

## Cost-Benefit Analysis for Marketers Training Project: Case Study of Bank Capital Power, Bandung Branch

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**ABSTRACT:** The main role of a bank in economy of a country is becoming financial intermediary to collect money from depositories consisted of CASA & Deposit then give loans to debtors. Thus, CASA is essential for the banking sector to be channeled as loans. Bank Capital Power (not the actual name), experienced a decrease in CASA in 2021 due to the CASA was leaked to other banks for investment purpose. The management of BCP implemented Investment Training Project in Bandung Branch to train marketers in order to enhance the marketers' capabilities. The purpose of the study is to evaluate the implementation of the project and advise Bank Capital Power on the project continuation. The data is a primary data collected from Bank Capital Power period October 2021 until December 2022. This study employed three methods to evaluate the Project namely CBA (Cost-Benefit Analysis) and Difference Tests of Profit Generated using Kruskal-Wallis and Mann-Whitney U Test to see if the training profit result is statistically different. Result for the Cost-Benefit Ratio is 2.18597, indicating that the project generated positive result. In addition, Kruskal-Wallis and Mann Whitney Test result show that the project produced significant statistically different profit compared to the previous period.

**KEYWORDS:** Analysis, Cost-Benefit, Kruskal-Wallis, Mann Whitney U Test, Marketers Training

### 1. INTRODUCTION

Saeed & Gull (2013) argued that banks are important because they are the primary source of funds for the government, industrial sector, as well as society to fulfill their funding needs. The findings from Wahyudi et al. (2021), Sari et al. (2022), and Astiwi & Wibowo (2016) confirmed that the banking industry in Indonesia is highly competitive and the competition is expected to continue in upcoming years. Indonesia banks competition is not merely a price competition, but also resemble a non-price competition. Banks in Indonesia should not only focus on becoming a cost leadership, but they have to consider to improve their services that suited the customers' needs (Wahyudi et al., 2021).

Bank Capital Power (not the actual name), one of the banks in Indonesia, experienced a decrease of growth in CASA & Bandung Branch experienced the same thing (see figure 1).

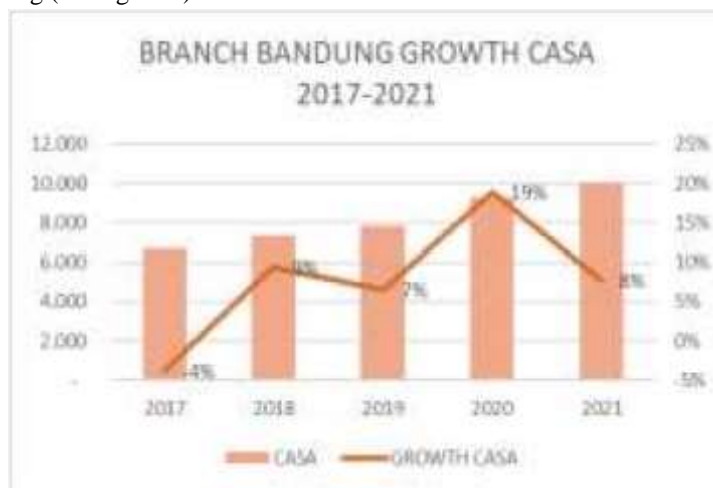


Figure 1. Growth CASA of Bandung Branch (BCP Internal Data)



Data gathered by BCP Machine Learning shows that a numerous amount of CASA of Bandung Branch's HNWI's was leaked out to Investment Bank. Many High New Worth Customers preferred to have their investment portfolios managed by other banks. Supported by claims from several priority customers through interviews that said they did not really believe of capabilities of their Marketers to manage their wealth (BCP Internal Survey, 2021). Bank Capital Power had not yet perceived as trusted wealth advisor since the marketers rarely offer them investment solutions. Therefore, the Headquarter implemented a Investment Training Project in Bandung Branch started on early 2022. The project main activity is to train marketers to be a trusted advisor.

## 2. LITERATURE REVIEW

The literature review covers the findings provided from the prior study to enrich the content of this research as follows:

### a. Cost-Benefit Analysis

Research conducted by Gillen et al. (2020), mentioned the Cost-Benefit Analysis is a relatively straightforward measurement through quantification and monetization of benefits and costs. Cost-benefit analysis (CBA) is a method to assess the costs and advantages of a particular choice or a strategy proposed by the company. The project should be continued if the calculation of Cost-Benefit Analysis ratio  $> 1$ , otherwise, the project should be discontinued.

### b. Kruskal-Wallis Test

The Kruskal-Wallis test is a very popular non parametric statistical test that is useful to compare more than two independent samples which is not normally distributed (Ostertagová, Ostertag, Oskar, & Kováč, 2014). The test is often used on small sized data (Guo et al., 2013). The p-value produced by the Kruskal-Wallis test is used to determine whether there is a significant difference between the groups. **c. Mann Whitney U Test**

The Mann-Whitney U-Test, also known as the Wilcoxon Rank-Sum Test, is a non-parametric statistical test used to compare two independent samples (Perez et al., 2014; Cheng, Jua, & Chu et al., 2020; Rouncefield, 1998). The Mann-Whitney U-Test is can be useful tool for providing insights into the differences between two groups and check the difference statistically among two groups.

## 3. METHODOLOGY

This study will employ quantitative method to evaluate the performance after the implementation of Investment Training Project in Bandung Branch. The data used in this research is primary data obtained by collecting data from Bank Capital Power, Branch Bandung internal data before, during, and after implementation phase of Investment Training Project. There are several methods used to analyze the data, namely Cost-Benefit Analysis and Difference Tests of Profit Generated consisted of Kruskal-Wallis Test and Mann-Whitney U-Test

## 4. DATA ANALYSIS

This research employs calculation Cost Benefit Ratio and Difference Tests of Profit Generated.

### a. Cost-Benefit Analysis

Cost-Benefit Analysis not only calculate the explicit costs and benefits, but also the implicit costs and benefits. The explicit costs are certification cost, vendor fee, implementation-assistance cost, and labor cost which amounting to Rp1.699.300.000,00. The implicit cost of this project is the opportunity cost of profit that could have been generated while the 10 marketers were trained in the first month of implementation which is Rp334.819.542,00. Therefore the total cost is Rp2.034.119.542,00.

The gain (explicit benefit) from investment is the profit gained during and after the training implemented which is Rp4.110.065.943. As for the implicit benefit for the project, it is the CASA that returned to Bank Capital Power, Bandung Branch, after it left the bank to be invested in other banks. From the CASA returned, BCP gained profit amounting to Rp4.446.527.560,76. Thus, the total benefit of the project is Rp4.446.527.560,76. The Investment Training Project in Bandung Branch, Bank Capital Power, Cost-Benefit Ratio is:

$$\text{Cost-Benefit Ratio} = (\text{Total Benefits})/(\text{Total Costs})$$

$$\text{Cost-Benefit Ratio} = \text{Rp}4.446.527.760,76/\text{Rp}2.034.119.542,00$$

$$\text{Cost-Benefit Ratio} = 2.18597$$



The result shows that the BC-Ratio is 2.18597, it means that the benefits of implementing the project have exceeded the costs invested.

**b. Kruskal-Wallis Test Result**

The Hypothesis for the Kruskal-Wallis Test are:

$H_0$  = There is no significant median difference between Before, Implementation, and After phase  $H_1$  = There is a significant median difference between Before, Implementation, and After phase.

**Table 1.** Kruskal-Wallis Test Result

```
. kwallis profit, by(phases)
Kruskal-Wallis equality-of-populations rank test
```

phases	Obs	Rank Sum
AFTER	10	203.00
BEFORE	10	100.00
IMPLEMENTATION	10	162.00

```
chi-squared = 6.939 with 2 d.f.
probability = 0.0311

chi-squared with ties = 6.939 with 2 d.f.
probability = 0.0311
```

(Source: Data Processed by Stata)

According to the table 1, the probability of the Kruskal-Wallis test is 0.0311\* which means the result is significant at confidence level of 95%, then  $H_0$  is rejected. Therefore, based on the test, there is significant differences between before-implementation phase, implementation phase, and after-implementation phase. In conclusion, the Kruskal-Wallis shows that the three phases are statistically different.

**c. Mann-Whitney U Test Result**

The Kruskal-Wallis test showed that the three groups are statistically different, though it does not differentiate one group and another, hence Mann-Whitney U Test is conducted.

**Table 2.** The Summary of Mann-Whitney U Test

PHASE	P-VALUE	CONFIDENCE LEVEL	RESULT
Before vs During	0.0821	90%	There is difference
During vs Before	0.2265	75%	There is no difference
Before vs After	0.0156*	95%	There is difference

The comparison between before implementation phase with the implementation phase p value is 0.0821, since the p-value is lower than 0.1, it means that the result is significant at confidence level 90%. While comparing the before implementation with during implementation, the p-value is 0.2265, which means the p-value > 0.1, it means that there is no significant statistical difference. For the third comparison, the p-value is 0.0156\*, it means that the result is significant at confidence level of 95% for the comparison before implementation with after implementation phase. In conclusion, the statistical difference lies between before and during



implementation phase, also before and after implementation phase. This happened due to the monitoring process that is strictly done by the implementation task forces.

## 5. CONCLUSIONS

Cost-Benefit Ratio is calculated by dividing the total benefits to the total costs. The Cost-Benefit Ratio of the Project is 2.18597, which is  $> 1$ , it means that the benefits of implementing Investment Training Project have exceeded the costs invested.

After conducting the difference test using Kruskal-Wallis and Mann-Whitney U-Test, it is found that the profit in before-implementation and after-implementation phase of the project are different. To support that, the KruskalWallis test shows that there is significant difference on profit between the three phases, yet the Mann-Whitney tests result have shown there is a statistical difference when comparing before and during implementation and before and after implementation, while there no significant difference when comparing the during implementation and after implementation phase.

## 6. RECOMMENDATION

### a. Recommendation for the Company

Based on the findings, the research suggested that Bank Capital Power keep continuing the project to address the CASA leaked in its branches as the Bandung Branch have shown that the project gave positive impact to the office. Knowing that there are opportunities lying ahead in other branches of Bank Capital Power and that the Investment Training Project generated positive result for the company, the Bank Capital Power should continue to implement the project in other branches. However, the task force should design more personalized trainings as the marketers have different skill and needs. In addition, it is important to analyze the market condition while comparing the result of the project due to the market situation that is happening may influence the performances of investment products and eventually the employee's achievement.

### b. Recommendation for Future Research

The future research that aims to evaluate a training project could employ more improvement as follows:

1. Quantify other benefit such as customer satisfaction, or even customer engagement, to be included in the calculation.
2. Asses the long-term impact of the training by examining the skills acquired by the trainee over an extended period.

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