

PRODUCT QUALITY CONTROL ANALYSIS USING STATISTICAL QUALITY CONTROL (SQC) ON MARINE WORKS IN BUSINESS AMPLANG SAMARINDA

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Abstract

Purpose of the study: The objectives of this study are: (i) To analyze the quality control of the products applied to the amplang Karya Bahari business based on Statistical Quality Control (SQC) tools, (ii) To find out and analyze what factors cause product damage/disability amplang work at the Maritime business in Samarinda.

Methodology: This research uses quantitative methods discretionary quantitative research method that is research that is used to Investigate, find, describe, and explain the quality or features of social influences that can't be explained or Described measured through a quantitative approach. The operational definitions of this research are (i) Quality control processes, (ii) Quality control measures. Types and sources of the data the primary use of data Obtained directly from the object of research. Data collection techniques are (i) observation, (ii) interviews, (iii) documentation, (iv) laboratory tests. Analysis of the Data used are: (i) collecting the data (check sheet), (ii) a histogram, (iii) making control charts, (iv) the causal diagrams, (v) the proposed improvements.

Main Findings: The results of the study suggest that Maritime work is applied to the already on the limit of control. It can be seen at chart, upper control limit (UCL) of 1 and the lower control limit (LCL) of 0.3362 under controlled conditions or reasonable limits, but in reality, they are experiencing product damage or defect in the production of amplang processing.

Novelty/Originality of this study: This study is expected to be an additional reference for studies in the field production related to analysis quality control (quality control) and product quality by using Statistics Quality Control. This study is expected to provide information for the company about procedure control in keeping a quality product that will be produced.

Keywords: *Quality Control, Maintaining Quality, Product Quality, Business, Marine.*

INTRODUCTION

Competition in both services and manufacturing industry not only in scale companies and resource humans but also on the quality of the resulting product. Quality is an important factor in determining customer satisfaction obtained after purchasing and using the product, due to the good quality of products that will meet the wants and needs consumers so it is important for companies to keep the quality of their products to compete with other companies in maintaining customer satisfaction.

Companies that do not have a good quality product will be difficult to compete with other products on the market and will affect their profits and sustainability of the company's operations in the future, while companies that have a good quality product will be able to compete with other products and will continue to exist with increasing probabilities in Century come. Problems often arise in the production process and can affect the quality of their product is defective, so it requires move or attempts to solve the problem so kualitas product can be maintained ([Intan, 2016](#); [Jiang, Zhang, Xiao, Ren, & Chen, 2017](#)).

The company needs to do quality control of the production process to maintain the quality of the resulting product. Quality control becomes one of the important functions of an enterprise, to the quality of the products should be handled by the company's quality control section starting from raw material control, quality control of the production process until the product is ready to ship ([Assauri, 2008](#); [Mendoza & Gempes, 2018](#)). Issues quality already leads to tactics and strategies the company as a whole to have the competitiveness and survive against the global competition with other companies' products. Companies that have and implement a quality control program to better be able to survive and succeed, because through the quality control program well could ineffectively minimize waste and to increase ability compete Companies in the global market. A good quality resulting from the process is good and meets standards that are determined based on market needs ([Assauri, 2014](#), [Ahyari, 2002](#)).

Therefore, although the production process has been carried out properly, in fact often still found a discrepancy in the resulting product such as product size is too small, not tasteful to the packaging Kuran accurately so that the products are not as desired, where the quality of the product not following the standards or products produced failure/defect products. This is due to the deviation of various factors. So that the resulting product has a quality according to the standards set by the company and as expected the consumer, companies must establish appropriate quality control system, have clear

objectives and stages, as well as provide maintenance and improve quality of products and services to comply with established standards and can meet customer satisfaction. Each company has a function to control the quality is usually conducted by the control or supervision of quality are not always depend on the size of the type of product from the company. A product produced by a company can provide a considerable impact on the products and can reduce the percentage of defective products can be suppressed as small as possible, so that Companies gain a greater advantage.

Each company has a standard that is used for a product. According to [Hansen and Mowen \(2009: 279\)](#) states that no damage standard (zero defect) means that all products produced corresponding with specifications. This standard is used for a gap (gap) between the expectations of consumers with quality products produced by the company, and therefore the company should improve the quality of the product and do various efforts in minimizing the occurrence of defective products. in control quality methods of governing or discussing the quality of the characteristics of each.

Problems innovation in prevention and using Faced quality statistical tools, control resolution prevention and executed properly will affect the quality of products produced by the company.

Quality control is one of the important functions of a company. According to [Gasperz \(2007:480\)](#) is a technique of quality control and activity/planned action undertaken for reach, namely the quality control method that in the activity using the tools of statistics contained in Statistical Quality Control (SQC). Statistic Quality Control is a technique used to control and manage the products in which the production process is controlled quality starts from the beginning of production, during the production process lasts up to the finished product.

Before the product is shipped to the market, products that have been produced are inspected beforehand, where products are well separated with the ugly (reject), so that products that be produced their numbers are declining.

Quality control with useful statistical tools also keeps an eye on the level of efficiency. So, it can be used as a tool to prevent damage by rejecting and accepting a wide range of products produced by the engine, as well as efficiency efforts. In rejecting the (receiving) product, it means a bias as well as a tool to control the production process as well as gain an overview of the conclusions produced product specifications general population. If the picture is good, it means that the production process can be sustained as a result of good products ([Prawirosentono, 2007](#)).

In a region in Indonesia certainly has the typical food that serves as souvenirs. East Kalimantan region has the typical food and becomes souvenirs of the most sought after by tourists who visit in East Kalimantan amplang. In the city of Samarinda lot of outlets that sell amplang with various types such as nail amplang tiger, amplang condiments and more. Outlet amplang Oleh Oleh's provider in the city of Samarinda most is along Jalan Slamet Riyadi.

In this research, the researcher conducts due diligence on the work amplang nautical located in Samarinda Sangaji AM. Amplang effort nautical masterpiece has been pioneering efforts of 1983 are still in operation today. Amplang effort maritime works which produce one type amplang amplang tiger nails, while researchers only took samples of the product amplang tiger nails flat fish because the product is much in demand by consumers.

Based on the information that obtained from the Bahari Karya amplang effort in making production activities berjala amplang not always smooth because there is always a kendala-obstacles that cause defective products and production processes that are less optimal, or not following the SOP (Standard Operating Procedure) that resulting in defective production results by criteria disablement that no expand/hard, this type of failure is often experienced by the company, based on information from the owner H. Ibramsyah while the highest disability is in the process of production so in need of quality control to minimize disability products.

To reduce the amount than for the defective product quality control by using Statistical Quality Control (SQC) needs to be done to know the causes of product defects and can take the right decisions so that product quality is maintained so that the reduced product defects. Based on the description of the researchers interested in conducting a research entitled "Product Quality Control Analysis Using Statistical Quality Control (SQC) On amplang Enterprises Karya Bahari in Samarinda".

FORMULATION OF THE PROBLEM

1. Is product quality control applied to business Karya Bahari amplang already at the limit control if be calculated based tools Statistical Quality Control (SQC)?
2. Factors what just that damage/defects in the product Karya Bahari amplang business in New York City?

RESEARCH PURPOSES

Based on the formulation of the problem above, the purpose of this study is as follows:

1. To analyze the quality control of products applied to the effort amplang Karya Bahari based tools Statistical Quality Control (SQC).
2. To identify and analyze the factors What just that damage/disability product on amplang effort Karya Bahari in Samarinda.

BENEFITS RESEARCH

Theoretical benefits: This study is expected to be an additional reference for studies in the field production related to analysis quality control (quality control) and product quality by using Statistics Quality Control.

Practical benefits: This study is expected to provide information for the company about procedure control in keeping a quality product that will be produced.

REVIEW OF THEORY

Operations Management

Operational management is a form of optimal management and comprehensive and covers several issues, among others, labor, products that can be used as a product in the form of services or goods that can provide benefits, as well as goods of which are tools, machinery and also crude goods. Management operational is a form of regulation for operational issues and production covering the fields of services and goods. As for some of the opinion explaining the operation management, according to experts, among others:

According to [Hasibuan \(2011: 15\)](#), Operational management is a process by which the resource by following certain systems recommended and is expected to ways that controlled to add value following the policies recommended by management.

Understanding Marketing Management

Marketing management organizes all the wishes of marketing, marketing management therefore very important for the company. As some opinions that describe marketing management, according to experts, among others: According to [Kotler and Keller \(2011: 6\)](#) in the 13th edition of the book marketing management is the management of marketing as the art and science of choosing markets and targets and reach, maintain, and grow customers with creating, deliver, and communicates general customer value.

According to [Tjiptono \(2011\)](#) that marketing management is a total system of business activities designed to plan, set pricing, and distribution of goods, services, and customers can satisfy the desires of the target market to achieve organizational goals.

Definition of Production Management

Operations management begins production processes and develops into an activity that regulates the operations to run continuously. Based on the definition of production and operation management according to the experts as follows:

According to [Herjanto \(2007: 2\)](#), production management contains elements of the activities carried out by coordinating activities and resources to achieve a specific goal. According to [Assauri \(2008:19\)](#) management production and operation, activity to measure and coordinate the use of power sources in the form of human resources, resource tools, resources, and materials effectively and efficiently to create and add to the usefulness of certain goods and services. According to [Heizer and Render \(2014: 21\)](#) the management of production as serangkaian activities that create goods and services through the changes of input into spending.

Product quality

Quality is circumstances products related to goods and services in the form of performance, reliability, features, durability, and beauty that meets and even exceeds one's expectations. In general, quality is one way for companies to dominate the market. As for the people is the quality measuring tools as well as how a person in attaining satisfaction. Quality is a critical urgent to bring business success, growth, and improved competitive position. The notion of quality according to experts, among others: According to [Prawirosentono \(2007\)](#) explains the notion of quality of a product is a physical state, function, and the nature of the product concerned to meet the tastes and needs of consumers with a satisfactory according to the value of money has been issued.

Statistical Quality Control (SQC)

Statistics Quality Control is a system used to eliminate cause or deviations to match the production standards applied by the company. According to Nasution in Trysha (2017: 39), Statistical Quality Control (SQC) is a method of statistical apply theory probability of testing or inspection of samples on product quality control activities. According to Sumayang (2007: 272) Statistical Quality Control (SQC) is quality control using simple statistics to identify and remove non-random deviations. According to [Harsanto \(2013: 76\)](#) explains too much quality is the fulfillment or customer expectations through the company's products provide.

Quality Control

Quality control is an effort that is carried out continuously, systematically and objectively monitor and assess the goods, services, or services produced by the company or institution in comparison to established standards and resolve problems found to improve the quality. There are some opinions that quality control is described according to the experts, namely:

According to [Gasperz \(2007: 480\)](#) quality control is a technique and activities/actions planned are carried for reach, maintain and improve the quality of products and services to comply with established standards and can meet customer satisfaction.

The previous study that a reference in this study is the first research conducted by [Faizuddin, Poniman, and Jumi \(2015\)](#) with the title "In the Quality Control Analysis Attempts Damage Control Products Exports PT Asia Pacific Fibers Tbk Kaliwungu". With the results of these two variables that control the level of quality control and product damage. The analysis tool used is Statistical quality control (SQC). Results of production data obtained from Pt Asian Pacific Fibers Tbk unknown number Textured Yarn draw yarn production in March 2015 amounted to 22.731 Bobbin with several productions amounted to 1,134 Bobbin failure. Average failure in every production amounted to 6,90%. This value is compared with the limit of tolerance for the failure of products specified by the company in the amount of Bobbin 1,134. Average failure in every production amounted to 6,90%. This value is compared with the limit of tolerance for the failure of the products specified by the company in the amount of 6% is very far past the limits of tolerance.

Framework Research

In the face of increasing business competition, companies are required to produce a quality product. Quality is the ability of a product or service to meet customer needs ([Heizer & Render, 2014](#); [Irwan, & Haryono, 2015](#)).

In the process of creating a quality product following the standards and tastes of consumers, often still deviations that are not desired by the company resulting in a defective product which would be very detrimental to the company. To overcome this, one of the actions that can be done is to implement a quality control system to minimalist damage to the product to a level of zero damage. Quality control is a technique and activities/actions planned to achieve, maintain and improve the quality of products and services to match the standard that has been set ([Gasperz, 2005: 480](#)). This activity is done because it usually often occurs mismatch between the desired standard with production. Therefore, it in control quality need maintaining the resulting product, to conform with the standards established and following customer expectations.

Control quality could be done in statistical with using the tools contained in the SQC. Statistic quality control is a process that is used to maintain standards, measure and takes remedial action against the products or services produced ([Heizer and Render, 2014: 268](#); [Zulian, 2013](#)). The statistical quality control can be used to accept or reject products that have been produced and can be used to monitor the process and the quality of the product that is being done.

The framework used in this study to illustrate how quality control performed statistically can be useful in analyzing the level of damage to the products produced by businesses that exceed the limit amplang tolerance and mengidentifikikasi cause it to then explore solutions The resulting problem-solving proposal/recommendation improvement of the quality of production in the future

RESEARCH METHODS

Research type

This type of research is descriptive research with a qualitative approach, According to [Sugiyono \(2009: 15\)](#), the method of qualitative research is research used to investigate, locate, describe, and explain quality or features of the social influences that cannot be explained, measured or illustrated through approach quantitative, Researchers conducted a study on the business of making amplang businesses in New York City by way of analyzing the data destruction and means of quality control products obtained from craftsmen manufacture amplang scrutinized by providing a description or picture of the problems that have been identified and conducted intensive and detail of the production process amplang in Samarinda.

Types and Sources of Data

Data types

Qualitative data according to [Sugiyono \(2009: 14\)](#) is the data that is not shaped figure or in other words the data in the form of sentences, words or images. In this study of the historical background of the organization, organizational structure, and other data are taken from the document organization,

Data source

Primary data is the data collected directly by the researcher through its source to research the object under study. In the study, this researcher using qualitative data types and sources of data used are primary data.

Data collection technique

For a discussion of a problem, various data related to the problem Statistical Quality Control (SQC) for control product is damaged or not standard. Statistical Quality Control (SQC) is a problem-solving technique that is used to control, analyze, manage, and improve products and processes using statistical methods

For obtaining the necessary data in research this is used technique data collection as follows: Primary data is data obtained by researching directly to the object to be studied. Research courts do to obtain information and data is done directly, field data collection including the observation that is a way to obtain information on a fact to do the direct observation of

treatment processes amplang marine works for the sake of obtaining data or a real picture about activity effort, of them started from process amplang mixing the ingredients to be ready for the market (Hasiara, 2012: 27).

Researchers made observations by visiting and observing directly the manufacture amplang Karya Bahari.

- a. Namely by conducting interviews with craftsmen manufacture amplang and request the necessary information as an author (Hasiara, 2012: 27). Researchers conducted interviews and ask directly to Mrs. Nida's way of making amplang.
- b. Documentation is to hold decision evidence support research the form of documents, such as reports of business transactions used in conducting transactions in the production process (Hasiara, 2012: 27). Researchers conducted directly by taking photo documentation of the manufacturing process to be marketed.

RESULTS AND DISCUSSION

Quality Control Process on the Quality of Work Bahar amplang Products

Based on interviews that amplang was done to maintain the quality, so that the resulting amplang well and not disappoint the consumer and can survive the competitive market. Usaha Karya Bahari amplang always pay attention to several things:

A. Operations and production

Control of raw material is the main factors that can affect the quality of the product. If the raw materials used are of good quality or meet the standards, then the resulting product will have a good quality as well. In this case, the effort amplang marine works always inspect every incoming raw material before being used for production. Characteristics of raw materials set amplang effort maritime works, namely: (a) Determination of the raw materials used is tapioca starch, flatfish, eggs, and spices (b) Raw materials used in production amplang namely flour tapioca, eggs and fish used to be fresh. In one production amplang namely 60kg of fish, as much as 100 kg of flour, 268 eggs fish eggs with a percentage of 42%, 48% flour and spices 10%.

Control of the Equipment: The tools that are used to make amplang is a tool grinding, frying pan, cutlery/printer, tool mixers, grinders, spice smoothing tool, a tool drainer, instrument packaging, plastic basket, table process, cutting board, scales, and container. All equipment has a smooth and flat surface, no peeling, no rust, merukan not the source of microbial contamination, does not crack, does not absorb water, does not affect the quality of product and easily cleaned. The equipment is made of durable material and not of the toxic material. The tools used will be cleaned after the production process is completed and for treatment, Mesin Mesin used will be checked if damaged.

Control of the Resources Human: In quality control in human resources, business amplang Karya Bahari perform several stages as follows:

- The recruitment process is done on New employees usually attempt amplang Karya Bahari will advertise on social media, with the following requirements: (i) Minimum age 24 years for employees in marketing and 45 years for employees of the production. (ii) Minimum Education SMA/SMK for employees in marketing and there is no minimum education of employees in production. (ii) Their willingness/intentions of work owned candidates. (iv) Having experience in the field sales/production of food would be an advantage.
- Employees who received doing training work briefly given by the person responsible for the production and training of store employees will be given the same old employee.
- Usaha Karya Bahari amplang will conduct surveillance and checks on the production and marketing process in a few weeks. This matter was done to minimize the errors that occurred.

Procedures/methods (SOP) development amplang: Before starting the production process, employees amplang inspect raw materials and equipment to be used for production so that all is ready for use.

B. Production process

The stages in the production process, namely:

- Process pengerikan fish and milling newly arrived fish cannot be directly processed into the dough but live scratched using a knife, then the fish will be separated from the meat and bones. Having scraped off the fish will be milled until smooth and after completion of grinding the fish which has been refined to be stored into the freezer for 1 night and the next morning can only be processed into dough amplang. The fish used in one production is 60kg (before fish scraped).
- The processing of all materials standard Then after the next day of fish that have been stored in the freezer will be processed by mixing all ingredients become one. Such materials are today as much as 100kg of cassava flour, eggs are 268 grains, and spices as much as 15kg. materials that have been prepared this will mixed together in a container using a mixer until fluffy dough.
- The printing process dough After done on process processing, the dough will be printed following type amplang. For amplang tiger nails nail the batter will be printed to resemble the size of 1 cm.

- The process of frying dough: The printed dough should be fried so the resulting color is good. Frying amplang was conducted for 25 minutes. Amplang standards-compliant color is golden yellow and deep-fried amplang will expand by 2X of the raw dough.
- The process of draining amplang.

Then amplang that are deep-fried or cooked and then be drained using a spinner machine oil attached to nothing. Packing by part packing. Generally, amplang quality criteria are: (i) Tuscan(ii) not hard (iii) according to size

Factors Considered by Karya Bahari amplang Enterprises in Implementing Quality Control

To do process production and produce a quality product, an attempt to establish standard specifications and limits of deviation of product that is acceptable to determine expiry of product.

- a) Packaging process amplang: After completion of the draining process using a packed amplang plastic polypropylene and plastic covered with the adhesive machine. Amplang are packaged to be coded production and date expiration.
- b) Amplang the packaging process will be sent after packing amplang in packaging units with different sizes/weights, then followed by packaging using cardboard with the contents of each pack 5-20.
- c) The cleaning process: Cleaning all the tools used for the production to be used in the production of the next day.

Control of the finished product does before packing step and conducted through the examination. The thing this amplang did by examining a new production out of the machine if there is damage or not, products that damage will be separated from the good products from reaching the hands of consumers. A good product then do is something product otherwise good or not. However, to achieve and maintain a quality product that produced, problems faced effort amplang is related to the products that are produced in reality there are always differences with spesifikiasi standards that have been established and the damage is likely to be high even exceed the tolerance limits specified damage. Therefore, to overcome these conditions, several factors must be considered amplang efforts so that the product is consistent and under the specifications set by amplang effort. These factors, among others:

Labor: In contrast to the technical factor, the human element as power work has a complex nature. Physical and psychological factors in each individual will affect the capacity and work performance. Physical factors are physical state agencies concerned, as age and health. While the psychological factor is the mental state of labor is concerned, motivation, and living conditions of workers daily. Besides, education and work experience also greatly affect performance.

Have awareness to maintain and improve the quality of products produced, so that the products of good quality will ultimately provide benefits to workers. To overcome this, the business amplang nautical masterpiece has provided some social security and welfare for employees in the form of facilities which include: participation in the social security program, provide hall treatment, providing holiday allowances, engage in life insurance and bonuses by the relevant employee performance.

Raw materials used: Raw materials used by the company greatly affect the quality of the products, while the main raw material used amplang business flatfish, tapioca starch, eggs, and seasoning spices.

Machinery and equipment: In producing the work effort amplang marine production engines used to produce amplang is a machine freezer to accommodate fish, messing fish grinder, mixer machine to knead the dough amplang and spinner machine to drain amplang that are deep-fried.

The working method used: The working method used amplang effort very big influence on the smoothness of the production process. The proper functioning of the working methods applied within the company to manage all the parts involved in the process production will reduce the number of defective products occurring. The same thing happens when the run method is not executed with well then, the possibility of defective products increases. The method to control the quality of products. This amplang attempt is made utilizing reports relating to the activities in the field of production. Checking itself is done at each stage of the process production by part quality control.

Happenewdill noted in the report card so that the production results Such irregularities can be immediately addressed.

State of the environment and working conditions: The state of the environment and a good working atmosphere will affect their job performance. Adequate lighting, air circulation is good, clean workplace, temperature, security, and safety are guaranteed and a good layout will make the workers feel comfortable and secure in doing work that could lead to improved employee performance achievement. Working conditions and environment businesses perceived amplang marine works well enough temperature inside the room despite high production. The temperature rise is attributed to the weather in the city of Samarinda which is also caused by the temperature of heat coming from the production machines are used. Although somewhat disturbing, it does not seem to affect the level in the factory for air circulation can work well through ventilate-air vents that may be in the production room also fan installed inside the production room.

Damage in the production amplang: In doing activity production process control, still, there is damage to amplang produced amplang marine works fairly high even exceeding the tolerance limit damage to the product specified in the

company. Amplang venture parties should strive to complete problems that arise immediately. Packaging products that occur less glue on wrap packaging products.

Inspection Sheets (check sheet): In conducting statistical quality control, the first step to be done is to make a check sheet, check sheet useful for simplifying the process of data collection and analysis. Also, it is useful to know the problem areas based on the frequency of the type or cause and take the decision to make improvements or not.

PROPOSED ACTION IMPROVEMENT (RECOMMENDATION)

After learning cause of amplang damage amplang efforts on maritime work, then prepared a recommendation or proposed improvements to reduce the level of damage to products is as follows:

Creating a new working section: in charge of supervising and re-checking the performance of employees to reduce errors caused by employees.

Checking readiness: machine carefully before use and perform maintenance routine engine as well as providing spare parts replacement engine components often enough so as not to inhibit the production process.

DISCUSSION

Based on the results of research conducted by researchers and the results of the analysis related to product quality control efforts on amplang amplang Karya Bahari on the findings contained Samarinda by researchers that occur disability/damage product that caused by the employee on the product packaging. The employees were negligent and less scrupulous become one of the main factors of damage to the product.

Disability or damage caused to the product amplang is in process packaging product that resulting machine adhesive less checking so that no glue on the packaging. In amplang product packaging process is one of the responsibilities of the employees in the packaging department. So that when the product packaging is done in a hurry and not following the SOP it can lead to defects in the product as well as the loss of revenue suffered by businesses amplang Karya Bahari.

Based on the graph p-chart that the quality control is done on the processing business is still understood better amplang nautical masterpiece has not been controlled and many beyond the control limit. Damage or defect that occurs in amplang product can be considered normal or reasonable if it does not cross the line control.

The theory behind or in line with the results of this study are according [Assauri \(2008: 3\)](#) discussion in the operation of production systems and operations which includes:

- a. Preparation of production plans and operation.
- b. Planning and control supplies and materials procurement.
- c. Maintenance or engine maintenance and equipment.
- d. Quality control.
- e. Workforce management. From these results, it can be seen that the business of maritime works amplang they experience a failure of the packaging process caused by employees who do not carry out proper SOP causing damage product on part packaging. So, businesses should improve its maritime works amplang back quality of human resources (HR) to avoid damage to the manufacturing process to come.

This is supported by previous studies with the title of Quality Control Analysis (Quality Control) In the Production Process at Home Industry amplang Flat Mahakam in Samarinda. This study used four tool analysis that is sheet proofing, histogram, a causal diagram, and map control. Results of the study this control procedures quality applied capable of maintaining product quality flat amplang Mahakam in Samarinda.

In this study control analysis quality product use statistical quality control (SOC) on amplang enterprises karya bahari.

SUGGESTION

From the above conclusions, advice given to the company are: (a) Should the company run and apply correctly SOP that has been applied in writing. (b) Should the company provide job training as a way of processing the product, how to market to consumers?

Furthermore, the authors suggest that researchers can conduct further studies using different methods and the latest research. Samarinda namely quality control (Quality Control) made capable of maintaining product quality, but there are still some things that need to be improved, namely to minimize product defects that occur and try to minimize further damage to the product even though the percentage of time This is still within the limits control / reasonable as well as reduce the level of errors made by employees.

CONCLUSION

Based on the results of data analysis and discussion that has been stated previously, this study can be concluded as follows:

- Quality control in business amplanng: Maritime work is applied to the already on the limit of control. It can be seen at chart, upper control limit (UCL) of 1 and the lower control limit (LCL) of 0.3362 under controlled conditions or reasonable limits, but in reality, they are experiencing product damage or defect in the production of amplanng processing.
- Factors damage or disability caused by a lack of checking the machine so that the glue on the packaging less attached.

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