# ANALYSIS OF MANUFACTURING COMPANIES FINANCIAL DISTRESS OF TEXTILE AND GARMENT AND PHARMACEUTICAL COMPANIES LISTED AT INDONESIAN STOCK EXCHANGE

Francis M. Hutabarat<sup>1</sup>, Inggrid Silalahi<sup>2</sup>

<sup>1</sup>Universitas Advent Indonesia, Bandung, West Java – INDONESIA.

<sup>1</sup>fmhutabarat@gmail.com, <sup>2</sup>chintya.inggrid@gmail.com

#### ABSTRACT

Every company has a mission to achieve its objectives both in terms of profit and also improve overall company performance. There are various ways and model to measure the performance of companies and one of them with a view and analyze corporate financial statements and Springate method is one such model. The method of the study used is descriptive. The data used were secondary data derived from the financial report of Manufacturing Companies of Textile and Garment Sub-Sector and Pharmaceutical Sub-Sector companies from year 2010-2014. The analysis of pairsample t-test shows that there are significant difference between the S-Score performance of Textile and Garment and Pharmaceutical companies with pharmaceutical companies in need to evaluate the performance since they are potentially bankrupt based on the S-Score performance.

Keywords: Textile and Garment, Pharmaceutical, S-Score, Financial Distress

### INTRODUCTION

Every company has a mission to achieve its objectives both in terms of profit and also improve overall company performance. There are various ways to measure the performance of companies and one of them with a view and analyze corporate financial statements. The financial statements can indicate the condition of the company's performance. If the company's allocated funds and resources inappropriately, then this will have an effect on the decreasing of the company's financial performance. This condition is called financial distress (Sawir, 2004). Lots of companies are experiencing financial difficulties to the level of financial distress. Although the economy is stable, still some companies that supposed to manage professionally and in a rapidly growing position, they also experiencing financial distress problems or financial difficulties. Financial distress experienced by the company will give concerns of various parties, both internal sectors such as: managers and employees, as well external parties such company: investors and creditors. as A company can be said to be experiencing financial distress if the company has a performance which showed negative result in their operating income and net income (Brahmana, 2007). Besides that financial distress also occurs when companies have a liquidity problem, which is shown by the decline in the company's ability to meet its obligations to creditors (Hanifah, 2013). In 2015 there are companies that experiencing crisis and almost bankrupt in Indonesia (Khumaini, 2015, para. 2). In Indonesia Stock Exchange there are various sectors of industry. One of them is a manufacturing industry which also has six sub-sectors. In this study, the research will examine the various sectors of manufacturing industry sub-sectors of the textile and garment. There are 17 companies listed in the Indonesia Stock Exchange as manufacturing companies in the textile and garment sub-sector and there are 10 companies listed in Pharmaceutical sub-sector.

Code	Textile and Garment	Code	Pharmaceutical
ADMG	Polychem Indonesia	DVLA	Darya Varia Laboratoria
ARGO	Argo Pantes	INAF	Indofarma
CNTX	Century Textile Industry	KAEF	Kimia Farma
ERTX	Eratex Djaya	KLBF	Kalbe Farma
ESTI	Ever Shine Tex	MERK	Merck Indonesia
HDTX	Panasia Indo Resources	PYFA	Pyridam Farma
INDR	Indo Rama Synthetic	SIDO	Industri Jamu & Farmasi Sido Muncul
MYTX	Apac Citra Centertex	SQBB	Taisho Pharmaceutical Indonesia
PBRX	Pan Brothers	SQBI	Tempo Scan Pacific
POLY	Asia Pacific Fibers	TSPC	West Java
RICY	Ricky Putra Globalindo		
SRIL	Sri Rejeki Isman		
SSTM	Sunson Textile Manufacturer		
STAR	Star Petrochem		
TFCO	Tifico Fiber Indonesia		
TRIS	Trisula International		
UNIT	Nusantara Inti Corpora		

#### Table 1. Textile and Garment and Pharmaceutical Companies

Many researcher developed methods or ways to predict the occurrence of financial distress. If the financial distress can be predicted earlier, the management company may decide to undertake actions that can be used to improve the company's financial condition in the future. Financial distress prediction method is the model used to assess when the company will go bankrupt by combining a group of financial ratios which will provide an overview of the financial condition or performance of the company. One such method is the model of a model method Springate (Pucsek, 2013). Based on the description above, the study will analyze the Financial Distress of Manufacturing Companies at Textile & Garments Sub Sectors and Pharmaceutical Sub-Sectors Listed at Indonesia Stock Exchange.

# **REVIEW OF RELATED LITERATURE**

#### **Financial Distress**

Financial difficulties or financial distress faced by the firm can vary between liquidity problems, in which the company is unable to meet financial obligations while, until trouble solvency (bankruptcy), where the company's financial liabilities had exceeded his fortune (Sawir, 2004). But keep in mind financial distress and bankruptcy is not the same thing. Financial distress is but one cause of bankruptcy of a company. By no means all companies experiencing financial distress will become insolvent.

Platt define financial distress as a stage of decline in financial condition that occurs prior to the bankruptcy or liquidation (Fahmi, 2014). If a firm is experiencing problems with liquidity then this will really allow these companies started to enter a period of financial difficulty. This condition generally characterized among other things by the delay in delivery, product quality is declining, and the delay in payment of bills from the bank (Andre, 2013). Then the company will suffer from the inability financial distress begins to fulfill its obligations, especially short-term liabilities.

Some argue that the reason for financial difficulty can be varied, such as mismanagement, structural problems (Sawir, 2004). He further describe that because of that, the management tend to be lazy to develop more effective accounting system, the company becomes less responsive to changes so often fail to adapt to the less favorable economic developments, especially recession, the management becoming less careful to implement an investment project which is actually too large compared to the size of his own company, and the management is too easy to draw a loan that will ultimately put the company in a precarious position. (Sawir, 2004, p. 236).

According to Fahmi (2014), there are four (4) models or classification category for prediction of financial distress, namely:

- a. Financial distress category A or very high and really dangerous. This category allows the company to be in a position declared bankrupt or insolvent. In this category allows employers to report to relevant parties such as the court that the company is in a position of bankruptcy.
- b. Financial distress category B or higher and is considered dangerous. In this position the company should think about realistic solutions to save the various assets owned, such as the sources of assets to be sold and not sold/maintained.
- c. Financial distress category C or moderate, and this is considered the company was still able to save themselves or biased by additional measures funds from internal and external.
- d. Financial distress category D or lower. In this category the company is considered only experiencing temporary financial fluctuations caused by various external and internal conditions, including birth and implemented a decision which is less precise. And this, generally short-term in nature, so that this condition can be quickly resolved. (pp. 94-95).

### Springate Method

There are some models that predict a company's financial condition and Springate is one such model. Method created by Gordon LV Springate in 1978. According to Vickers (2006), the Springate find there 4 out of 19 financial ratios contributed most to the company's bankruptcy prediction. There are four financial ratios, they are: of working capital to total asset, earnings before interest and taxes to total assets, profit before tax to total current liabilities, and sales to total assets. The following description of the four financial ratios:

# 1. Working capital to total assets (X1)

This ratio shows the importance of the source of loan capital and the level of security held by the creditor. The higher this ratio means that the smaller the amount of the loan capital used to finance the company's assets. (Supadmini & Darmawati, 2008)

# 2. EBIT to total assets (X2)

According Sundana (2011), "This ratio measures a company's ability to generate earnings before interest and taxes by using the total assets owned by the company. In other words, this ratio reflects the effectiveness and efficiency of the management of all the investments made by the company. The higher this ratio means more effective and efficient management of all assets owned by the company to generate earnings before interest and taxes." (p. 23).

### 3. EBT to current liabilities (X3)

According Supardi and Mastuti (2003) in Yuliana (2015), This ratio is included in the solvency ratio for the use of current liabilities and is used to measure the company's ability to gain maximum profit from obligations earned the company earned from loans received by the company through creditors or other parties. The higher the value derived or away from 0 then it can be said that the income earned prior to the effective tax on the liabilities of the company acquired and the larger the company can pay the liabilities of the company.

4. Sales to total assets (X4)

Total asset turnover measures the effectiveness of the use of all of its assets in generating sales. The greater this ratio means that the effective management of all assets owned by the company. (Sundana, 2011, p. 22)

There are four financial ratios that were combined in the formula that called the method Springate. The next Springate also impose standard in the form of 0.862 to predict the value of the company, potentially bankrupt or potential as a healthy company (not insolvent). (Sadgrove 2005, p.178).

Springate method (Pucsek, 2013) defined in the following formula:

S-Score = 1.03X1 + 3.07X2 + 0.66X3 + 0.4X4

Description:

X1 = Working Capital/Total Assets

X2 = Earnings Before Interest and Taxes / Total Assets

X3 = Profit before tax / total current liabilities

X4 = Sales / total assets.

The Assessment of the company potential for bankruptcy are divided into two categories (Ben, Dzulkirom & Topowijono, 2015), namely:

- S < 0.862 Prediction is that company potentially experiencing financial difficulties and potentially going bankrupt.
- S>0.862 Prediction is that the company in financial sound and has no problems with finances

# METHOD OF THE STUDY

The method of the study used is descriptive where the data used collected, analyzed and presented in a descriptive manner. The data used were secondary data derived from the financial report of Manufacturing Companies of Textile and Garment Sub-Sector and Pharmaceutical Companies from year 2010-2014. The sample used in the study was 10 companies that are listed as companies listed at Indonesia Stock Exchange. Analysis was done using Springate method of S-Score with four financial ratios: There are four financial ratios, they are: of working capital to total asset, earnings before interest and taxes to total assets, profit before tax to total current liabilities, and sales to total assets. The following is Springate method formula:

S-Score = 1.03X1 + 3.07X2 + 0.66X3 + 0.4X4

Description:

X1 = Working Capital/Total Assets

X2 = Earnings Before Interest and Taxes / Total Assets

X3 = Profit before tax / total current liabilities

X4 = Sales / total assets.

The assessment of Springate formula:

S < 0862 Prediction is that company potentially experiencing financial difficulties and potentially going bankrupt.

S > 0862 Prediction is that the company is solvent thus has sound financial performance

The analysis on the differences of Textile and Garment and Pharmaceutical companies S-Score is done using pair-sample t-test.

### **RESULT OF THE STUDY**

#### **Textile and Garment Sub-Sector**

Textile and Garment sub-sector is one of the industrial sector listed at Indonesian Stock Exchange. There are 17 companies listed in the sub sector (see Table 1). The following Table 2 shows 5 companies representation of the sub sector namely ARGO, INDR, PBRX, SSTM and ADMG. The table below shows the Springate Method S-Score of the companies that gives the financial condition of the companies. Springate used S-Score standard of 0.862 to differentiate companies that financially sound and companies that are potentially bankrupt.

	<b>F</b>						
	2010	2011	2012	2013	2014		
ARGO	0.15	0.44	1.09	1.2	2.77		
INDR	-0.5	0.71	1.13	0.98	1.01		
PBRX	-0.99	0.71	1.01	0.74	1.08		
SSTM	0.77	0.74	1.49	0.7	0.82		
ADMG	-0.83	0.75	1.16	0.56	0.18		
	-0.28	0.67	1.18	0.84	1.17		

 Table 2. S-Score of Textile and Garment Company

Table 2 shows the results of S-Score of Textile and Garment Companies from year 2010-2014. The results of ARGO company shows that they are in the financial distress at year 2010 and 2011. However, ARGO shows an increase in their financial performance and 2012 to 2014 they perform well and have sound financial performance. INDR company on the however shows fluctuate performance, nevertheless from year 2012 to 2014 they shows that their performance above the standard of 0.862. On the other hand, SSTM and ADMG have their peak of their performance in year 2012, however, on 2010 and 2011, and 2013 to 2014 their financial performance is poor and potentially bankrupt.

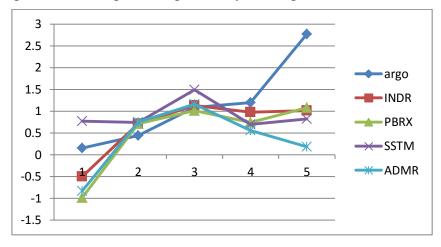


Figure 1. Textile and Garment Company

Figure 1 above shows the graphic line performance of companies listed at Textile and Garment sub-sector. The best financial performance shows in the figure is of ARGO as they shows increase in their performance and above the standard of 0.862.

# Pharmaceutical Sub-Sector

Pharmaceutical sub-sector is one of the industrial sector listed at Indonesian Stock Exchange. There are 10 companies listed in the sub sector (see Table 1). The following Table 3 shows 5 companies representation of the sub sector namely INAF, KAEF, KLBF, MERK and PYFA. The table below shows the Springate Method S-Score of the companies that gives the financial condition of the companies. Springate used S-Score standard of 0.862 to differentiate companies that financially sound and companies that are potentially bankrupt.

	2010	2011	2012	2013	2014
INAF	1.13	0.99	0.92	0.47	0.69
KAEF	1.71	1.95	1.96	1.76	1.62
KLBF	2.52	2.58	2.62	2.34	2.48
MERK	4.45	5.70	2.84	3.23	3.05
PYFA	1.29	1.21	1.21	0.88	0.88
	2.22	2.49	1.91	1.74	1.74

Table 3. S-Score of Pharmaceutical Company

Table 3 shows the results of S-Score of Textile and Garment Companies from year 2010-2014. The results of INAF company shows that they declining in their performance, they can't keep their sound financial performance of 2010 to 2012, and declining in 2013 and 2014. On the other hand, the other four companies, namely KAEF, KLBF, MERK, and PYFA shows good financial performance since their S-Score is above 0.862, thus they are

solvent and financially sound. In overall the pharmaceutical companies are healthy and showing good financial performance with average above the standard S-Score of 0.862.

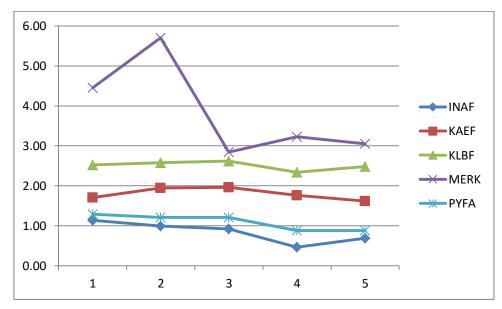


Figure 2. Pharmaceutical Company

Figure 2 above shows the graphic line performance of companies listed at Pharmaceutical sub-sector. The best financial performance shows in the figure are of KAEF, KLBF, MERKA and PYFA as they shows their performanceabove the S-Score standard of 0.862.

#### **Analysis of Data Differences**

The differences of the two sub-sector performance in their S-Score is analyzed using pairsample t-test. The following Table 4 shows the mean results of the two sub-sector, textile and garment with mean 0.71 and pharmaceutical sub-sector with mean 2.02. The results show that that the average S-Score of textile and garment is below the standard of 0.862 and thus the companies are potentially bankrupt. On the other hand, the pharmaceutical companies have an average S-Score of 2.02 which is above the standard of 0.862, thus the companies in this sub-sector are financially sound and shows good financial performance.

		Table 4. Pair Sample t-test						
				Mean	N	S.E. Mean		
	Pair 1	Textil Garm		0.71	25	0.15		
	i all 1		Pharmaceutical		25	0.24		
		Paired Differences						
	-	Mean	Std.	Std.		t	df	Sig.
			Deviation	Error	•			_
				Mean	ı			
Pair 1	Textile and Garment	-1.30	1.46	.29		-4.46	24	.000
	Pharmaceutical							

 $\begin{array}{l} \mbox{Copyright} @ \mbox{2016 SAVAP International} \\ www.savap.org.pk \end{array}$ 

In analyzing the significant differences of the two sub-sector, the result shows that there is significant difference between textile and garment sub-sector companies and pharmaceutical sub-sector companies with  $\rho = 0.000$  at  $\alpha = 0.05$ . The difference is because the pharmaceutical companies have mean of 2.02 which is higher and above the standard of 0.862 and for textile and garment companies, they have mean of 0.71 which is below the standard of 0.862. Thus, the pharmaceutical sub-sector companies have good financial performance and textile and garment sub-sector companies have potentiality to be bankrupt.

### CONCLUSION

The study concluded that based on the results of the study, the textile and garment sub-sector companies are in poor performance and potentially bankrupt based on the S-Score results below the standard 0.862. On the other hand, pharmaceutical sub-sector companies are solvent and have good financial performance. The analysis of pair-sample t-test shows that there are significant difference between the S-Score performance of Textile and Garment and Pharmaceutical companies with pharmaceutical companies with the better S-Score performance that leave the pharmaceutical companies in need to evaluate the performance since they are potentially bankrupt based on the S-Score performance.

# REFERENCES

- [1] Andre, O. (2013). Pengaruh profitabilitas, likuiditas dan leverage dalam memprediksi financial distress (Studi empiris pada perusahaan aneka industri yang terdaftar di BEI). Skripsi. Padang: Program Studi Akuntansi Fakultas Ekonomi Universitas Negeri Padang.Calapkulu, C. (2011). The Framework of "Uses and Gratifications Approach" the Television Viewing Purpose of Children in the 3-6 Age Group. *Academic Research International*, 1(1), 20-42.
- [2] Ben, A.D; Dzulkirom. M., and Topowijono. (2015). Analisis metode springate sebagai alat untuk memprediksi kebangkrutan perusahaan. *Jurnal Administrasi Bisnis*, 21(1), 6, April 2015.
- [3] Brahmana, R. (2007). Identifying financial distress condition in Indonesia manufacture industry. *Journal of accounting*, pp. 5-51
- [4] Fahmi, I. (2014). *Analisis Kinerja Keuangan*. Bandung: Penerbit Alfabeta.
- [5] Hanifah, O. (2013). Pengaruh Struktur Corporate Governance dan Financial Indicators Terhadap Kondisi Financial Distress. "*jurnal maksi undip*, 25-53
- [6] Khumaini, M. Ali. (2015). *Puluhan Perusahaan di Karawang Alami Krisis*. [Online]. Available: <u>http://bogor.antaranews.com/berita/13340/puluhan-perusahaan-di-karawang-alami-krisis</u>. [7 Juni 2015]
- [7] Pucsek, J. (2013). *Financial and accounting controlling*. [Online]. Available: <u>http://www.tankonyvtar.hu/en/tartalom/tamop412A/0007\_e7\_penzugyi\_es\_szamviteli</u> <u>kontrolling\_eng/the\_springate\_model\_10vJnCchopOIaclw.html. [2013]</u>
- [8] Sadgrove, K. (2005). Complete Guide to Business Risk Management. United Kingdom: Gower.
- [9] Sawir, A. (2004). *Kebijakan Pendanaan dan Restrukturisasi Perusahaan*. Jakarta: PT Gramedia Pustaka Utama.
- [10] Sundana, I Made (2011). *Manajemen Keuangan Perusahaan: Teori dan Praktik.* Jakarta: Penerbit Erlangga.
- [11] Supadmini, S., & Darmawati, S. S. (2008). Optimalisasi penggunaan Microsoft excel dalam analisis laporan keuangan perusahaan. *Modul Universitas Gunadarma*
- [12] Yuliana, A. (2015). Analisa perbandingan model altman Z-Score, model springate, dan model Zmijewski untuk prediksi financial distress pada perusahaan pertambangan yang terdaftar di BEI sebelum dan sesudah diberlakukan UU Nomor 4 Tahun 2009 tentang pertambangan mineral dan batubara (MINERBA). *Bandung: Universitas Widyatama*.
- [13] Vickers, F. (2006). *The Dynamic Small Business Managers*. [Online]. Available:<u>https://books.google.co.id/books?id=niCnR-</u> <u>lordoC&pg=PA67&dq=springate&hl=en&sa=X&ved=0CCIQ6AEwAWoVChMIp8D</u> <u>SjsPmxwIVUQqOCh1p0wXw#v=onepage&q=springate&f=false</u>. [2006]