The Effectiveness of The Measurement of Trade Receivables Through The Ratio of The Turnover of Receivables And The Average Age Ratio of Receivables

Ernawan Rebuin[1], Wahyu Murti[2], Cicih Ratnasih[3]

Ernawanrebuin20@gmail.com[1], wahyu_murti@borobudur.ac.id[2], cicih_ratnasih@borobudur.ac.id[3]

Universitas Borobudur[1, 2, 3]

Abstract: Management decisions are very important decisions in the survival of the company, especially in regulating the effectiveness of receivable management. The purpose of this study is trying to analyze how to build effective accounts receivable management models through the use of receivable turnover ratios, the average age ratio of receivables, arrears ratios, and the ratio of billing in hospitals. Therefore, this research was developed under the umbrella of management theory, by further analyzing the trade receivable management strategy based on the ratio of receivables, and the average age ratio of receivables. The quantitative approach is carried out using the calculation of financial ratios, with a descriptive qualitative approach. Analysis of financial statements is based on financial reporting records for 5 consecutive years, with a range of 2017-2021. This study empirically shows that to implement an effective management procedure and control system, an internal teamwork program that contains clear containing activities, targets, outputs, and time of program implementation. These results make it possible to understand the major contribution of managing trade receivables in minimizing the risk of business losses, as well as highlighting the importance of the active role of internal stakeholders in the preparation of effective trade receivable management strategies by basing findings through the perspective of financial ratios.

Keywords: Effectiveness; Management; Accounts receivable.

1. Introduction

In the company's operational scope, receivables are crucial when faced with important questions regarding "how many optimal receivables?" (Putri et al., 2018). In addition, the management of receivables must also be managed effectively and efficiently, because receivables are directly related to profits or additional profits obtained by the company, especially hospitals, where the management of receivables and profits is obtained through adjustments to sales policies with expenses arising from the existence of receivables (Ernawati, 2019). Adjustment of accounts receivable policies by management itself, all decisions refer to the source of financial statements (Ramzijah, 2020). Financial statements are reports that show the company's financial condition at this time or in a certain period (Aini & Kristanti, 2020).

A hospital (RS) is an institution engaged in the sale of health services in its operational activities. The development of the times demands that hospitals must be reactive in developing services, both in the field of medical services, and financial management. Sales of hospital services impose payment in cash, as well as credit or receivables. Accounts receivable is the

amount to be collected from customers as a result of the sale of goods or services on credit (Ameliany, 2018). High turnover of receivables will cause the company's capital to increase so that the company can be said to be liquid and vice versa if low receivables will result in decreased company capital, the company is said to be liquid (Hery, 2017).

To avoid increasing costs that are too large due to the emergence of receivables, it is necessary to manage good receivables, and consider the risks that may arise, because the provision of credit will result in most likely working capital will not operate efficiently and will cause financial difficulties (Indah W T, 2020). This is following the opinion (Munawir, 2017), which states that a low-cost turnover shows the excess of working capital that may be due to the low turnover of inventory receivables, receivables, or the existence of cash balances that are too large.

The phenomenon that occurs and is the current concern is that the sale of service credit by hospitals implies cooperation between institutions, and is related to the existence of a third party represented by the Health Social Security Organizing Agency (BPJS Health). BPJS Health is a public legal entity that is directly responsible to the president who has the responsibility of completing national health insurance for all Indonesian people (Permenkes No. 28 of 2014).

The following displayed data on hospital receivables, derived from the 2017-2020 financial balance sheet report.

Table 1. Receivable data

No.	Year/ Period	Current asset	Insurance receivables and company receivables	Percentage
1	2017	Rp. 149,553,722,340.87	Rp. 99,642,948,560.37	66.63 %
2	2018	Rp. 168,652,962,128.90	Rp. 117,879,517,789.64	69.89%
3	2019	Rp. 175,494,253,208.46	Rp. 124,296,487,040.17	70.83%
4	2020	Rp. 185,947,305,810.78	Rp. 131,218,807,391	70.57%
	Total	Rp. 679.648.243.498.01	Rp.473.037.760.781.18	70%

Data shows that there is a high possibility that the hospital will experience operational constraints due to the greater amount of company receivables every year so effective management of receivable management is needed.

Research (Yusuf & Sapitri, 2021) and (Mahartiwi K W & Sudarwati, 2021) showed the results that effective management of putting management is needed so that companies have a good capital structure as well. This result is supported by (Iqro & M, 2019) and (Yunus & Wijaya, 2021) who explain that a company that has a bad capital structure, which has a very large debt will give a heavy burden on the company concerned.

Receivable management in a good way is needed, so that the company's finances can run and minimize things that will be possible outside of calculations (Rahayu et al., 2020) (Windiyah & Putra, 2014). So that the credit sales policy can be realized following the plan, the management of receivables must always monitor receivables (Franciska R & Agus Solikhin, 2020). If receivables show a tendency to increase, the period of collecting receivables increases, and investment in high receivables and profitability decreases, then financial management needs to take action to deal with more serious receivables (Dera et al., 2017).

Based on this background, it appears that management decisions are very important decision in the survival of the company, especially in regulating the effectiveness of the management of receivables. Hospital operations require a very large cost, whereas if the funds are still in the form of receivables that are often difficult to be poured into a liquid form, then it will become a huge obstacle and have a direct impact on the absence of hospital services. Effective receivable management shows that the turnover of receivables every year has

increased and the collection of receivables is always right with the target expected by the company (Mikhrunnisah, 2020).

The problem in this paper is how to measure trade receivables through the ratio of receivables and the average age ratio of receivables.

2. Methods and Approaches

2.1 Method

This research was developed under the umbrella of management theory, by further analyzing the accounts receivable management strategy based on the ratio of receivables, the average age ratio of receivables, and the ratio of accounts receivable arrears. The semi-quantitative-qualitative approach is carried out using the calculation of financial ratios, with a descriptive qualitative approach. Analysis of financial statements is based on financial reporting records for 5 consecutive years, with a range of 2017-2021. The number of informants in this study amounted to 6 people, consisting of 1 key informant, 3 main informants, and 2 supporting informants. [5]

2.2 Type of data

The type of data in the study is qualitative data, which is the research intended to gather information about the status of a symptom that exists, namely the state of symptoms according to what it is when the study was conducted. Therefore, qualitative research is able to reveal the phenomena of a subject that you want to investigate in depth (Arikunto, 2016).

2.2.1 Data source

Secondary data is a source of data for a study obtained by researchers indirectly through intermediary media (obtained or recorded by other parties). According to (Sugiyono, 2018), secondary data is a source of data that does not directly provide data to data collectors, for example through other people or through documents. Secondary data sources in this study are Balance Sheet Report Data and Profit-Loss Statements.

2.2.2 Informant selection technique

To determine the informants in this study, researchers chose purposive sampling and snowball sampling techniques. The purposive sampling technique is a sampling technique for data sources with certain considerations. Certain considerations, for example, the person who is considered to know the best of what we expect, or maybe he as a ruler so that it will make it easier for researchers to explore the object/social situation studied (Sugiyono, 2018). In the Purpose Sampling technique, the researcher selects the research subject to determine the key informant (key informant) following the focus of the research conducted intentionally without being made up to gain the strength of the accuracy. Meanwhile, to increase data credibility, researchers also use Snowball Sampling techniques which aim to develop information from determined informants.

2.2.3 Data collection technique

In this study, researchers used primary and secondary data collection techniques. Primary data collection techniques used by researchers in the form of interviews and observations. Researchers chose a semi-structured form of an interview, which is the type of interview in the in-depth interview category, which is an interview

that in implementation is freer compared to structured interviews (Sugiyono, 2018). The purpose of this type of interview is to find problems more openly. In this study, the researcher conducted observations of the process of implementing accounts receivable management. As well as evaluation of insurance receivables and company receivables every day at the hospital. Secondary techniques carried out by researchers are documentation (Amri & Hendarsyah, 2017). This documentation is given by informants about evaluation activities carried out by informants. Starting from transaction recording activities, checking documents, checking reports, and filing reports electronically (Ariyati, 2019).

2.3 Analysis method

This study was developed under the umbrella of management theory, by further analyzing the accounts receivable management strategy based on the ratio of receivables, the average age ratio of receivables, and the ratio of accounts receivable arrears (Adam Zakiya, et.al., 2020). The managerial performance itself besides being renewed by the ability of business management, is also influenced by business strategies and the use of management accounting systems in the organization (Aditya et al., 2021).

There are several things done by researchers in their research, including; First, the thinking of researchers regarding the importance of effective management of receivables, so that the hospital can continue to operate well; Regarding the understanding of receivable management, and the ratio of effective management of receivable management, and in particular the management of receivables in the hospital. Second, the reality in the field is that trade receivable is divided into insurance receivables and company receivables in the hospital. Researchers found several problems in the form of an increase in the number of receivables that continue to increase every year, on the one hand, the increase in receivables is considered positive due to increased receivables, then the increase in income. The three researchers made the focus of their research, namely the effectiveness of the management of receivables measured using the ratio of receivable turnover, the average age ratio of receivables, and the ratio of accounts receivable arrears. Fourth, researchers prepare research instruments and steps. Fifth, choose a sample. And the sixth is data collection through interviews, observation, and documentation, followed by analyzing the data obtained and the meaning of the data. Data collection can be done repeatedly according to the needs of researchers. And then conclude the data that has been analyzed.

3. Findings and Discussion

One type of corruption crime formulated in Law No. 31 of 1999 jo. UU no. 20 of 2001 concerning Eradication of Corruption Crimes is a criminal act of corruption that harm the country's finances or the country's economy, meaning that state losses are one of the elements in the act of corruption. [7]

The following is a data on the RS business receivables in the last 5 years.

Table 2. Accounts receivable data

Year	Initial Balance	Credit sales	Total receivables	Average receivables	Deadly accounts receivable
2017	16,381,739,931.00	99,642,948,560.37	116,024,688,491.37	17,200,102,404.05	98.824.586.087,365

Year	Initial Balance	Credit sales	Total receivables	Average receivables	Deadly accounts receivable
2018	18,110,033,381.01	117,879,517,789.64	135,989,551,170.65	30,063,306,045.565	105,926,245,125.08
2019	42,018,681,642.12	124,296,487,040.17	166,315,168,682.29	42,208,556,702.590	124,106,611,979.7
2020	42,398,431,763.06	131,218,807,391.00	173,617,239,154.06	39,449,212,763.030	134,168,026,391.03
2021	36,499,993,763.00	206,872,196,250.80	243,372,190,013.80	18,855,441,904.500	5,481,777,109.3

a. **Receivable turnover ratio**

How to find the ratio of receivable turnover is to compare credit sales with an average receivable (Ryfan et.al., 2018). The formula for finding receivable turnover is as follows:

$$RTO = \frac{Credit\ Sales}{Average\ Receivables}$$

The calculation results from the Receivable Turn Over are as follows:
1. Year 2017.
   99.642.948.560,37/17.245.886.656,01 = 5,78 times
2. Year 2018.
   117.879.517.789,64/30.064.357.511,57= 3,92 times
3. Year 2019.
   124.296.487.040,17/42.208.556.702,59= 2,94 times
4. Year 2020.
   131.218.807.391,00/39.449.212.763,03= 3,33 times
5. Year 2021.
   206.872.196.250,80/18.855.441.904,50= 10,97 times

In 2021, the company's RTO performance reached the highest point of 10.97 times, or up to 7.64. Conversely, the lowest company's RTO performance occurred in 2019 at 2.94 or down 0.98 from the previous year, in 2018 at 3.92. This is because, even though there is an increase in the level of credit sales, which is Rp. 124,296,487,040.17, but there was also an increase in the average level of receivables which was originally Rp. 30,064,357,511.57 In 2018, it rose to Rp. 42,208,556,702.59. So that it has an impact on the previous RTO of 3.92 in 2018, to decrease in 2019 to 2.94. Furthermore, in 2020, company credit sales increased to Rp. 131,218,807,391.00 and accompanied by a decrease in total receivables from the previous 2019 amounting to Rp. 42,208,556,702.59, - to Rp. 39,449,212,763.03. Likewise, in 2021, company credit sales increased again to Rp. 206,872,196,250.80, - followed by a decrease in total receivables of Rp. 18,855,441,904.50. This proves that the company, in this case, the management of hospitals always strives to improve the performance of its receivables, namely by increasing credit sales and reducing to a minimum the amount of debt, because basically the higher the level of turnover of company receivables, the better the management of the receivables, and also if the level of turnover of receivables is high, it means that the shorter time is bound by capital in receivables.

b. **The average age ratio of receivables.**

Receivable turnover is a ratio used to measure how many times the funds embedded in accounts receivable will spin in one period (Mariaty I & Rian Hidayat, 2022). In other words,

this ratio illustrates how fast the receivables are successfully billed to be cash. The following is a formula used to calculate the ratio of receivable turnover:

The calculation results of the Average Collection Period (ACP) are as follows:
1. Year 2017.
    365/5,78= 63,17 Days
2. Year 2018.
    365/3,92= 93,09 Days
3. Year 2019.
    365/2,94= 123,95 Days
4. Year 2020.
    365/3,33= 109,73 Days
5. Year 2021.
    365/10,97= 33,27 Days

Average Collection Period (ACP) The company is strongly influenced by the Receivable Turn Over (RTO) level of the relevant year. The greater the level of the company's RTO, the better the ACP value. The best level of Average Collection Period (ACP) of the company in 2020, is 14.22 days, where the rate of turnover is quite high. While the lowest level of ACP of the company is in 2021 when the ACP level reached 76.46 days, where the level of turnover of receivables experienced a very low decline of 10.97 times.

Based on the results produced in the table above, the company has not been effective in managing its business receivables, under the standards and time limits determined by the company. The reason is the company sets the repayment limit or due date no later than 15 (fifteen) calendar days since the billing note is received by service users. Calculation of this ratio is intended to assess the efficiency of efforts to collect company receivables. If the average age of the collection of receivables is always greater than the time limit set by the company, it means that the company is declared less efficient in the collection of receivables.

4.   Conclusion

Hospital management in implementing the management procedures and receivable control systems is very optimal to reduce the number of uncollectible receivables. So that the implementation of managing trade receivables at the hospital. To be effective, it takes a work program from the regional team that contains activities, targets, expected results, and implementation time. The results of this study also have managerial implications, which refer to the open statement of respondents to the leadership policy so that the collection of receivables can be optimal, so it can be taken by: 1). Coordinate with related sections to make clear implementation instructions in the collection of files needed in billing, then a procedure is made for the file collection system, 2). To find out the number of accounts receivable human resource needs, it is necessary to evaluate the calculation of HR requirements for each semester associated with the targets that must be achieved by the receivable unit. Determination of the number of human resources needed by conducting calculations for all activities/activities carried out, the length of the transaction needed to carry out all these activities, and the estimated transaction volume, from these data, is then calculated using the power calculation formula, 3). To improve the competency of receivables, the training is needed to be carried out through hospital training.

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