-income nation experienced a decrease of cigarette tax revenue from \$15.56 billion USD in 2014 to \$14.10 billion USD in 2016 (The White House, 2020), while in 2017 the US tobacco excise tax was \$1.00 per pack cigarette which only equal to 16% of all excise tax revenue (Tax Policy Center, 2020).

#### Criterion of Company Performance

Because of its complexity, modern company's performance analysis can be approached comprehensively with many dimensions, however mainly it is classified into 2 main areas which are Financial Performance and Strategic Performance. The first one governs the profitability performance, market value performance, and growth performance of the

company. The latter governs over employee satisfaction, customer satisfaction, environmental performance, etc. This journal is focused on Financial Performance which will be identified further in the ratio and tools section. This journal also focuses on the comparative study of Financial Performance of 1 company over some period of time relative to the implementation of cigarette packaging. (Selvam, Gayathri, Vasanth, Lingaraja & Marxiaoli, 2016)

#### Major Events that Happened Over the Observed Years (2010 - 2018)

There were many major events that had to be faced by PT HM Sampoerna, some of which are presented below (Sampoerna Report, 2018).

Table 1 List of Major Events

Year

Events

2012

- Sampoerna initiated 2 hand-rolled kretek manufacturing plant in Lumajang and Probolinggo.

2013

- Sampoerna initiated a hand-rolled kretek manufacturing plant in Jember.
- Sampoerna 100th anniversary.

2014

- Sampoerna was forced to close 2 of its hand-rolled manufacturing plants in Jember and Lumajang. This was triggered by the low demand for hand-rolled kretek.

2015

- Sampoerna issued 269,723,076 new stocks with par value 100 full rupiah per stock.

2016

- Sampoerna split its stocks with a 1:25 ratio and nominal value 4 full rupiah per stock.

#### Methodology

=====5/16=====

This journal uses a descriptive quantitative analysis method of cigarette industry financial performance and comparative analysis before and after packaging regulation of cigarettes was applied. Raw data that is used in this journal is based on the Annual Financial Report of PT HM Sampoerna from 2010 - 2013 which reflects the condition before the implementation of regulation and 2015 - 2018 which reflects the company's condition after the implementation of the regulation.[1] [5] [0] [37] ... Since the year 2014 was the year when the regulation was implemented, this study assumed that the data in 2014 might be biased. Therefore 2014 data will not be used for data analysis.[80] [30]

#### Ratio Analysis

This journal uses financial ratio on activity (Inventory Turnover Ratio, Total Asset Turnover Ratio, and Collection Period), liquidity (Cash Ratio and Current Ratio), solvency (Total Equity to Total Asset Ratio, Liability to Equity Ratio, Liability to Total Asset Ratio), and profitability (Ratio on Investment, Ration on Equity, Ration on Assets) to measure financial performance of PT HM Sampoerna.[1] [4] [3] [2] ... The ratio is calculated from PT HM Sampoerna's annual financial report. Then the ratio of period 2010 - 2013 is compared with period 2015 - 2018.

#### Statistical Analysis

The final analysis is to know if there was a significant impact of cigarette packaging policy on PT HM Sampoerna profitability in the period before and the period after the application of policy. The significance analysis was conducted using Paired Samples t-test analysis on PT HM Sampoerna profitability, liquidity, activity, and solvency ratios in period 2010 - 2013 and period 2015 - 2018.[3] [12] This journal uses the SPSS version 25 to run the Paired Samples t-test.

#### Research Model

Since this journal is addressed to measure how far and big the effect of cigarette regulation on PT HM Sampoerna financial condition, the research model will be focused on analyzing the financial performance ratio. The research model is adapted from another comparative study of financial performance in the Indonesia pharmaceutical industry before and after the implementation of National Health Insurance that was being done by Daryanto and Meriana (2019).[0] [1] [2] [3] ... Even though the study focused on the health sector which has different objects of research, the basics of this journal still share the same perspective in the way of financial

performance comparison before and after a particular implementation of a government policy implementation. [76] [0] The summary of the research model is provided in the picture below.

Figure 1 Significant Differences Identification Method

=====6/16=====

### Variables and Hypothesis

In order to answer the research question regarding the significance of cigarette regulation to PT HM Sampoerna financial condition, this research uses various variables on analyzing profitability, liquidity, activity, and solvency of financial performance. Then the variables are compared between the period "before" and period "after" the implementation of Indonesia cigarette packaging regulation to verify hypotheses on the significant differences. Those variables definitions and hypotheses are visible in the table below.

Table 2 Ratios Description and Hypotheses

Ratios

Description

Hypotheses

Profitability

Gross Profit

100%

Gross profit reflects on how much a company has generated profit that covers its cost of sale, compares in percentage by the amount of net sales revenues

Significant difference will be identified

Profit Margin

100%

Profit margin reflects on how much percentage of net income that has been generated by a company compares to amount of net sales revenues

Significant difference will be identified

Return on equity

$h h ' 100\%$

Return on equity reflects on how much a company has generated profit by the equity invested by

Significant difference will be identified

Before Implementation of Cigarette Packaging Regulation

After Implementation of Cigarette Packaging Regulation

Financial Performance

Ratio Analysis on:

1. Activity 3. Solvency

2. Liquidity 4. Profitability

Statistical Comparison

Analysis using

Independent T-Test

Significant difference

No Significant difference

=====7/16=====

shareholders. This value is very important to the shareholder because it shows the company's shareholder value creation.

#### Return on assets

100%

Return on assets reflects on how well a company has generated profit based on all the financial resources invested in the company. [0] (Debt and Equity)

Significant difference will be identified

#### Liquidity

##### Cash Ratio

$h + h$

100%

The cash ratio reflects the ability of a company to comply with current obligations with its cash plus cash equivalents. [2] [26] [0] [43] ... It also acts as a warning for due debt or unused cash.

Significant difference will be identified

##### Current Ratio

100%

The current ratio reflects the ability of a company to comply with current obligations with its current assets. [0] [26] [9] [21] ...

Significant difference will be identified

#### Activity

##### Inventory Turnover

ratio

Inventory turnover ratio shows how well the company sold its product compared to inventory at hand and how well the company can manage its inventory. [1] [7]

Significant difference will be identified

##### Total asset turnover

ratio

100%

The total asset turnover ratio reflects the ability of a company to generate sales revenue by its possessed assets. [0] [9] [21] [12] ...

Significant difference will be identified

Collection period

The collection period indicates the amount of time needed for a company to receive a cash payment from its account receivable. [25] [0]

Significant difference will be identified

=====8/16=====

Solvency

Total equity to total asset ratio

100%

Total equity to total asset ratio reflects the amount or percentage of assets that can be claimed by shareholders. [0] [11] [12] [3] ...

Significant difference will be identified

Liability to equity ratio

h h ' 100%

The liability to equity ratio is used to reflect on how big the risk company faced from the company standpoint. [0] [3] [53] It compares a company's total liability with its equity.

Significant difference will be identified

Liability to total asset ratio

100%

The liability to total asset ratio shows the percentage of assets that are obtained by liabilities or debt. [0] [23] [11] [17] ...

Significant difference will be identified

Result and discussion

Based on ratio analysis on financial performance it can be seen that there were several changes in the financial condition of PT HM Sampoerna. [8] [5] [4] [7] ... After the implementation of cigarette packaging regulation, some ratios were increasing but most of them were decreasing. By using a Paired t-test analysis, it can be shown that the implementation of the regulation is affected by a significant alteration of several variables. The result of the analysis is provided in the table below.

Table 3 Ratios Calculation and Significant Difference Identification Result

Ratios  
Period  
Mean  
Standard  
Deviation  
Sig. (2-  
tailed)  
Alpha  
Description

Profitability  
Gross Profit  
2010-2013  
28.1125  
1.07884  
0.013  
005

Significant difference  
identified  
2015-2018  
24.4350  
0.45317  
Profit Margin  
2010-2013  
14.8525  
0.34731  
0.003  
0.05

Significant difference  
identified  
2015-2018  
12.6175  
0.72459  
Return on  
Equity  
2010-2013  
73.0750  
6.96260  
0.000  
0.05

Significant difference  
identified  
2015-2018  
36.2850  
2.6577  
Return on  
Assets  
2010-2013  
37.5900  
4.49063  
0.014  
0.05

Significant difference  
identified  
2015-2018  
28.9300  
1.18364

=====9/16=====

Liquidity  
Cash Ratio  
2010-2013  
17.3925  
13.56501  
0.095  
0.05  
Significant difference  
not found  
2015-2018  
102.170  
58.84039  
Current Ratio  
2010-2013

172.890

7.83324

0.005

0.05

Significant difference

identified

2015-2018

534.387

93.07004

Activity

Inventory

Turnover Ratio

2010-2013

3.3738

0.56820

0.288

0.05

Significant difference

not found

2015-2018

4.1700

0.85765

Total Asset

Turnover

2010-2013

2.4812

0.26191

0.232

0.05

Significant difference

not found

2015-2018

2.2941

0.03985

Collection

Period

2010-2013

7.7509

0.44356

0.018

0.05

Significant difference

identified

2015-2018

16.3617

3.34081

Solvency

Total Equity to

Total Asset

Ratio

2010-2013

51.2 [1] [8] [3] ...3525

1.51031

0.001

0.05

Significant difference

identified

2015-2018

79.8925

3.34081

Liability to

Equity Ratio

2010-2013  
94.8500  
5.67342  
0.001  
0.05  
Significant difference  
identified

2015-2018  
25.3425  
5.40369

Liability to  
Total Asset  
Ratio

2010-2013  
48.416450  
1.50680  
0.001  
0.05

Significant difference  
identified

2015-2018  
20.1075  
3.46066

#### The Trend of Profitability

Table 4 The Trend of Profitability

Year

2010

2011

2012

2013

2014

2015

2016

2017

2018

Profitability

Gross Profit (%)

29.11 [16] [79] [78] ...17

28.75

27.78

26.75

25.41

24.43

24.99

24.44

23.88

Profit Margin (%)

14.80

15.26

14.93

14.42

12.62

11.63

13.37

12.79

12.68

Return on Equity (%)

62.86

78.28

74.73

76.43

75.43  
 32.37  
 37.34  
 37.14  
 38.29  
 Return on Assets (%)  
 31.28  
 41.72  
 37.89  
 39.47  
 35.87  
 27.26  
 30.02  
 29.37  
 29.05

=====10/16=====

### Figure 2 The Trend of Profitability

Based on the t-test result, all of the profitability-related ratios show significant differences (p-values 0.05) with decreasing mean values. **This indicates that there is a significant negative impact of the regulation on the PT HM Sampoerna's profitability.** [72] [19] [38] [75] ... Delving further into the ratios, **it can be inferred that the gross profit average value decreased from 28.20** 11% to 24.44%. Even though the sales revenue kept on increasing over the observed years, gross profit percentage deviation shows disproportionate growth in the cost of sales relative to the sales revenue (CoS growth rate higher than Sales Revenue growth rate). This also conforms with the decreasing profit margin average value which is 14.85% turned into 12.62% but accompanied by positive net profit growth. The additional information about sales is provided below (in billion rupiahs).

Table 5 Additional Data Related to Profitability

Year  
 2010  
 2011  
 2012  
 2013  
 2014  
 2015  
 2016  
 2017  
 2018  
 Sales  
 43382  
 52857  
 66626  
 75025  
 80690  
 89069  
 95467  
 99091  
 106742  
 Cost of Sales  
 30726  
 37661  
 48119  
 54954  
 60190  
 67305  
 71612  
 74875  
 81251  
 Gross Profit  
 12656

15196  
 18507  
 20071  
 20500  
 21764  
 23855  
 24216  
 25491  
 Net Income  
 43382  
 52857  
 66626  
 75025  
 80690  
 89069  
 95467  
 99091  
 106742

In this journal, the return of investment is expressed by 2 ratios which are return on equity and return on assets. [33] [16] ... Return on equity average value decreased from 73.07% to 36.28% and return on assets decreased from 37.59% to 28.93%. The negative growth on RoE and RoA is caused by either faster assets and equity growth or slower net income growth. Referring to table 5, in 2015, there was a big increase in assets and equity value because the company issued new stocks. Even though the company was slowly increasing its RoA and RoE in 2015 - 2018, it is considered low relative to the 2010-2013 period. It indicates a comparatively slower utilization of the investment which can be triggered by many things such as the  
 =====11/16=====  
 geopolitical condition of Indonesia (tax policy and regulation), de-acceleration growth of Indonesia tobacco market, and currency instability.

#### The Trend of Liquidity

Table 6 The Trend of Liquidity

Year  
 2010  
 2011  
 2012  
 2013  
 2014  
 2015  
 2016  
 2017  
 2018  
 Liquidity  
 Cash Ratio (%)  
 32. [1] [2] [7] 82  
 24.74  
 6.59  
 5.42  
 0.48  
 37.87  
 78.66  
 115.71  
 176.44  
 Current Ratio (%)  
 161.25  
 177.47  
 177.58  
 175.26  
 152.78  
 656.69  
 523.44

527.23

430.19

### Figure 3 The Trend of Liquidity

The liquidity of PT HM Sampoerna is observed by evaluating its **cash ratio and current ratio**. [1]

T-test result of **cash ratio shows that there is no significant difference** with p-value below 0. [1] [50] [20] [63] ...05 To further **analyze the effect of the 2014 regulation** on PT HM Sampoerna's liquidity, deeper insight is required. [5] It is suspected that the cash ratio of the company varies/deviates greatly which results in an insignificant difference. However, it can be inspected from the table and graph that the cash ratio is decreasing rapidly from 2010 to 2013, with its lowest point at 0.48% in 2014. The "before" period is considered very dangerous because the ratio was way below 100%. PT HM Sampoerna improved its cash position in 2015 - 2018 to a normal position (criterion: cash ratio 100%) by fresh investment.

Contradictory with cash ratio, the result for **the current ratio shows that there is a significant difference with a p-value above 0**. [0] [16] [4] [52] ...05. By using the generally known rule of thumb, the 2010 - 2013 current ratio is at an ideal position with criterion 1.2 current ratio 2.5. However, 2015 - 2018 the current ratio average value is 534.387% which indicates unutilized current assets with criterion current ratio 2.5.

=====12/16=====

From these 2 trends of ratios, it can be inferred that the proportion of cash in current assets in 2010 - 2014 was very low and the proportion of account receivables and inventory were high. With the ever-increasing pressure from government tax and worsened by the 2014 regulation, even though it has good current ratio, PT HM Sampoerna was forced to issue new stocks in order to improve its cash ratio. However, without amending its AR collection and inventory management, the current assets increased to a **very high level and are considered as under-utilized**. [5]

### The Trend of Activity

Based on **paired samples t-test analysis, it can be seen that the trend of activity is the most unaffected performance** with two out of three ratios being insignificantly changed. [1] [7] [5] [29] ... The detailed calculation result and trend on activity-related ratios can be seen below.

Table 7 The Trend of Activity

Year
2010
2011
2012
2013
2014
2015
2016
2017
2018
Activity
Inventory Turnover Ratio
(times)
3. [1] [2] [3] 13
4.23
3.07
3.17
3.45
3.53
3.68
4.15
5.35
Total Asset Turnover
Ratio (times)
2. [3] [4] [9] 11
2.73
2.54

2.74  
 2.84  
 2.34  
 2.25  
 2.3  
 2.29  
 Collection Period (days)  
 8.42  
 7.55  
 7.52  
 7.05  
 4.97  
 19.37  
 19.1  
 13.93  
 13.05

Figure 4 The Trend of Activity

Inventory turnover and total asset turnover ratio have no significant difference before and after the implementation of regulation with p-value 0.001 [1] [3] [5] ...288 and 0.232 in order. The Inventory turnover slowly increased from 3.13 in 2010 to the highest in 2018 with 5.35, however, there was no year on year meaningful change. This indicates that PT HM Sampoerna maintained their sales quite well over the observed years. The total asset turnover shows a stable change on the average value on the period before and the period after which are 2.948 and 2.29. Even

though there was no increase, PT HM Sampoerna could generate their sales in a good proportion to assets value despite the implementation of cigarette package regulation. The collection period is the only one of the activity ratios that have significant alteration after implementation of regulation with 0.018 p-value. This ratio was highly increased from an average of 7.75 in the period 2010-2013 to 16.36 in the period 2015-2018. The higher the number indicates that PT HM Sampoerna had a stretching policy on their annual account receivable return after the application of cigarette packaging regulation. This can be caused PT HM Sampoerna had to increase their account receivable in order to maintain an increasing sales number over the years, for example just right after implemented regulation in 2015 PT HM Sampoerna raised their account receivable against the sales revenue highly which shows that there could be retardation on cigarettes sales.

The Trend of Solvency

The analysis result shows that all ratios of PT HM Sampoerna financial performance on solvency are significantly changed (p-value 0.05) after the implementation of regulation in 2014. As can be seen in the diagram and table below, there is a striking shift for each ratio.

Table 8 The Trend of Solvency

Year  
 2010  
 2011  
 2012  
 2013  
 2014  
 2015  
 2016  
 2017  
 2018  
 Solvency  
 Total Equity to Total Asset  
 Ratio (%)  
 49.1 [1] [2] [8] [15] ...76  
 53.30  
 50.70  
 51.65  
 47.56  
 84.23

80.40  
 79.07  
 75.87  
 Liability to Equity Ratio (%)  
 100. [4] [11] 94  
 87.62  
 97.23  
 93.61  
 110.26  
 18.73  
 24.38  
 26.46  
 31.80

Liability to Total Asset Ratio  
 (%)  
 50. [2] [3] [7] [10] ...23  
 46.70  
 49.30  
 48.35  
 52.44  
 15.77  
 19.60  
 20.93  
 24.13

Figure 5 The Trend of Solvency

Total equity to total asset ratio indicates the number of assets in percentage that can be claimed by shareholders. [0] [11] The higher the number means PT HM Sampoerna has an increase in

shareholders' equity, therefore more assets can be claimed by the shareholders itself. Referring to the result in the diagram, it shows that there was an increase in average number of total equities to total asset ratio about 28% from 51% in 2010-2013 to 79% in 2015-2018 with 0. [15] 001 p-value among those groups. It can be concluded that PT HM Sampoerna got a lot of additional shareholders' investment during that period. [11]

Liability to equity and liability to total asset ratio were significantly decreased in order from 94.85% to 25.34% and 48.64% to 20.10% with 0.001 p-value both. These two ratios are referring to risk that a company has from its liabilities or debts. The lower liability to equity ratio means the lower risk of liability that has to be faced by the company's shareholders equity as well as the lower liability to total asset ratio tells that fewer assets are obtained by debts. As known before that the total number of shares was increased highly because of stock sales, this is suspected to be the main reason why PT HM Sampoerna could decrease the liability proportion against its equity.

Limitation

This journal analyzes only one cigarette company, as the implementation of Indonesia Health Ministry regulation was aimed to restrict consumption of all tobacco cigarette products in Indonesia which indicated that all cigarette companies in Indonesia can get varying impacts, not only on financial performance but also can affect many other variables of the industry such as market share and growth. It is suggested that further research on another cigarette company and other variables is needed in order to reveal the most holistic image on the impact of cigarette packaging regulation from the perspective of the National cigarettes company, Indonesia's economic growth, and National health status. [39] It is also better to use other complementary methodology and measurement tools that bring a comprehensive result.

Conclusion

This research aims to analyze the impact of cigarette packaging regulation on the financial performance of cigarette companies that are represented by PT HM Sampoerna which is hoped to give new insights, not only for PT HM Sampoerna but also for the other cigarette companies and the government in order to make future policies. [30] [14] [40] [57] ... The study result discovered that the implementation of cigarette packaging regulation affects PT HM Sampoerna financial condition that is proven by most of PT HM Sampoerna financial ratios after the

regulation was significantly different from the period before. Only three ratios that are not affected by this regulation which are cash ratio, inventory turnover ratio, and total asset turnover. The significant differences can be further analyzed by the ratio trends over the observed years. Profitability ratios and account receivable collection are inferred to be negatively impacted by the regulation. On the contrary, solvency and liquidity, which are hypothesized to be negatively impacted, have positive trends. This is due to PT HM Sampoerna's management policy which has succeeded in improving assets, liabilities, and equities position by issuing new stocks in 2015.

=====15/16=====

#### Recommendations

After the fresh investment, it is suggested that PT HM Sampoerna should utilize the idle assets to generate more profit. Considering the stale cigarette market growth in Indonesia, Sampoerna is recommended to either invest in new markets/countries or broaden its business outside of the tobacco industry depending on the environment. Additionally, account receivables collection and inventory management also need to be improved for the long run to create balanced monetary assets and non-monetary assets.<sup>[29]</sup> Inventory and production cost can be further reduced by gradually shifting hand-rolled kretek into machine-rolled kretek since it will decrease labor cost, reduce product defect rate, and improve efficiency. Creating more marketing programs which will improve brand image like CSR and sponsoring is also a recommended action to counter negative marketing caused by the regulation.

#### References

Anthony, R., Hawkins, D., & Merchant, K. (2011). Accounting (13th ed.). New York: McGraw-Hill/Irwin.

Centers for Disease Control and Prevention.<sup>[22] [28] [31] [32] ...</sup> Fast Facts. [https://www.cdc.gov/tobacco/data\\_statistics/fact\\_sheets/fast\\_facts/index.\[58\].htm](https://www.cdc.gov/tobacco/data_statistics/fact_sheets/fast_facts/index.[58].htm)

Centers for Disease Control and Prevention.<sup>[22] [28] [31] [32] ...</sup> Tobacco-Related Mortality. [https://www.cdc.gov/tobacco/data\\_statistics/fact\\_sheets/health\\_effects/tobacco\\_related\\_mortality/index.htm](https://www.cdc.gov/tobacco/data_statistics/fact_sheets/health_effects/tobacco_related_mortality/index.htm)

Ernst & Young report (2015). Kajian Singkat Potensi Dampak Ekonomi Industri Rokok di Indonesia. p. 4 - 10

Goodchild, M., & Zheng, R. (2018). Early assessment of China's 2015 tobacco tax increase. Bulletin Of The World Health Organization, 96(7), 506-512. doi: 10.2471/blt.17.205989

White House - Office of Management and Budget. (2020). Table 2.4 Composition of Social Insurance and Retirement Receipts and of Excise Taxes: 1940–2025. Retrieved 28 April 2020, from <https://www.whitehouse.gov/omb/historical-tables/>

President of The Republic of Indonesia. (2012). Government Regulation of The Republic of Indonesia Number 109 of 2012 About Safety of Materials Containing Addictive Substances Forming Tobacco Products for Health.

PT HM Sampoerna TBK. (2018). Sampoerna Reports 2018 Results. <https://www.pmi.com/sampoerna/en/media-center/details/sampoerna-reports-2018-results>

PT HM Sampoerna TBK. (2018). Annual Report 2018. <https://www.sampoerna.com/sampoerna/id/investor-relations/reports-and-filings>

Riskesdas, (2018). Hasil Utama Riset Kesehatan Dasar (RISKESDAS). Journal of Physics A: Mathematical and Theoretical, 44(8), pp. 1–200. doi: 10.1088/1751-8113/44/8/085201.

=====16/16=====

Selvam, M., Gayathri, J., Vasanth, V., Lingaraja, K., & Marxiaoli, S. (2016). Determinants of Firm Performance: A Subjective Model. *International Journal Of Social Science Studies*, 4(7). doi: 10.11114/ijsss.v4i7.1662

Tax Policy Center. (2020). What are the major federal excise taxes, and how much money do they raise?. Retrieved 28 April 2020, from <https://www.taxpolicycenter.org/briefing-book/what-are-major-federal-excise-taxes-and-how-much-money-do-they-raise>

The Indonesian Ministry of Health. (2013). 'Regulation of the Minister of Health of the Republic of Indonesia No. 28 of 2013 concerning Inclusion of Health Warnings and Health Information on Tobacco Product Packaging ', Ministry of Health of the Republic of Indonesia, 19 (6), pp. 631–637.

Wiwiek Mardawiyah Daryanto, Meriana. (2019). Financial Performance Analysis of Indonesia Pharmaceutical Industry before and After the Implementation of National Health Insurance. *International Journal of Innovation, Creativity and Change*. www.ijicc.net Volume 8, Issue 12, 2019

[0]