The Effect of the Application of Class Based Storage Method on Increasing the Utility in The Warehouse at CV. Bachtiar Jaya Plastic

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ABSTRACT

This study aims to determine how big the influence of the application of the Class-based Storage Method on the Improvement of Utilities in the Waste Warehouse in CV. Bachtiar Jaya Plastic. By applying the Class-Based Storage method, the benefits in the warehouse can be more optimal, the speed in the storage process and the accuracy in managing the warehouse to meet consumer needs. The research methodology used is descriptive quantitative research method, with samples in this study as many as 30 performances using the Non Probability Sampling Technique, namely Saturated Sampling. The results of this study indicate that Class-Based Storage has an effect on Warehouse Utility. based on the results of the t-test obtained the value of t-count > t-table (5,282>2,048). It can be concluded that H_0 is rejected and H_1 is accepted, or there is an influence between the application of the Class Based Storage Method on increasing the utility in the warehouse.

INTRODUCTION

Warehouse is a facility or room in the company that stores, products both raw materials, semi-finished products, finished products, and other products. The storage function is in the form of a room, and one of the improvements in warehouse function can be done by rearranging the location during the material placement process. If only making ordinary storage can cause a buildup of products that do not maximize the capacity area of the warehouse, making the workforce difficult in carrying out the recycling processing process due to the lack of grouping of product types and the absence of a sign to facilitate the search.

(Purnomo, 2004) says that warehouses are used to store goods and materials used in the manufacturing process, as well as finished products to be shipped. The layout in the Warehouse is one of the most important parts of the operating process in the Warehouse in the company for the effectiveness of warehouse performance in increasing consumer demand. Waste is waste or waste material that is believed to have no value generated from a production process, either industrial or domestic (household).

In the implementation of the waste warehouse structuring system before the evaluation and research, the type of product placement in the warehouse is still scrambled, only making ordinary storage and the buildup of plastic product waste sacks does not maximize the warehouse capacity area making performance difficult in the process of searching, entering and removing products due to the absence of grouping of product type places and the absence of a sign to facilitate the search. The application of the Class-Based Storage method carried out in this research helps companies in storage and warehouse arrangement can be divided according to the type of product in order to maximize the warehousing area. Based on the problems that occurred, it can be concluded that there is a lack of utilization of warehouse capacity, namely the storage of products in the Warehouse using the Class-Based Storage method to optimize revenue in the Warehouse, the speed of the storage process and the accuracy of warehouse management to meet consumer needs.

LIBRARY REVIEW

A. Logistics Management

Logistics Management according to Siahaya (2012) "Logisticsmanagement is part of Supply Chain Management that plans, implementsand controls the flow of goods effectively and efficiently, including transportation, storage, distribution and related services and information ranging from the place of origin of goods to the place of consumption to meet customer needs.

B. Warehouse

According to Purnomo (2004), warehouse or storage is a place to storegoods, both raw materials that will be made in the manufacturing processand finished goods that are ready to be marketed. While warehousing is not only the activity of storing goods but also the process of handling goods ranging from the receipt of goods, sorting, recording, selection, labeling, storage, to the delivery process.

C. Warehouse Layout

The objectives of planning the warehouse layout can be met, so there are five principles of storage area that need to be considered as a whole. The five principles are as follows: [Tompkins, et al., 2003]

1. Popularity

   In general, 85% of the overall process of getting in and out of goodsfrom / to the warehouse occurs on 15% of all goods stored. To maximize the process of getting in and out of goods, 15% of goods that are popular goods must be stored so that the distance of their movement to the point of entry and exit of the goods can be minimized.

2. Similarities

   Goods received and shipped at the same time should be stored in the same area.

3. Each

   Item should be stored in an area that corresponds to its size. To findout, it is necessary to hold varioussizes of storage locations. The method of storing goods taking into account their characteristics often goes against the principles of popularity, similarity and size.

4. Spatial

   Planning must be carried out to maximize space utilization and alsomaximize the level of service produced.

D. Warehouse Storage Method

In warehouse layout design, it is not enough to just arrange the physicallayout. But it is also necessary to determine the method of storage or product placement. There are 4 methods of storage of warehouses, namely:[Francis, et al., 1992].

1. Dedicated Storage

   This method is often referred to as a specific storage place or as a permanent storage place, using a specific location or storage place for each item stored because the location for each item has been determined place.

2. Randomized Storage

   This method is often referred to as floating lot storage, which is storage that allows the stored product to change its storage location at any time. The placement of goods pays attention only to the closestdistance to the storage area at all times.

3. Class-Based Storage

   This method is a combination of randomized storage and dedicated storage methods. This method makes existing products divided intothree, four or five classes based on throughput ratio and storage

ratio.Researchers suggest using the Class-Based Storage method, becausethis method makes the arrangement of the designed place more flexible by dividing the storage area into several parts.

4. Shared Storage
Different products use the same storage slot, although only one product occupies one of those slots. This storage model is called shared storage.

E. Steps – Steps of Warehouse Storage Methods

Space requirement is a product that is placed in a more specific locationand only one type of product is placed at that storage location. Space requirements are needed to find out the storage capacity in the slot or available storage area, so it will be known how many slots are needed to store one type of product which is next to calculate whether the number ofslots available in the Warehouse can be sufficient or not. The term throughput is used as a measure of the amount of storage and retrieval activity that occurs per time period.

The purpose of this ranking procedure is to put the product with the largest throughput ratio (T_j) and storage (S_j) in the storage location with a small average distance traveled value dk, put the product with the next largest ratio at the storage location with the next smallest travel value distance and so on. (Permana, 2014).

F. Product Classification

1. Classification of Inventory Based on The Function of Goods.
In this classification, the Warehouse will be divided according to whatitems are stored in the Warehouse. In general, namely: as Raw Materials, as Goods in Process, as finished goods, as spare parts or equipment.
2. Classification of Inventory Based on The Flow of Goods Flows
In this classification, inventory will be seen based on the flow of goods,whether the goods include fast moving, medium moving and slow moving goods.

By classifying products by product classification, the efficiency of warehousing operations is improved. According to Apple (1990), depending on the flow of goods in and out, it can be divided into varioussettings as follows.

Table 1. Flow of Goods

Simple linecurrent	Using a simple straight line layout, the flow of goods willtake the form of a straight line. The process of getting in and out of goods is not through winding alleys / alleys sothat the process of storing and retrieving goods is relatively faster.
U Current	By using the U-flow layout, the flow of U-shaped goods,the storage and retrieval process will be relatively longer because the process of entering and exiting goods throughwinding alleys.
L Current	By using the layout of the L flow / L-shaped goods flow and the process of getting in and out of goods through the aisle / path that is not too winding so that the process of storing and retrieving goods is faster.

G. Storage Area Calculation

According to Meyers (2005), the calculation method is to calculate by the storage space needed for the calculation of product obcursion multipliedby the daily output multiplied by the day. To calculate the quantity of material handling needed, divide the quantity of material by the maximum quantity of material in the material handling unit.

H. Warehouse Utilities

According to Ricky Martono (2018) The assessment of warehouse utilization can be known by calculating the following formula, namely:

Capacity utility level   = Capacity used

Maximum capacity level, − or at the best constituency

Capacity used $=$ the level of output achieved

Maximum capacity or at best condition = capacity designed from thebeginning, or best operating level.

Theory Framework

A research variable is an attribute or trait or value of a person, object, organization or activity that has certain variations that are determined by the researcher to be studied and then drawn in conclusions. Sugiyono (2018: 57) The variables used in this study are independent variable (X) and dependent variable (Y).

a. Free variables (independent variables), According to Sugiyono (2018: 57) Free variables are variables that affect or are the cause of changes or the emergence of dependent variables (bound). In this study, what became a free varibel was the application of the Class-Based Storage method.

b. Variables are bound (dependent variables), According to Sugiyono(2018: 57) Bound variables are variables that are affected or that becomea result, due to the existence of free variables. In this study, the bound variable is increased utility in waste warehouses.

Hypothesis

The hypothesis is a temporary response to the problem at hand, and its veracity must be verified with more complete and supportive data. (Sugiyono,2018:63). Here is the hypothesis formulation of this study:

H_0: No Effect of Application of Method-Class-based Storage on ImprovingUtilities in Waste Warehouses.

H_1: There is an Influence on the Application of Class-Based Storage Methodson Improving Utilities in Waste Warehouses.

RESEARCH METHODS

A. Research Methods

According to Sugiyono (2013: 13), quantitative research methods can beunderstood as research methods based on positivist philosophies used to investigate specific populations or samples. Sampling techniques are generally done randomly and use research tools to collect data and analyze quantitative or statistical data to test predetermined hypotheses. According to Sugiyono (2013: 3) defining research methods is basically a scientific way to obtain valid data with a specific purpose and use.

In this study according to Sugiyono (2017: 35) descriptive method is a method that aims to find out the nature and relationship more deeplybetween the two variables by observing certain aspects more specifically, sothat data is obtained in accordance with the problem of the purpose of the research, analyzed, and processed further based on the theory studied, so that conclusions can be drawn In this study descriptive analysis is used to find out the extent to which descriptive analysis is obtained to find out the extent to which The effect of applying the Class-Based Storage Method in the CV. Bachtiar Jaya Plastik on the product layout section to improve Utilities in warehouses.

B. Variable Operations

1. Class-Based Storage method of placement of materials or materials based on the similarity of a type of material or size of material into a particular group. According to (Tompkins 2003) there are five principles of storage placement area that need to be considered as a whole, namely: popularity, similarity, size, characteristics, and utilization.

2. According to Ahmad Arwanl (2009,23) the role of warehouses and arrangements that allow good warehouse operations can be categorizedinto three functions, namely: Storage, Serving customer demands, Distribution and Consolidation.

C. Data Collection Techniques

According to Sugiyono (2017,194) the way or technique of data collection can be done by

interview (interview), questionnaire (questionnaire), observation (observation), and a combination of the three.

1. Observation is a way of collecting data through observation of the process of recording the behavior of subjects (people), objects (objects) or systematic events, understanding patterns in cv waste warehouse activities. Bachtiar Jaya Plastik.
2. Data collection interviews by providing questions to respondents in thehope that respondents will respond or answer to the question. In this study, the purpose of conducting an interview with warehouse ownersto find out in more depth about the layout of CV Warehouse products.Bachtiar Jaya Plastik.
3. The literature of data collection techniques in this study by studying and researching books, journals, papers, other supporting literature, related institutions, and theories from other sources related to class-based storage problems.
4. The data collection technique questionnaire is carried out by asking a series of questions or written statements according to the variables thatwill be measured for respondents to answer. In this study, questionnaires or questionnaires were distributed to 30 employees anddaily workers at warehouse operations to find out the level of Warehouse Utilities in the CV. Bachtiar Jaya Plastik.

D. Sampling Techniques

In this study, the authors used a non-probability sampling technique, which is a saturated sampling technique. According to Sugiyono (2019: 128) sampling technique is a sampling technique. To determine the sampleto be used in the study. The study used a relatively small population of less than 30 people.

E. Data Analysis Techniques

The method of data analysis in this study is quantitative descriptive research. By processing the results of data collection, the information obtained is easily disclosed and analyzed further in accordance with the analytical discussion techniques used. Surveys have two importantrequirements: validity and reliability. Measuring instruments are effective when they can measure what they need and correctly disclose the data for the investigated variables in an appropriate way.

Validity Test

The validity test is a measuring instrument, if it can measure what isneeded to obtain relevant data from the variables studied, then it showsthe level of effectiveness of the tool is considered valid. According to Sugiyono (2011: 121), the validity test is the accuracy between the datacollected and the data that actually occurs in the research subject. The test technique used is the correlation technique through the product moment correlation coefficient. According to (Siyoto and Sodik, 2015:88) The empirical validity of question items is calculated by means of correlation statistics. The validity of objective question items is calculated by the biserial point correlation formula, the validity of the description question item is calculated by the product moment correlation formula. The correlation number obtained in this way is called the validity coefficient or the question point validity number, the product correlation formula is:

a) If r calculates > r table, then the measuring instrument or researchinstrument used is valid.
b) If r calculates < r table, then the measuring instrument or researchinstrument that is being used is invalid.

Reliability Test

Reliability tests are intended to measure to what extent the degree ofaccuracy, precision or accuracy indicated by the measuring instrument (Umar, 2004). Reliability tests are performed by internal consistency methods. Internal consistency is measured using the Cronbach Alpha coefficient. The decision-making provisions used are:

a) If the Alpha value >0.6 then the variable is reliable.
b) If the Alpha value <0.6 then the variable is unreliable.

Descriptive Analysis

Descriptive methods are used to describe existing facts factually and systematically. In this study, researchers used a likert scale. According to (Sugiyono, 2018) The method used is to compile the results of variable calculations in the form of questions/statements(questionnaires/ questionnaires). Each answer selection will be scored, then the respondent must describe, support the question (positive item) or not support the statement (negative item). Then the indicator is used as a starting point to compile instrument items that can be statements orquestions.

Normality Test

The purpose of the normality test is to assess the data on the distribution and in the regression model there is a normal distribution between dependent variables and independent variables. According to Sugiyono and Susanto (2015: 323) the implementation of the normalitytest can use the Kolmogorov-Smirnov test, with the applicable criteria that is if the result of significance >0.05 which means residual normal distribution.

Correlation coefficient test

In this study, the authors used Pearson's product momentum partial correlation test because the test variable was interval. According to Sugiyono (2013: 216), Pearson's product-moment partial correlation testis an analysis used to determine the strength of the relationship betweentwo variables by considering other variables as controls or constants. (As a control variable).

Table 2 Interpretation of Correlation Coefficients

CoefficientInterval	Relationship Level
0,00-0,199	Very Weak
0,20-0,399	Weak
0,40-0,599	Keep
0,60-0,799	Strong
0,80-1,000	Very Strong

Source: Sugiyono (2013:250)

Determination Coefficient Test

According to Imam Ghozali (2009), the coefficient of determinationis a measuring instrument that determines the application or precision between prediction or regression lines and sample data. The formula forthe coefficient of determination is as follows:

$$Kd = r^2 x\ 100\%$$

Information:
Kd : Coefficient of Determination
r^2 : Correlation Coefficient
   a) If Kd detects zero (0), then the independent effect on thedependent variable is weak
   b) If Kd detects one (1), then the independent effect on thedependent variable is strong.

Simple Linear Regression Test

According to (Alma, 2009:97), one of the uses of regression in this study is to predict or predict dependent variables (Y) when independentvariables (X) are known. Simple linear regression can be analyzed because it is based on a function or causal relationship between a free variable (X) and a bound variable (Y). Simple linear regression equations can be expressed as:

$$Y = a + b.X$$

Information:
Y   : Bound variable
X   : Free variable
a : Constant Value
b   : Variable Coefficient X

T Test (t-test)

According to Ghozali (2012: 98), the different t-test was used to test the influence of independent variables used in this study on severaldependent variables partially.

According to Sugiyono (2014-250), the test does use the formula:

$$t = \frac{r\sqrt{n-2}}{\sqrt{1-r^2}}$$

Information:
t   : Test value t
r   : Partial correlation coefficientr² : Coefficient of Determination N : Amount of data
    t-test the results of this calculation are then compared to t-tables using an error rate of 0.05. The criteria used are as follows:
1. H_0 rejected if the value $t_{count} \leq t_{table}$ or a sig > value a
2. H_1 accepted if the value $t_{count} \geq t_{table}$ or a sig < value a

If there is acceptance, H_0 it can be concluded that there is no influence, while if H_0 rejected means significant effect. The design of this statistical hypothesis test is to test whether there is an influence between the application of free variables (X), class-based storage methods, and bound variables (Y), against increased storage utility. The hypotheses of this study are:

H_0 : There is no Effect of The Application of Class-based Storage Methods onImproving Utilities in Waste Warehouses.

H_1 : There is an Effect on the Application of Class-Based Storage Methods onImproving Utilities in Waste Warehouses

Location and Research Schedule

The research location is where the research was conducted, in this study wasconducted in the CV Waste Warehouse. Bachtiar Jaya Plastic located in southern Tambun, Bekasi 17510, Indonesia. Focuses on the Layout section of Class-Based Storage against improving Utilities in Waste Warehouses. The research implementation time for 6 (six) months starts from February 2021 to July 2021.

RESEARCH RESULTS AND DISCUSSION

a. Overview of Research Objects

1. Company History

CV. Bachtiar Jaya Plastic is a plastic waste processing plant located inTambun, Bekasi. In addition to Tambun CV. Bachtiar Jaya Plastic also hasbranches located in karawang. CV.ini was established in 1997 which includes a family hereditary company that is now held by Mr. Yosi as the owner of CV. Bachtiar Jaya Plastic at this time. CV. Bachtiar Jaya Plastik is a plastic waste processing warehouse that has an area of 2 hectares and isable to accommodate 100 to 5000 tons of plastic waste. CV. It carries out receiving, put away, customer order picking, packing, cross docking, shipping, and storage activities carried out every weekday Monday toSaturday.

Utility levels in storage processes have a certain influence on the retrieval process to meet the level of consumer demand. Class-Based Storage method on CV storage. Bachtiar Jaya Plastic is the object ofresearch. Researchers conducted a study to see how much influence the Class-Based Storage Method has on cv. Bachtiar Jaya Plastic in the productlayout section to improve Utilities in warehouses.

b. Respondent General Profile

Based on the results of the distribution of questionnaires with thenumber of respondents as many as 30 respondents on cv. Bachtiar Jaya Plastik with a total of 20 statements can be obtained data on characteristicsbased on the age of respondents, based on the respondent's gender, and based on the length of work of the respondent.

c. Research Results

1. Variable Recapitulation of Class Based Storage Method Application From the calculation of recapitulation obtained for the overall interpersentation on the indicator is very good, with the highest value obtained by the indicator Every product in the warehouse given identityor numbering facilitates in the search and storage of products with the amount of 4.46 and the lowest value obtained indicator Quantity of products that are in accordance with the room with a number of 4.10. Therefore, on this interval scale it is determined that theinterpretation result for the Class-Based storage variable of 4.29 this number belongs to the scale of 4.21-5.00 with excellent assessment criteria.

2. Warehouse Utility Variable Recapitulation
From the calculation of recapitulation obtained for the overall interpersentation on the indicator is very good, with the highest value obtained by the Product indicator there is often a stacking and sudah provide services according to the taste or desire of the customer with a number of 4.46 and the lowest value obtained by the indicator ofordering by customers although it is not needed immediately with the amount of 4.06.
Therefore, on this interval scale it is determined that theinterpretation result for this Warehouse Utility variable of 4.33 numbersis included in the scale of 4.21-5.00 with excellent scoring criteria.

Instrument TestValidity Test

Based on test data consisting of two, namely: variable free Variable Application Of Class-based Storage Method and variable bound Warehouse Utility Improvement. Next hasil calculation from the questionnaire, which is r-Count, then compared r-Table. The results of this study showed that the significance level of rTabel (n = 30, k = the sum of all variables = 2, so n-2 = 30-2 = 28) is 0.05, and rTabel is 0.3610.

Table 3 Validity Test

Variable	Items	rtabel	rhitung	Information
	X.1	0,361	.523	Valid
	X.2	0,361	.526	Valid
Application	X.3	0,361	.623	Valid
of Class-	X.4	0,361	.431	Valid
Based	X.5	0,361	.640	Valid
Storage	X.6	0,361	.551	Valid
Method (X)	X.7	0,361	.489	Valid
	X.8	0,361	.625	Valid
	X.9	0,361	.500	Valid
	X.10	0,361	.502	Valid
	Y.1	0,361	.579	Valid

	Y.2	0,361	.616	Valid
	Y.3	0,361	.791	Valid
Increased	Y.4	0,361	.589	Valid
	Y.5	0,361	.468	Valid
Utility in				
Warehouses	Y.6	0,361	.579	Valid
(Y)	Y.7	0,361	.791	Valid
	Y.8	0,361	.712	Valid
	Y.9	0,361	.505	Valid
	Y.10	0,361	.722	Valid

Source: Data Processing Using SPSS 25. 2021

From the table above shows that the results of the validity test research for variable X (Class-Based Storage) and variable Y (Warehouse Utility) i.e. r calculate > from r table, where r table 0.361 then all questions on the questionnaire are declared valid.

Realiabity Test

Reliability test is a variable indicator for measuring questionnaire data. If someone answers, the questionnaire is said to be reliable or trustworthy. Reliability tests are measures of an instrument's stability or consistency when measuring a symptom or event.

1. The results of the application of variable reliability test Application of Class Based Storage Method
Based on the results of the survey data variable value reliability testusing 30 respondents get a statistical reliability value (Cronbach Alpha)Class Based Storage variable of 0.730 or greater than 0.6. In this case, the data from the survey conducted is reliable or has reliable results havemet the requirements of good data quality.
2. Utility Improvement variable reliability test results in Waste Warehouses
Based on the results of the variable value reliability test from the survey data of 30 respondents, the statistical reliability value (Cronbach Alpha) variable of Utility Improvement in The Waste Warehouse was rated greater than 0.757 or 0.6. In this case, the data from the survey conducted is reliable or has reliable results have met the requirements ofgood data quality.

Normality Test

The decision-making provisions used are:
 a)   If the Alpha value >0.5 then the variable is reliable.
 b)   If the Alpha value <0.5 then the variable is unreliable.
  Based on the results of calculations carried out with SPSS for Windows Version 25 software, it is known that the K-S / Kolmogorov-Smirnov normalitytest is known:
  With the two-way significance of 0.200>0.05, it can be concluded to have the same data as the normal distribution or reliable status.

Correlation Test

Based on the results of calculations carried out with SPSS for Windows Version 25 software is known to show the value of the correlation coefficient (R):

With a Pearson Correlation Significance value of 0.706, the number is included in the coefficient interval provisions with a scale of 0.60-0.799 can be concluded that there is a variable influence of the Class-Based Storage Method on Warehouse Utilities has a strong degree of correlation relationship.

Determination Coefficient Test

Based on the results of calculations carried out with SPSS for Windows Version 25 software, it is known that the determination coefficient of ^{R2} is 0.499.This indicates that the contribution of variable X (Class-Based Storage) to variable Y (Warehouse Utility) is 49.9%, while the remaining 50.1% (100-49.9)is determined by other variables outside the model that were not detected in thestudy.

Simple Linear Regression Test

Based on the results of calculations made with SPSS for Windows Version25 software, it is known that the constant value of 8,439 indicates that if the dependent variable, namely Warehouse Utility is zero, the Warehouse Utility isa constant of 8.439%. The Class Based Storage coefficient value of 0.812 indicates that an increase in Class Based Storage in one unit number will resultin an increase in Warehouse Utility by 0.812% assuming other variables are constant.

T Test (t-test)

Based on the results of calculations carried out with SPSS for Windows Version 25 software, with decision making rejection or acceptance of hypotheses with a data count of 30 and a significance level of 5%, the t-table value is 5,282. A standard for making decisions about a sought hypothesis by specifying df. In this survey (df = nk = 302 = 28), df = nk, n is the value (numberof respondents), k is the value (the sum of all variabels), and the table t value isobtained at the significance level of 0.05, which is 2.048. There are hypothesesin this study based on the comparison of t-calculate values and basic t-tables of decision making are:

a. If t-count < t-table, it is H_0accepted and H_1rejected (no influence).
b. If t-count > t-table, it is H_1 accepted and H_0 rejected (there is an influence).

There is a significant positive influence between variable X and Y, dueto the value of t-calculate > t-table (5.282 > 2.048). So that there is an influencebetween variable X on Y, or in other words H_0 rejected and H_1 accepted.

Discussion

Based on research the K-S/Kolmogorov normality test obtained the two- way significance of X is 0.200 and Y is 0.065. Since the significance value on the variable tested >0.05, it can be concluded that normal data has the same dataas the normal distribution.

Researchers obtained results from the Hypothesis Test which showed that the correlation coefficient value (R) was 0.706. then the number is included in the interval determination coefficient on the scale of 0.60-0.799, then it can be concluded that there is an influence of the Class-Based Storage Method variableon warehouse utilities has a strong correlation relationship.

While the value of the coefficient of determination (R2) indicates an R2 value of 0.499 means that the contribution of variable X (Class-Based Storage)to variable Y (Warehouse Utility) is 49.9%, while the remaining 50.1% (100- 49.9) is determined by other variables outside the model not detected in this study.

In a simple Linear Regression test result, the value a =8.493 is a constant. This means that if the Class-Based Storage (X) variable is equal to zero, then Warehouse Utility (Y) is 8,439. It is known that the regression coefficient in Class-Based Storage (X) obtained a result of 0.812 positive value.

The result can be seen if the Class-Based Storage (X) variable increases by0.812 units for each increase of one unit then it will be followed by the Warehouse Utility increase variable (Y) or vice versa if the Class-Based Storage

(X) variable decreases, the Warehouse Utility variable (Y) decreases by one unitthen it will be followed by a decrease of 0.812 units.

Based on the results of the T Test shows that Class-Based Storage (X) hasa t-count value of 5,282. The table's t value at a significance level of 0.05 is

2.048. The results of the analysis show the value of t-calculate > t-table(5,282>2,048). This means being H_0rejected and H_1accepted, or there is an influence between Class-Based Storage on Warehouse Utilities

CONCLUSION

Based on the results of research, analysis and hypothesis testing conductedby researchers regarding the effect of the application of Class-Based Storage Methods on the improvement of Warehouse Utilities, it can be concluded that there is a positive correlation between free variables and the application of class-based storage methods on the dependent variables of Warehouse Utilities.

In addition, the total value of R² is only 0.499 or 49.9% of the measurable test results. The

remaining 50.1% was determined by variables other than the models not detected in the study. **In addition, based on the results of the T test obtained the value of t-count > t-table (5,282>2,048).** It can be concludedthat it is H_0 rejected and H_1 accepted, or there is an influence between the Application of Class Based Storage Methods to Increase Utility in Warehouses.

Suggestion

Researchers have suggestions for applying the Class-Based Storage Methodbecause of its more flexibility. It is necessary to maximize storage capacity to suppress the storage process in the warehouse by reducing the storage time by less than 7 days so as to speed up the process of exiting and entering products to be recycled, and can reduce the accumulation of products in the warehouse.

Companies can also better manage unexpected demand fluctuations toimprove warehouse efficiency and effectiveness. The speed of the warehouse process and the accuracy in managing the warehouse to meet the needs ofconsumers so that the benefits of the warehouse are more optimal.

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