THE INFLUENCE OF THE TOTAL QUALITY MANAGEMENT AND INNOVATION ON THE ROLE OF CAPABILITIES TECHNOLOGY AND ITS IMPACT ON PERFORMANCE AN EMPLOYEE (SURVEY IN COLD STORAGE COMPANIES IN MACASSAR CITY)

ARIMANSAH SAHABUDDIN¹, MUHAMMAD ASDAR², SYAMSUL ALAM³, JUSNI⁴

¹ The Study in Phyloshopy of Doctor Program in Economic and Business Faculty in Hasanuddin University, Makassar.
² And Lecturer Department of Technical, University State of Makassar (UNM), Makassar
³ Faculty of Economic and Business, University of Hasanuddin, Makassar.

ABSTRACT

The purpose of this research was to give an empirical evidence and find clarification on the phenomenon influence the application of the total quality management and innovation on the role of capabilities technology and its impact on performance an employee (Survey in cold storage companies Makassar City). Methods used is research a survey data collection use kuisioner to know evaluation by respondents employees cold storage companies in the city makassar to variables of the study. As for the kind of research this is deskriptif-verifikasi. The sample size of 260 had been taken by technique random proportional clusters of sampling of the population target about 1236 spread in three companies in the cold storage makassar. To test hypotheses proposed analysis equation used modeling structural or structural equation modeling (SEM) according to the model composed through model measurement and structural model a causal relation between variables. The implications of the research this is that capability technology is a dominant influence study compared to variable other productivity against employee performance. Variable next innovation having influence that are more dominant, good against technology capabilities and direct influence on productivity of employee performance and indirectly through technology capabilities compared to variable total quality management.

Keywords: Total quality management, innovation, technology capabilities, productivity employee performance.

BACKGROUND

Today has been developing a new trend in the system guidance the quality of food products, the processed products especially fishery products. The nucleus of the trend is used a system of new approach to product for quality supervision that are more oriented towards on the principle of detection and prevention of the disease in a premature manner (preventive measure). Talking about the quality of the outcome fisheries cannot be separated from management system applied to companies by using a cooling system (cold storage). The quality is one of an important part and need to get serious consideration for managers in running its strategy. In this era of global competition now, will happen kecendrungan the process of development a better product, more sophisticated, and higher quality, but along with the declines in productivity fisheries, the predicate the state exporter fisheries earned Indonesia changed into the state importers large enough when ini.terkait to this, fisheries industry have many problems. Starting from the quality of up to handling and industry his supporters, namely a mistake in handling provided through the process of cooling. An indication this is the cause of the problem in cold storage companies in south sulawesi.
With respect to the problems in cold storage companies which is in south sulawesi the lack of the means of production and uncertainty about when the technical culture .It takes an attempt innovation sustainable .Innovation is a the most important thing for industry both small , medium and was , especially for their the reliability of operational company .Another indication of arising particularly in relation to industry cold storage in south sulawesi is related with aspects of technology .With the advent of the science and technology cannot be ignored also that consumers to be more choose having standard technology suitable and hygienic .Cold storage companies in south sulawesi still use instrument , specifications and technology standard to the level of the ability human resource still have weakness and limited in the use of tools technology .For example in the use of technology cooling composition normal the air is 78 % ni

Worsened again with decreasing quality itself cannot be avoided. The process of respiration at the time of storage affect the composition of the chemical content, as of content of these products .Although treatment has been experiencing as the regulation of temperature low .Packaging of system also brings the influence of that product .Therefore need to be conducted research to systems technology used as the use of modified atmosphere storage ( mas ) in temperature packaging polyethylene storage space

Order to ensure that only products meet the specifications who have required to consumers , so should apply quality management company designed in the overall company activities .The concept of management is not currently is focused on production process just activity , but extends toward participation in integratif. In the development of the fisheries sector in south sulawesi , and facility it’s very important , ranging from the preparation process at the distribution process fisheries obtained .The fisheries sector in south sulawesi be one of the main sectors because out of this sector foreign exchange enough bring and benefits and income for the ini. peranan cold storage as shelters / temporary storage , useful to keep the quality catch before distributed , and is a means of supporting post in the process of handling arrest for selling price in market

In addition the problem that is not less difficulties faced by the company cold storage in south sulawesi is a decline in employee performance who have also resulted in a decrease in productivity produced. For example by the use of technology improper but the results obtained only and income employees was down .For example in the time of the temperature was supposed to pendingan 7400 minutes ( 123 hours 20 minutes ) and the coldest reached 30 degrees celsius .But the ability of storage the company does not able to achieve a specified standardization.

Innovation affect the level of investment implications can increase of employee performance .Strategy innovation done in answer to every problem which faced by cold storage south sulawesi with the changes and growth with the market demands so that it can be taken appropriate action and corresponding to handle it .Referring to the discussion identification problems above , the research is restricted by some variable research which as follows: total quality management , innovation , the role of technology capabilities , and productivity of employee performance .

METHODEOLOGY

The study is done to obtain information about the effects of the total quality management and innovation on the role of technology capability and its impact on productivity employee performance at the cold storage in south sulawesi .In accordance with the purpose over hence the kind of research use is deskriptif-verifikatif, because this study aims to test answers problems that the truth temporary (hypothesis) according to the theory of certain or empirical data ( sugiyono , 2008 )

Therefore the methodology used is explanatory survey , for research it uses population sample / to explain the relationship between variables researched ( sugiyono , 2008 ) .Seen from the time , but this study is cross sectional , namely information from some population ( sample respondent ) collected directly on the scene in empirical , with a view to know the opinion of the population to object being examined ( current , ) 2006 .The analysis of the research is cold storage company in south sulawesi about three companies are located in industrial estate Makassar

The testing of hypotheses descriptive using a statistical technique rata-rata value terbobot weighted mean score ( wms ) .While in research verifikatifnya used the technique modeling and which will be used
as a tool the analysis (analysis) is the method structural equation modelling (shem) based variant with the help of use of LISREL program

RESEARCH RESULT

A fishing development has been applied recently in south sulawesi, has proven it is a good enough supported by cold storage technology, especially in makassar which is shelters center and fishing products. But on the other hand inattention employees of a company cold storage on the quality of continuity processing and the fishing is still the obstacles and the lack of knowledge and technology mastery optimal, so it is not uncommon for of them had losses due to price relatively cheap and quality and quantity of goods do not reflect the market needs. This indicates the importance of management and technology mastery the fishing.

(Structural Equation Modelling)

The analysis model used in this study is structural equation modeling (shem) based on two approaches model, the measurement model and structural model. Determination size proportions variance, each variable manifes (indicators) done through model measurements on every variable latent examined, in order to know the amount contributions each variable manives in forming variable latent. Followed by measurement value construct reliability to determine the degree of indicators in forming variable latent. But the magnitude of construct reliability accepted is between 0.5-0.7 (hair et al., 2006; 777-778). Followed by measurement the level of model (goodness role of fit) based on several criteria size of (role model goodness-of-fit)

- seen of the value of RMSEA (root mean square error of approximation) to model the treatment of 0.09431 shows a model that obtained meet the criteria in which expected value rmsea small (less than 0.9933).

Thus can be said that the measurement result conformity absolute shows a model that obtained meet the criteria goodness of fit on the size RMSEA.

1. Measurement TQM model

A measurement tqm depends on the magnitude of the contribution of masing-masing dimensions or factors that forms variabel latent or konstruk. But variable manives of tqm be to focus on customers, benchmarking, and pelatihan. bahwa from 9 indicator build tqm, there are several variables manives having kontribu dominant

The construct reliability of the 9 dimensions of forming tqm 0.8881 that reflects the construct that it is reliable, where its score was from that in recommend that 0.7 so the entire items indicators (variable manives) of the tqm having measurement value construct reliability to determine the degree of indicators in forming variable latent. But the magnitude of construct reliability accepted is between 0.5-0.7 (hair et al., 2006; 777-778). Followed by measurement the level of model (goodness role of fit) based on several criteria size of (role model goodness-of-fit)

- seen of the value of GFI (goodness of fit index) to model the treatment of 0.6681 shows a model that obtained enough to fulfill criteria, where expected value gfi approaching 1 (&gt; 0.90)

The quality and the development of technology mastery for employees of a company of cold storage is vital to improve the quality of fish processing results orientated on demand market and the sustainability of effort based on professionalism in running the business. Pertaining to the development of the quality and mastery of technology, hence of crucial importance to describe characteristics of respondents, : the length of them work, age, education, reason be employees, the perception on training and technology mastery, as well as market information.
of 0.5728 on top of the recommended with 0.5 , shows that the information contained in 9 indicators can be represented to explain variable tqm.

2. Measurement innovation model

Shows an indicator of stages of development ( x11 ) dominated the value of other indicators in building product innovations and is an indicator of variable innovation .Thus it can be said that dimensions stages of development having role bigger among dimensions product innovation .The contribution can be explained through an assessment construct reliability and variance extracted for each an indicator of variable innovation .

Value construct reliability from 9 indicators innovation greater than the approach recommended, so that it can be said a whole an indicator having degree conformity in forming innovation .One of T count of a whole indicators shows a value that greater than the T critical 1.96 , so that it can be said that a whole an indicator having level significance in forming innovation . Next value variance extracted of 0.5340 greater than the approach recommended that is 0.5 which it is made clear that the information contained in the ninth indicators can represented in clarifying innovation .

3. Measurement Technology Capability model

Model capabilities considered measurement technology through contributing indicator can form capabilities variable technology .But the value of masing-masing an indicator of intent variable entrepreneurship , that the of the technology capabilities based on the value of the track of 3 dimension , namely: production capabilities , investment capabilities , innovation and capabilities .The three dimensions each consisting of three indicators , having the contribution of value on technology capabilities .But indicators that have the highest score is the ability to receive the order ( y5 ). The construct reliability of the three indicators in forming technology capability , where the ability to receive the order ( y5 ) having value that question the dominant of .Overall an indicator of technology capabilities of the contributions larger than the in recommend that 0.7 which means that into nine an indicator having degrees in forming capabilities of technology , while the things from each indicators larger than 1.96 shows that the whole items an indicator having significant influence in shaping technology capabilities .Then based on variance extracted of 0.5138 shows on top of the recommended with 0.5 so that it can be said that the information contained in every indicators can be represented to explain technology capabilities

4. Measurement Productivity Employee Performance Model

Employee productivity performance is measured using two dimensions dimension where by each consisting of four indicators .Two dimensions which measure on behavior economic picture above indicates that there are indicators that have the contribution of the influence that the dominant performance against productivity , namely indicators the use of raw materials , that indicator of eighth in measuring productivity performance having value construct reliability greater than the value of being recommended , namely $ 0.7 .That it could be indicators that eighth of having two dimensions of the requirements to the level of conformity in forming variable konstruk productivity performance .Next value variance extracted worth 0.5607 exceeds the value of being recommended , namely 0.5 so that can be said that indicators to eight from two dimensions to variable construct productivity performance represented in forming variable latent economic behavior

**HYPOTHESIS TESTING**

First Hypothesis Testing, Effect of TQM, and Innovation to capabilities technology

1. High technology and low capabilities influenced by tqm of 0.0094 or 0.009 %:Technology capabilities will translate through dimentions,
namely y1 (conformity) products, y2 (conformity) information, y3 (conformity hope), y4 (standards of service), y5 (the effectiveness), y6 (the desire), y7 (empowerment) employees, y8 (utilization) time, and y9 (willingness employees). Thus the higher TQM, but indicated can improve capability technology built over y1, y2, y3, y4, y5, y6, y7, y8, and y9. But the influence of each TQM dimensions or variable capabilities manives of technology are: 0.006, 0.006, 0.006, 0.005, 0.007, 0.006, 0.006, 0.006, and 0.006. This indicates that the variable TQM having influence an insignificant.

2. High technology and low capabilities influenced by innovation of 0.6420 or 64.2%. Technology capabilities will translate through dimensi-dimensinya, namely y1 (discovery) facilities, y2 (conformity specification) products, y3 (standard time), y4 (the availability of financial sources), y5 (order acceptance), y6 (the utilization of technology), y7 (ability to adapt), y8 (ability innovation), and y9 (the use of a source of information). Thus the higher innovation, but indicated can improve capabilities technology built over y1, y2, y3, y4, y5, y6, y7, y8, and y9. But the influence of total innovation masing-masing dimensions or variable capabilities manives of technology are: 0.430, 0.437, 0.379, 0.327, 0.482, 0.398, 0.443, 0.385, and 0.405.

Second Hypothesis Testing, Effect of TQM, and Innovation to capabilities technology

1. The percentage of the direct effect of each variable latent determined the results of the square of the coefficients line. While how major masing-masing variable latent against dimension of the productivity employee performance obtained through between the result of the variable latent with the dimensions technology the capabilities

2. High and low employee performance influenced by TQM of 0.0757 or 0.573%. Translated by productivity employee performance through dimensions, namely z1 (the use of raw materials), z2 (the skill), z3 (conformity) time, z4 (quality standards) products, z5 (understanding employment guidelines), z6 (work), z7 (working results were), and z8 (timing). Thus the higher TQM, but indicated can increase productivity employee performance built through z1, z2, z3, z4, z5, z6, z7, and z8. But the influence of total TQM each dimensions or variable manives of all of our productivity employee performance is: 0.030, 0.028, 0.026, 0.027, 0.021, 0.027, 0.020, and 0.027. This indicates that the variable TQM having influence less significant

3. High performance and low productivity of employees affected by innovation worth 0.9867% or 98.7%. Translated by productivity performance through dimensions employees, namely z1 (use of raw materials), z2 (the level of skills), z3 (conformity time), z4 (standards of quality product), z5 (understanding) guidelines for employment, z6 (working results), z7 (on the work that competes), and z8 (punctuality). Thus getting higher innovation, then indicated can increase productivity employee performance built through z1, z2, z3, z4, z5, z6, z7, and z8. As for the size of the total influence against
each innovation dimension or variable manifests performance from productivity of employees is: 0.385, 0.365, 0.335, 0.355, 0.276, 0.355, 0.266, and 0.345.

4. An coefficient variation explain how major jointly variable tqm and innovation against productivity of employee performance. How major secara bersama-sama is as much as 0.7687 or 76.9% where error the rest is a variant of 0.2313 or 23.13%. are how major caused by other variables that is not examined in this research.

5. Seen from the total their influence on productivity employee performance, variable innovation having influence most dominant employee performance against productivity, by 0.9867 or 97.36% and followed variable tqm by the influence of 0.0757 or 0.573%.

6. Views based on the impact in dimension productivity employee performance, variable tqm the biggest contribution in z1 (the use of raw materials). Then variable innovation has the largest contribution to increased productivity employee performance, especially in dimension z1 (the use of raw materials), z2 (the skill), z4 (quality standards) products, and z6 (work). While dimensions indicated received the same influence of changes innovation.

7. Based on statistics the coefficient lane t count, variable tqm and innovation having significant influence on variables productivity employee performance. Value t count on diagrams track for variable tqm worth 2.99 larger than the value of t table worth 1.960 on α: 0.05 and degree of freedom: 260. Next to a coefficient lane t count the value to variable innovation performance against employee productivity is 10.57 larger than the value of t table: 1.960 on α: 0.05 and degree of freedom: 260.

Third Hypothesis Testing, Effect of TQM, and Innovation to capabilities technology

1. The percentage of a direct impact of the technology capabilities determined the results of the square of the coefficients lane. While the capabilities variable influence technology on dimension of the productivity employee performance obtained through result of between the capabilities coefficient variable technology with the productivity the dimensions employee performance.

2. High and low employee performance influenced by technology capabilities of 0.9867 or 97.36%. Productivity employee performance will translate through dimensions, namely z1 (the use of raw materials), z2 (the skill), z3 (conformity) time, z4 (quality standards) products, z5 (understanding employment guidelines), z6 (work), z7 (working results were), and z8 (timing). Thus the higher technology capabilities, but indicated can increase productivity employee performance built through z1, z2, z3, z4, z5, z6, z7, and z8.

4. Based on the statistics coefficient t count, variable capabilities technology is significant influence on variables productivity employee performance. The diagram t count on track for the technology 8,08 capabilities of greater than the table of t 1,960 on α: 0.05 and degree of freedom: 260.

Fourth Hypothesis Testing, Effect of TQM, and Innovation to capabilities technology by Technology Capability

1. The percentage of indirect effect of the tqm and innovation determined based on the summation rank two of the each coefficient. While the indirect effect variable tqm and innovation through technology capabilities obtained through summation result of, both between the variable coefficient tqm and capabilities kapabilitas technology with
technology and productivity employee performance as well as through summation result of, both between the variable the innovation and technology capabilities with technology and productivity employee performance.

2. Coefficient variation explain how major indirectly by variable tqm and innovation productivity performance against them through technology capability. The contribution indirect effect tqm productivity performance against them through technology are capabilities 0.0049 or 27.48 % and the rest of 72.52 influenced by other variables that is not at all. Then the contribution indirect effect innovation productivity performance against them through technology are capabilities 0.3365 or 68.68 % and the rest of 31.32 % influenced by other variables that is not at all.

CONCLUSIONS AND RECOMMENDATIONS

A. Conclusions

Based on the analysis and synthesis problems presented above

1. There is the of technological innovation capabilities, instead there is no influence the quality of technology management capabilities. In another sense that: the innovations in cold storage bebarapa company will have an impact on the technology capabilities built over some dimensions, namely: y1 (discovery) facilities, y2 (conformity specification products), y3 (standard time), y4 (the availability of financial sources), y5 (order acceptance), y6 (the utilization of technology), y7 (ability to adapt), y8 (ability) innovation, and y9 (the use of a source of information).

2. There is the total quality management and innovation employee performance against productivity. Based on how

B. Recommendations

Based on the research done mentioned above, and allow to make some suggestions research, namely:

1. Because unit analysis examined in the research is scale companies medium, then possible to do research in advanced in a large scale companies by inserting variables review more

2. The development of total quality management less contributing to the development of capabilities in an appeal technology innovation, then the company
should keep trying to build capabilities human resources through the development of innovation among employees and companies leaders as capital in increases the excellence of compete
3. Relation with the productivity of employee performance as one of the most important

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