

# THE PERFORMANCE IMPROVEMENT OF OCBC NISP BANK'S TRADE OPERATIONS DIVISION EMPLOYEES : APPLICATION OF ANALYTIC NETWORK PROCESS METHODS

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**Abstract.** This study discusses the system design for improving the performance of OCBC NISP Bank's Trade Operations division employees using the Analytic Network Process (ANP) method. Performance measurement and scope of analysis is carried out on the activities of employees of the Trade Operations section in the process of issuing LC documents. This research determines what policy strategies can help improve the performance of OCBC NISP Bank's Trade Operations employees. The results of the study using the ANP method show that by implementing a productivity-based compensation system is a top priority with a priority weight of 42.69%. Whereas work process improvement is the second priority with 36.72% priority weight. For the last priority, the sequence is the preparation of the right target and key performance indicator (KPI) with a priority weight of 20.57%. Based on the results of ANP analysis, implementing a productivity-based compensation system provides the highest benefits and opportunities compared to the risks that may arise. Productivity-based compensation will motivate employees to compete to increase productivity to get better compensation compared to employees with lower productivity.

**Keywords:** Letter of credit, ANP, Improvement of Employee Performance, Trade Operations

## I. INTRODUCTION

Indonesia as an open economic country does not only conduct domestic trade but also international trade (Aspan [1]). The reason why a country conducts international trade is to profit from the exchange of goods and services produced through specialization in fields that have comparative advantages (Afin [2]). The needs of goods and services that are different between one country to another make the export and import trade transactions increase (Hakim [3]). Data from the Central Statistics Agency (BPS [4]), show cumulatively the value of Indonesian exports from January to June 2015 reached USD78.29 billion and the cumulative value of imports from January to June 2015 reached USD73.94 billion. The high value of exports and imports shows that Indonesia has the potential to continue to increase the export-import trade. Export performance is a very influential factor in economic growth, so it needs to be optimized to increase foreign exchange and create a national trade surplus. On the other hand, the accounting contribution of imports will reduce economic growth in the formulation of gross domestic product so that it continues to be strived to be minimized both with similar products or substitutes from within the country or with obstacles in the form of tariffs and quotas. Banking as one of the supporters of the country's economy and also supporters of export-import activities specifically also experienced high transaction growth and productivity. One of the roles of banks in

export-import transactions is as a guarantor and payer facilitator.

The method of payment made by banks in facilitating export-import transactions, among others, uses letters of credit (LC) (Setiawan [5]). The export-import trade transaction using LC is widely used by exporters and importers because it can protect the interests of both parties (exporters and importers) of the risks that might occur, such as the type of goods traded is not appropriate, payments that do not match the agreement, and others) (ICC [6]). OCBC NISP Bank is one of the banks that makes export-import transactions one of its main businesses. The increasing volume of LC transactions at OCBC NISP Bank should be balanced with the performance of employees, especially the Trade Operations section. This performance improvement can be shown by the more effective and efficient employees in carrying out their work so that the growth of LC transaction volume can be handled with the number of employees not increasing in number. In this case, the capacity of Trade Operations can be used as a parameter in measuring the success of the company towards achieving revenue targets from LC transactions conducted.

Based on the background, the problem statement of this study has the objective of improving the performance of employees of OCBC NISP Bank's trade operation division in facing the challenges of increasing the volume of export-import transactions using LC. In-depth analysis in terms of human

resources (employees) at this time must also be done in order to make appropriate decisions to improve employee performance. One of the decision-making methods that can be used in the process of improving employee performance in the trade operations section of OCBC NISP Bank is the Analytic Network Process (ANP) method. It is able to show employee competency values in accordance with criteria set by the company or decision makers based on systematic data analysis (Mohanty [7]). According to Rukmi et al. [8], ANP method is a performance assessment method that uses a scale to measure performance factors.

The formulation of the problem in this research is what policy can be used to improve the performance of employees in the Trade operations section of OCBC NISP Bank.

The purpose of this study is to determine what policies can be used to improve employee performance in the OCBC NISP Bank's Trade Operations section.

This research was conducted at the trade operations department at OCBC NISP Bank. The measurement and scope of analysis will be carried out on the activities of trade operations employees. The transaction measured in this study is the issue of LC. The policy-making process is based on the ANP method.

**Relevant Research Result**

The results of previous studies relevant to this study were used to describe the position and feasibility of this research study. Fitzsimmons [9], conducted an analysis related to the application of gainsharing in certain groups. The application of gainsharing increases productivity by an average of 15%, while there is no significant increase in productivity for application to individuals. Money is a powerful motivator to improve performance and rewards that are preferred by employees. This study focuses on increasing productivity as a result of applying profit sharing and incentives in the form of money as a reward.

Pribadiyono [10] said that the design of the technique of measuring individual productivity in the workplace was associated with the job description and the key result area. This is needed to plan the calculation of bonus individual work performance based on achieving productivity. This research shows that human resources play a role in achieving organizational goals and it is necessary to always increase productivity or performance.

Figure 1 illustrates that with a fixed number of employees and an increasing number of transaction volumes, employee productivity must continue to be improved so as not to reduce the service level agreement for customers while providing optimal support to business parties. Therefore it is necessary to analyze the actual conditions of the trade operations

work unit to find out and develop appropriate strategies for improving the performance of the work unit.

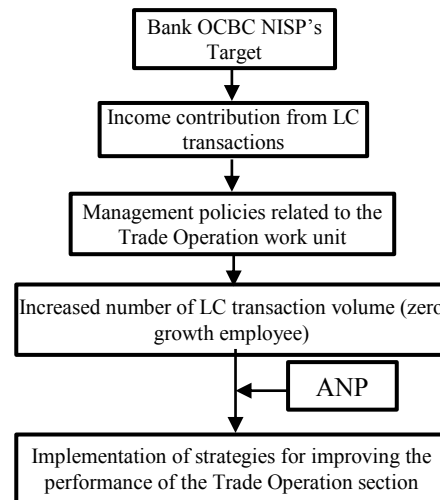


Figure 1 Research Outline

**II. RESEARCH METHODS**

The performance improvement proposed by experts is fulfilled using the ANP method. This method is used to determine the criteria that affect the performance improvement of employees in the trade operations section of OCBC NISP Bank. Data processing has been got by using Super Decisions software to determine the weight of each criterion and choose the best policy to improve employee performance in the trade operations section of OCBC NISP Bank. Data analysis is sorted according to the questions and objectives of the study. Based on it, there will be several steps that need to be done in this study. Each stage requires a different analysis tool. But it is interrelated because each analyzer gets data from the previous analysis stage. The ANP method produces a framework for overcoming compensation problems without making assumptions related to independence between higher level elements with weaker and more independent elements at one level.

**Types and Data Sources**

The data used in this study are primary and secondary data. The primary data were obtained through interviews that had been prepared and the observation of trade operations. The results of the observation will strengthen the formulation of the problem and the determination of the research objectives. Secondary data is obtained from OCBC NISP Bank. It is also used to obtain an overview of the structure and employment policies, especially the current compensation system.

Respondents in this study were parties that were directly or indirectly related to the operational

processes in the trade operations section of OCBC NISP Bank. Respondents in this study were the Head of the ODD Division, Head of the TBOD Division, Head of the TROPS Department, Operation Service Head, and Special Operations Trade.

**Identify Criteria, Sub-criteria, and Alternatives**

The results of the super decision processing software are three types of super matrix tables, namely (1) cluster matrix (criteria), which shows the relationship between clusters/criteria; (2) Super matrix Weights, where each column eigenvector block in a cluster is weighted with priority from the influence of the cluster, which makes the Weights Super Matrix column stochastic; (3) limiting supermatrix is obtained by raising weighted supermatrix so that the number in each column is one.

**Criteria Analysis**

The criteria specified in the ANP model for improving the performance of trade operations employees, especially employees in charge of issuing LC documents, consist of six criteria, namely: motivation, skills, technology, compensation, opportunities for achievement, and the environment or work climate. This criterion is the result of identification of several work divisions at OCBC NISP Bank using the approach of depth interview to selected respondents and list compliance which is then mapped into the ANP model.

**Sub Criteria Analysis**

The sub-criteria contained in this model are factors that influence employee performance in the LC document publishing process, which is a derivative of the criteria (performance category). In determining the sub-criteria, first, a literature study was conducted and conducted interviews with competent parties so that sixteen sub-criteria were obtained (Table 1).

Table 1 Categories and Performance Groups

Categories	Performance Groups
Motivation	External
	Internal
Skills	Level of education
	Training
	Work experience
Technology	Technological devices
	IT system
Compensation	Salary
	Benefits & facilities
	Incentive
Opportunity for achievement	Career path
	Opportunities from superiors
Work environment and climate	Office comfort
	Employees and leaders relationship
	Team work
	Work culture

**ANP Model Preparation**

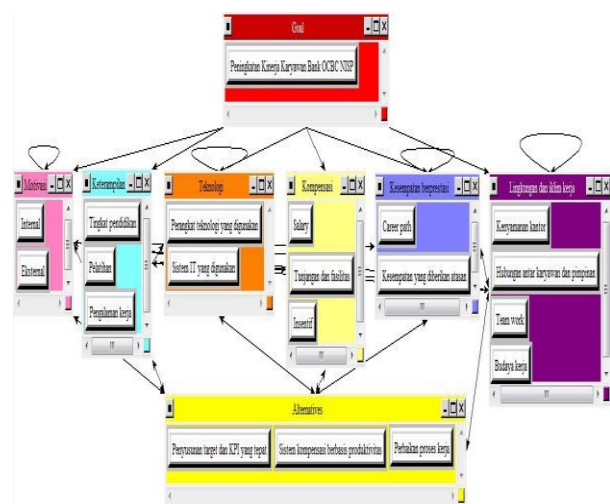
Sub-criteria for performance improvement analyzed using ANP is the performance improvement sub-criteria that has relevance to each other, so that the influence of each sub-criteria can be seen (Table 2). Determination of the relationship between sub-criteria and alternatives is done by distributing questionnaires to determine the relationship of each sub-criteria.

Table 2 Sub-criteria relationship matrix

Sub-criteria	Motivation	Skills	Technology	Compensation	Chance of Prestation	Environment & work Climate
	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16					
motivation	1					
	2					
Skills	3					
	4					
	5					
	6					
Technology	7					
	8					
Compensation	9					
	10					
Chance of Prestation	11					
	12					
	13					
Environment & work Climate	14					
	15					
	16					

Information: (1) internal; (2) eksternal; (3) level of education; (4) training; (5) work experience; (6) technological devices used; (7) the system used; (8) salary; (9) benefits and facilities; (10) incentive; (11) career path; (12) opportunity given by the boss; (13) office comfort; (14) relationship between employees and leaders;(15) team work; (16) work culture.

The ANP model was used to compile a questionnaire containing pairwise comparisons between sub-criteria and alternatives. After the two questionnaires were collected, several paired comparison data was coded into the super software decision.



ANP Model Figure enhances employee performance in the trade operations section of OCBC NISP Bank.

III. RESULTS AND DISCUSSION

Criteria Weight Analysis

Criteria weight analysis was conducted to determine which criteria had the most influence on improving the performance of employees in the trade operations section of OCBC NISP Bank.

Table 3 The priority weight of the performance improvement category

Criteria	Weight
Opportunity for achievement	0.06304
Skills	0.10426
Compensation	0.03998
Environment	0.03998
Motivation	0.25285
Teechnology	0.15816

Based on Table 3, it is concluded that the compensation criteria has the greatest weight 0.38172. This shows that the compensation criteria is the most influential aspect in improving the performance of the trade operations department at OCBC NISP Bank. According to the experts, compensation plays an important role in improving employee performance because employees work is to fulfill their daily needs. In spite of being a source of income for employees and their families, compensation is also a picture of employee social status. Compensation provided can determine whether the employee will remain or leave his place of work. Giving compensation is intended so that employees work optimally to produce optimal performance. The next rating is the motivation criteria of 0.25285, the technical criteria are 0.15816, the skills criteria are 0.10246, the opportunity criteria for achievement are 0.06304, and finally, the environmental criteria are 0.03998. The order of each criterion indicates the magnitude of the influence on the level of importance of increasing employee performance at OCBC NISP Bank's trade operations which is a sub-criteria in each of these criteria.

Analysis of Sub Criteria Weight

The sub-criteria weight analysis of the ANP model is divided into two parts, namely the weight analysis of all sub-criteria and sub-criteria weight analysis based on clusters. 1. Analysis of the Whole Weight of Sub Criteria

In this analysis, weights are based on limiting, not normalized. It is because of limiting is the final result of the overall comparison of performance improvements. Normalized is not the final result of performance improvement priorities, but rather an increase in the performance comparison of each subnet based on the number of criteria in the cluster (Aini [11]) The order of each criterion indicates the amount of influence on the level of importance in the cluster.

Table 4 The priority weight of all sub-criteria

Sub-criteria	Normalized by Cluster	Limiting
Internal	0.65660	0.156669
External	0.34340	0.081938
Salary	0.40433	0.063320
Incentive	0.39168	0.61338
IT system used	0.72484	0.61184
Career path	0.93826	0.038055
Benefits and facilities	0.20399	0.031945
Technology equipment is used	0.27516	0.023226
Training	0.53424	0.023077
Team work	0.40599	0.020436
Work experience	0.38078	0.016448
Work Culture	0.30435	0.015320
Office comfort	0.17330	0.008723
Employee and supervisor relationships	0.11636	0.005857
Level education	0.08498	0.003671
Opportunities from superiors	0.06174	0.002504

Table 4 above shows the ranks of the sixteen groups of sub-criteria. Based on the limiting, it can be seen that the biggest sub-criteria in the process of improving the performance of Bank OCBC NISP employees in issuing imported LCs are sub-criteria of the internal motivation of 0.156669 followed by sub external motivation criteria of 0.081938, then sub-criteria of salary and incentives of 0.063320 and 0.061338. The two sub-criteria are in the compensation cluster. Internal motivation is an impulse that comes from within the employees do the things they needed to achieve their goals. In this case it provides the best performance for the company. Internal motivation, including self-esteem, personal expectations, needs, job satisfaction, and others are factors that provide reasons for employees to perform optimally. With work performance that is good or exceeds the standards set by the company, the employees will be given an appreciation in the form of good compensation and maintain a presence in the company.

Analysis of Sub-Criteria Weight Based on Clusters Cluster motivation

Cluster motivation consists of sub-criteria of internal and external. Based on Table 5 below, internal motivation has a normalized value of 65.6% and is greater than external motivation which is equal to 34.3%.

Table 5 The priority weight of the motivation category

Sub-criteria	Normalized by Cluster	Limiting
Internal	0.65660	0.156669
External	0.34340	0.081938



Internal motivation is the motivation of employees in arising from themselves. Internal motivation is the strongest motivation because it cannot be influenced by external or environmental motivation. While external motivation is the motivation that arises from the outside and the environment. This motivation is not as strong as internal motivation because it must get encouragement from the outside.

*Cluster Skills*

Cluster skills consist of subcriteria for education, training, and work experience. Based on Table 6 below, training has the highest normalized value compared to other sub-criteria, which is 53.4%. While the second rank is work experience of 38.1% and the last level of education is 8.5%.

Table 6 The priority weight of the motivation category

Sub-criteria	Normalized by Cluster	Limiting
Level of education	0.08498	0.003671
Work experience	0.38078	0.016448
Training	0.53424	0.023077

According to Nigrum [12] training aims to increase the skills and abilities of employees so that they can improve the efficiency and effectiveness of employees assigned by the company. According to experts, training is one tool to adjust tasks and work with the abilities, skills, skills, and expertise of each employee. Training is an effort to improve employee performance by providing in-depth and thorough knowledge of the process of issuing imported LCs.

*Cluster Technology*

Cluster technology consists of sub-criteria for technological devices and IT systems used. Based on Table 7 below, the IT system used has a normalized value of 72.5%, which is greater than the technology used, which is 27.5%.

Table 7 The priority of the technology category

Sub-criteria	Normalized by Cluster	Limiting
Technology equipment used	0.27516	0.023226
IT system used	0.72484	0.61184

In the current era of globalization, information technology has become the first choice in creating an information system that is strong and capable of producing competitive advantages amid fierce competition. Information technology can meet the information needs of companies quickly, precisely, relevant and accurate. With the right information technology support, the issues of imported LCs can be completed more quickly. A good IT system produces

relevant and accurate output, especially in terms of data processing and processing related to organizational activities. According to Darmini and Purta [13], IT utilization is a supporting / driving tool for organizations to achieve company goals. IT utilization can be done effectively if employees in the company can use the technology properly. In the end, good IT utilization can improve individual employee performance.

*Cluster Compensation*

Cluster compensation consists of sub-criteria salary, allowances, and facilities, as well as incentives. Based on Table 8 below, the salary has the highest normalized value compared to other sub-criteria which are 40.4%. While the second rank is an incentive of 39.2% and the last allowance and facilities is 20.4%.

Table 8 The priority weight of the Compensation category

Sub-criteria	Normalized by Cluster	Limiting
Salary	0.40433	0.063320
Incentive	0.39168	0.61338
Benefits and facilities	0.20399	0.031945

Salary and incentives can be used as a tool to motivate employees in order to improve their performance and stimulate employees to play an active role in achieving company goals. Salary and incentives are rewards for employee performance so that the higher the employee's performance, the greater the salary and incentives that will be received. This achievement is usually expressed as performance and productivity.

*Cluster of Achievement Opportunities*

The opportunity clusters of achievement consist of career path sub-criteria and opportunities given by superiors. Based on Table 9 below the career path has a normalized value of 93.8%, greater than the opportunity given by the boss which is 6.2%.

Table 9 Priority for opportunity categories of achievement

Sub-criteria	Normalized by Cluster	Limiting
Career path	0.93826	0.038055
Opportunities from superiors	0.06174	0.002504

According to experts, career path influences employee performance where career development is a formal approach that is carried out by the company to ensure that the people in the company have the qualifications and abilities and suitable experience

when needed. Therefore, companies need to manage their career path and develop it well so that employee performance is maintained and encourages employees to always do their best and avoid work frustration which results in a decrease in the performance of employees and companies.

Cluster Environment and work Climate Clusters of environment and work climate consist of sub criteria for office comfort, relationships between employees and leaders, team work, and work culture. Based on Table 10 below, team work has the highest normalized value compared to other sub-criteria, which is 40.6%. While the second order is a work culture of 30.4%, followed by office comfort of 17.3% and the last relationship between employees and leaders is 11.7%.

Table 10 The priority weight of the environmental and Work climate categories

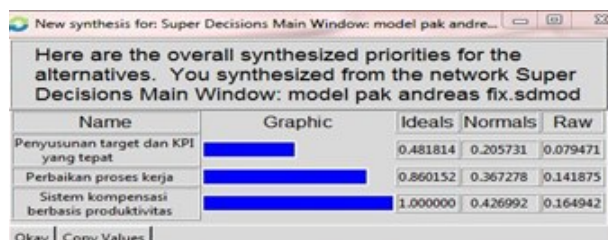
Sub-criteria	Normalized by Cluster	Limiting
Work Culture	0.30435	0.015320
Office comfort	0.17330	0.008723
Employee and supervisor relationships	0.11636	0.005857
Team work	0.40599	0.020436

According to experts, good teamwork can reduce unhealthy competition and concentrate on different skills to deal with problems or challenges quickly. According to Marpaung [14], employees who are able to work in a teamwork with certain abilities, talents, experiences, and backgrounds can work more effectively in achieving company goals.

**Analysis of Policy Selection for Employee Performance Improvement at OCBC NISP Bank's Trade Division with a Profit Sharing Productivity Approach**

Determination of policy priorities for improving employee performance at Bank OCBC NISP's trade operations is carried out using the standard formula. Table 11 below shows the ranking of alternative policies to improve Bank OCBC NISP employee performance.

Table 11. Ranking of alternatives for improving the performance of OCBC NISP bank employees



As explained above, the rationale for using ANP is that decision making or policies to improve

employee performance in issuing imported LCs are not only based on one factor/criterion. It can be obtained different conclusion When viewed from each criterion. Considering the criteria, the conclusions are relatively the same, namely the policies that determine the highest utilization compared to the uselessness.

The table above shows that the application of a productivity-based compensation system is a top priority with a priority weight of 42.69%. While the improvement of work processes is the second priority with a priority weight of 36.72%. The last priority sequence is the preparation of the right target and KPI with a priority weight of 20.57%. Based on the results of ANP analysis, the application of a productivity-based compensation system provides the highest benefits and opportunities compared to the risks that may arise.

Productivity-based compensation motivates employees to compete increasing their productivity in order to get better compensation than employees with lower productivity. Employees will not take into account how much effort and energy they spend compared to other employees and this system will motivate other employees because they need better compensation to meet their own needs and their families.

**IV. CONCLUSION**

Based on the research, the results of using ANP analysis shows that the application of a productivity-based compensation system is a top priority. Meanwhile, the improving work processes are the second priority. For the order of the last priority is the preparation of targets and the right KPI. Based on the results of ANP analysis, the application of a productivity-based compensation system provides the highest benefits and opportunities compared to the risks that may arise. Compensation is the main stimulus for employees to provide optimal performance to the company.

**Managerial Implications**

The application of profit sharing productivity will increase employees attachment to the company and motivate them to contribute and maximize performance for achieving company goals. The performance improvement followed by the division of productivity for the results in the form of incentives is the solution recommended in this study. The desire to improve performance encourages employees always to try to increase their knowledge and abilities and use their creativity in finding more effective ways to complete their tasks. Improving employee performance carried out by improving operational processes and policies in terms of human resources makes the company able to anticipate rapid business development well. The company can provide and improve service

excellence to customers and maintain a service level agreement agreed with the business. To be able to calculate employee performance quickly and precisely an information technology system is needed that is integrated with the banking system. Employee activities carried out in the banking system must be able to retrieve data easily and quickly and be processed to obtain accurate employee performance data, so that calculation of incentives can be done transparently. To apply the results of this study needed support and commitment from management in preparing the facilities and pre-facilities needed as well as the incentive calculation scheme applied.

### Suggestions

The suggestions are that the provision of incentives for operational employees can be considered if the employees or work units in question contribute beyond the target set by management. Providing incentives is intended so that employees can maintain, even improve their performance and provide encouragement for other employees to compete to improve their performance. Improving employee performance will provide a large contribution to improving the overall performance of the company and help the company to achieve its goals.

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