

## ANALYTICAL HIERARCHY PROCESS (AHP) APPROACH ON CONSUMER DECISION MAKING IN SELECTING BANK IN TERMS OF BANK SELECTION CRITERIA

by:

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### ABSTRACT

The Existence of bank is increasing steadily and rapidly since its inception in financial business industry, and has big influence direct to the public. For bank institution, customer is crucial consideration that bank must pay attention carefully. In order to keep existing customers and for attracting new customers, every banks needs to identify the criteria on which customers determine their bank selection decision because in world today especially in Manado customer faces a lots of choice in selecting which bank they want to patronize. Hence, the purpose of this study is to examine the significance of bank selection criteria, and how customers rank the factors based on their importance level to patronize banks and banking services. In this research used Analytical Hierarchy Process (AHP) in processing the data. The population in this research is those who have been customers of the banks PT. Bank Mandiri (Persero) Tbk, PT. BRI (Persero) Tbk, PT. BNI (Persero) Tbk, with purposive sampling to 50 respondents. As the finding, PT. Bank Mandiri becomes the most preferred bank compare to the other two in selecting the best bank. In result of overall criteria, the result shows there are three of seven criteria that have the highest scores, which are bank's reputation, convenient location by bank, and high interest rate. Moreover, bank's reputation factor becomes the priority criteria to be considered by customer in process decision- making the best bank. Finally, every company in Manado must give more attention to bank selection especially bank's reputation, convenient location, and high interest rate as the most influence criteria when people decide to patronize a bank.

**Keywords:** *consumer decision making, bank selection.*

### INTRODUCTION

#### Research Background

The growth of bank is steadily and rapidly since its inception in financial business industry, and has big influence direct to the public. The main function of bank is to collect total amount of funds from society as their customers or depositors and henceforward they operate the funds as an offer for those who need loans. Customer is crucial consideration for bank institution that must pay attention carefully because one of key for bank around the world whether going to be succeed or not is depends on customers. Thus, it is very important for banks to be able to recognize the factors and criteria influence people which bank they want to patronize.

Bank also plays important role for people in helping them to save their money and that is the crucial part for bank to be able in keeping customer's trust to save their money in the bank and make them feel comfortable to patronize the bank. However, nowadays there are lots of banks which perform their activities differently to the customers, and the level of their service or performance are various. Some of them perform with lower quality of performance and others could function with superior quality of performance. In around the world today, especially in Manado customer face a lots of choice in selecting a bank, some choices almost offer the same and abundant criteria of bank selection. Including of Banks in Manado, which consists of several Banks. Each Banks perform and offers differently criteria in terms of service performance. Therefore, this research identify the criteria that have influence and affect customer in choosing a bank base on Bank Selection Criteria.

## **Research Objectives**

The objectives of this research are To analyze bank selection criteria influence customers to patronize a bank, identifying which criteria has influence the most in selecting a bank, and which bank people want patronize the most base on bank selection.

## **THEORETICAL FRAMEWORK**

### **Marketing**

Burns and Bush (2006:4) defined marketing as an organization function, not a group of persons or separate entity within the firm. Kotler and Keller (2009:4) stated that Marketing means managing markets to bring about exchanges for the purpose of satisfying human needs and wants. In addition, Kotler and Keller (2009:45) also defined Marketing is about identifying and meeting human and social needs.

### **Consumer Behavior**

Consumer behavior is a process that not only happens when consumer gives over money to seller and in turn get good or service, but also the process that includes the issues that influence the consume before, during, and after a purchase. Consumer behavior also involves consumers as actors with different roles. Consumer is a person who identifies a need, makes a purchase, and then disposes of the product during the three stages n the consumption process, which are pre- purchase issues, purchase issues, and post-purchase issues. Consumer may act as influencer who provides recommendations about certain products without actually buying or using, or act as purchaser and also the user (Solomon 2011:34).

### **Consumer Decision Making**

Schiffman and Kanuk (2007:3) defined consumer decision making is the process of making purchase decisions based on cognitive and emotional influences such as impluse, family, friends, advertisers, role models, moods, and situations that influence a purchase.

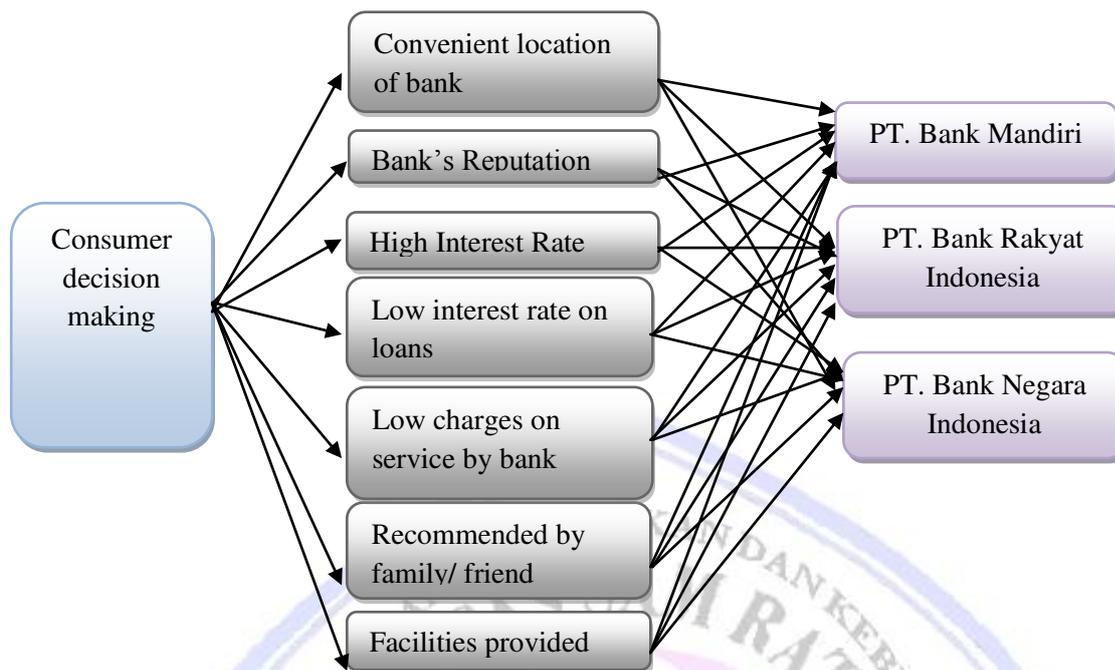
### **Multi-Criteria Decision Making**

Most decision making involves complicated procedures in which decision makers rank the alternatives of a choice according to multiple criteria. There have been many studies that have provided solutions for complicated decision making including multiple criteria. MCDM consists of three components: goal, criteria and alternatives. In making a decision, ranked alternatives are generated by evaluating criteria or subcriteria if there are any. Alternatives will be ranked regarding to the weights of criteria and subcriteria. The rank order can be applied for selecting the best alternative. (Saaty, 2008)

### **Bank Selection Criteria**

Bank selection criteria is crucial for all banks because they want to satisfy their customer by providing all those services which they expect from a bank. The issue of "how customers select banks" has been given considerable attention by researchers like Anderson et al. 1976; Evans 1979; Hegazi 1995; Metawa and Almassawi (1998). Customers are selecting banks considering various features of the service proposition. Thus, to attract customers, banks are facing challenges more than ever. However, to attract customers it is crucial to know what selection criteria customers are adopting in selecting banks. In addition Blankson et al. (2009) identified four key factors - convenience, competence, recommendation by parents, and free banking and/or no bank charges.

## Conceptual Framework



**Figure 1: Conceptual Framework**

*Source: Data Processed, 2014*

## RESEARCH METHOD

### Type of Research

This research is quantitative research. Type of research is an Exploratory research to analyze the influence of bank selection criteria particularly in Manado to consumer decision making in selecting which bank people want to patronize.

### Place and Time of Reseach

The research was conducted in Manado particularly at bank area which is PT. Bank Mandiri, PT. Bank Rakyat Indonesia, PT. Bank Negara Indonesia, because it is the best place for researcher to make observation and answer the research problem. This research use customers of three of them as the respondents, and will be held from June- July 2014.

### Population and Sample

Sekaran and Bouggie (2010:262) defined population is the entire group of people, events, of things of interest that the researcher wishes to investigate. The population that is mainly observed in this current research is all consumers from three alternatives (PT. Bank Mandiri, PT. BRI, PT. BNI). The sampling design is Purposive sampling to 50 respondents that is the way researcher do the observation and the way of getting the information in effective and efficient way.

### Data Collection

This research the source of data consists of primary and secondary data. Primary data has been obtained by spreading questioners to the respondents and the secondary data has been collected from books and all relevant articles from the library and Internet.

## Operational Definition and Measurement of Research Variables

This research defines the variables into:

1. Consumer decision-making (Y) defined as a process of gathering and processing information, evaluating it and selecting the best possible option to make a buying choice or to make decisions regarding product and service offerings.
2. Bank selection Criteria (X) means factors of bank that influencing people or reason why people want to patronize a bank.
3. Alternative: PT. Bank mandiri (Persero) Tbk, PT. bank rakyat Indonesia (Persero) Tbk, PT. bank Negara Indonesia (Persero) Tbk.

## Data Analysis Method

### Analytic Hierarchy Process

The Analytic Hierarchy Process (AHP) is a mathematical technique for multi-criteria decision making. Saaty (2008: 117). It enables people to make decisions involving many kinds of concerns including planning, setting priorities, selecting the best among a number of alternatives, and allocating resources. The Analytic Hierarchy Process (AHP) is a powerful and flexible decision making process to help people set priorities and make the best decision when both qualitative and quantitative aspects of a decision need to be considered. By reducing complex decisions to a series of one-on-one comparisons, then synthesizing the results, AHP not only helps decision makers arrive at the best decision, but also provides a clear rationale that it is the best. We conduct AHP in three steps:

1. Perform pairwise comparisons
2. Compute the relative weights
3. Assess consistency of pairwise judgments

## Operational Definition and Measurement of Research

**Table 1 Pair-wise Scale**

Preference Level	Numerical Value
Equally preferred	1
Equally to moderately preferred	2
Moderately referred	3
Moderately to strongly preferred	4
Strongly preferred	5
Strongly to very strongly preferred	6
Very strongly preferred	7
Very strongly to extremely preferred	8
Extremely preferred	9

Source: Processed Data, 2014

1. Synthesization  
The next step in AHP is to prioritize the decision alternatives within each criterion. Steps in synthesization are:
  - a. Sum the values in each column of the pairwise comparison matrices.
  - b. Divide each value in each column of the pairwise comparison matrices by the corresponding column sum-these are normalized matrices.
  - c. Average the values in each row of the normalized matrices-these are the preference vectors
  - d. Combine the vectors of preference for each criterion into one preference matrix that show the preference for each criterion
2. Develop a pairwise comparison matrix for the criteria.

3. Compute the normalized matrix by dividing each value in each column of the matrix by the corresponding column sum.
4. Develop the preference vector by computing the row averages for the normalized matrix.
5. Compute an overall score for each decision alternative by multiplying the criteria preference vector by the criteria matrix.
6. Rank the decision alternatives, based on the magnitude of their scores computed in step 6.

## RESULT AND DISCUSSION

### Result

#### Result of the overall criteria of bank selection criteria

Bank's Reputation	Facilities Provided	High Interest rate	Recommended by family/friend	Low charges services	Low Interest on loans	Convenient location
0.3272	0.0559	0.1385	0.1123	0.0442	0.0923	0.2295

In this result shows the highest score is dominated by Bank's reputation (0.3272) measured as the factor that have influence the most people patronize a bank among the others criteria. The second is convenient location as many as (0.2295), and the high interest rate is in third position with score (0.1385), followed by recommendation of family or friend (0.1123). and the rest filled by low interest rate (0.0923), facilities provided (0.0559), and low charges services by banks as the lowest score (0.0442). As the overall inconsistency = (0.0938), it mean the data comparison in this result is valid and consistent.

#### Result of Analytical Hierarchy Process of consumer decision making in selecting bank in terms of bank selection criteria

PT. Bank Mandiri (Persero) Tbk	PT. BRI (Persero) Tbk	PT. BNI (Persero) Tbk
0.491214	0.301149	0.207581

This research shows that when people make decision in selecting a bank that they want to patronize or save their money in terms of bank selection criteria, they prefer to choose PT. Bank Mandiri as the most preferred bank among the other alternatives. PT. Bank Mandiri being the highest score as many as (0.491), and in the second highest position is dominated by PT. BRI ( Bank Rakyat Indonesia) with total score (0.301), and followed by PT. BNI ( Bank Rakyat Indonesia) in the last position with total score (0.208). in this result the overall inconsistency indicated = (0.08), it shows that the comparison of data in this research is valid and consistent.

### Discussion

#### Pairwise Comparison for the Main Criteria Analysis

In Analytical Hierarchy Process (AHP), the criterion developed as the measurement of best bank selection has been compared. AHP determines the relative importance or weight of the criteria, to rank the criteria from most important to least important. A criterion with the highest average weight indicates the priority criteria among others. Firstly, for the overall of main criteria (convenient location by bank, bank's reputation, high interest rate, low interest rate on loans, low charges on service by bank, recommended by family and friend, and facilities provided), base on the result the most important criteria to pay attention by banks is Bank's Reputation. Bank reputation identified as the highest criteria compare to the other six and being the most preferred criteria by respondents and the most crucial criteria for customer in selecting which bank they want to

patronize. The respondent should those who already experienced on each alternative provided which are the three banks base on the requirement of using AHP method. So according to levels of consumer decision-making (Schiffman and Kanuk, (2007:508) the respondent can be concluded in "Routinized response behavior". In this level, consumers have experience with the product/service category and a well-established set of criteria with which to evaluate the brands they are considering. So in this research, according to the respondent, Bank's Reputation of bank itself become the highest factor for the consumer decision-making in selecting the best bank particularly in Manado in bank selection criteria.

Second Place is convenient location by bank as the second highest score in main criteria of bank selection. Convenient location it means choosing a bank close to home or work place in order to minimize time going to a bank. Customer in process decision- making in selecting bank, they will prefers considered about the location of its bank to avoid in wasting time of going to a bank. For customer, location of bank is near to home or work place will make them easily to make any activities related to transaction with banks. Therefore, that is why in the result, respondents the most second preferred convenient location by bank.

Third position, followed by high interest rate. People do saving or deposit their money in a bank, one of things they want to recognize about the interest rate on saving and deposit. Most of customer want to plant their money in the bank that can offer interest rate as high rate as possible, because the more interest rate of saving, the more profit will earn. Thus, interest rate can affect people when they do decision in choosing a bank to patronize. Therefore, the result of pairwise comparison of this study state the high interest rate is top three criteria that have influence in bank selection and being the third highest score compare to the other rest.

Next Position dominated by recommended by family/friend. Family and friends plays important part for someone to make decision. In this case, family and friends could give suggestion as an alternative option and choice for someone to make their decision in selecting which bank they want to choose. In this result, customer (respondents) ranks the criteria of recommended by family/ friend as the fourth highest score of seven criteria in bank selection base on pairwise comparison.

Fifth place is low interest rate on loans. Customer in process decision- making in choosing a bank, beside people expecting high interest rate on saving and deposit, they expecting a bank that can offer interest rate on loans as low interest as possible. Low interest rate on loans is one of thing that customer prefers consider, because world today many of people do loans in bank with variety of purpose. That is why in this result of pairwise comparison, respondent rank the low interest rate on loans in the fifth position of seven criteria, and also being the one of factor influence in process decision making in patronizing a bank.

The second last is facilities provided. Facilities provided in this case, it means physical facilities, equipment, and appearance that can be seen by customers inside a bank such as availability of TV wall, electric doors, technological tools. For customers, the facilities itself can make them comfortable while doing activities with bank and could be one of thing that attract their consideration in selecting a bank. The last place is low charges on services by bank. Generally, customers seek a bank that can offer their service in low charge not in expensive one. The result of pairwise comparison shows the total score of low charger on services criteria is as the lower score compare to the other six. But it does not mean this criteria not important. This criteria still important to the customer in selecting the best banks in terms of bank selection but its in the least important criteria resulted from the correspondent.

### **Result of Analytical Hierarchy Process of consumer decision making in selecting bank in terms of bank selection criteria.**

The overall result of customer in making-decision to select the best banks in terms of Bank selection criteria, they will choose PT. Bank Mandiri as the best hospitals in Manado compares to the rest alternatives. This result shows that when people make decision in selecting a bank that they want to patronize or save their money in terms of bank selection criteria, they prefer to choose PT. Bank Mandiri as the most preferred bank among the other alternatives. PT. Bank Mandiri being the highest score, and in the second highest position is dominated by PT. BRI ( Bank Rakyat Indonesia), and followed by PT. BNI ( Bank Rakyat Indonesia) in the last

position. In this result the overall inconsistency indicated less than ten percent, it shows that the comparison of data in this research is valid and consistent.

## CONCLUSION AND RECOMMENDATION

### Conclusion

The result of this research shows the conclusion stated below, which are;

1. Bank selection criteria that contains of seven criteria (convenient location by bank, bank's reputation, high interest rate, low interest on loans, low charges on services by banks, recommended by family / friends, and the last facilities provided), there are top three criteria in process decision- making that have the most influence in selecting bank particularly in Manado. It means bank selection criteria influence and affect people when they make decision in selecting a bank particularly in Manado.
2. Analytical Hierarchy Process (AHP) shows t the first and the highest total score goes to Bank's Reputation. Bank's Reputation being the most preferred by respondents base on the data comparison developed in pairwise comparison of analytical hierarchy process (AHP). The second position of the highest scored is placed by Convenient Location, and followed by High interest rate criteria.
3. The overall result in Analytical Hierarchy Process, the finding shows PT. Bank Mandiri become the Best Bank in terms of Bank selection criteria choosing by the customers followed by PT. BRI and PT. BNI.

### Recommendation

There are three-recommendation base on the conclusion above, which are:

1. Bank's Reputation plays important roles in process decision- making of selecting a bank. Bank's Reputation becomes a priority consideration by the respondents that influence their decision-making in terms of bank selection. Therefore, every bank particularly in Manado has to pay attention seriously toward this factor. For customers, they absolutely would not patronize a bank that has bad reputation or uncertain background. Moreover, for banks, Goodwill or reputation of a bank is crucial part for bank to keeping customer's trust for saving their money in a bank. Regarding above, these firms of bank need to improve and keep their overall performance related to bank selection criteria, in order to more consider how to build and protect their competitive position in the market.
2. PT. Bank Mandiri's competitors in service business market of bank firms like PT. BRI and PT. BNI have to improve their performance and should more focus in terms of bank selection criteria since PT. Bank Mandiri dominates the best performance in almost all priority criteria that make this firm able to attract more consumers.
3. Customers in Manado when they want to make decision to select the best bank that they want to patronize in term of bank selection criteria, they will put more attention in three criteria that have the most influence, which are Bank's reputation, convenient location, and high interest rate. Those are what they expect as a customer.

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