



# A STUDY ON SUPPLIER SELECTION AT A MANUFACTURING COMPANY

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## ABSTRACT

Supplier selection is a significant decisions for a manufacturer to ensure stable material flows in a highly competitive supply chain, in particular when customers are willing to accept products with less desirable product attributes (Borges de Araújo, Hazin Alencar, & Coelho Viana, 2015). The supplier selection is a complex decision involving various criteria such as procurement cost, product quality and delivery performance. This research is about the effect of wrong supplier selection.

## PROBLEM STATEMENT

Every enterprise need supplier to ensure smooth running of its activities (Li & Zabinsky, 2011). From a researcher observation at a manufacturing company in Temerloh, Pahang, it is found that the manufacturing company have many problem when they are face the wrong supplier selection. The supplier selection problem occurs when the company failed to choose the good supplier. There are also operation and production problem faced by the manufacturing company. It is because the company failed to select the good supplier which supply the low quality of raw materials supplies.

## INTRODUCTION

- The supplier selection is one of the most critical activities of accompany in today's increasing competitive business world.
- It is prohibitively difficult to determine the set of suppliers, allocation among suppliers and the aggregate order at the exact probability (Pateriya & Verma, 2013).

## OBJECTIVES

- To identify the issues of poor supplier selection
- To propose a suitable method that can be implement to overcome the supplier selection problem

## METHODOLOGY

### Research Question

- RQ1:** What are the issues of poor supplier selection in the manufacturing company?  
**RQ2:** What is the suitable method to improve the supplier selection at manufacturing company?

### Research Design

- Case study approach
- Qualitative method (interview and observation)

### Sampling

- Purposive and snowball sampling
- 7 person
  - Top management
  - Procurement Management

### Data analysis

- Interview
  - use coding technique
  - transfer audio into transcript
  - categorize each information into suitable themes
- Observation
  - data recorded: written notes and photos

## RESULT

### Themes

Types of problem	Explanation
Non-quality raw material	5 out of 7 interviewee talk about the non-quality raw material that has been sent by the supplier.
Excessive raw material	71.43% of the interviewee said that the supplier sent the raw materials more than ordered.
Low specification of raw materials.	Most of the interviewee talk about the low raw materials specification.
Unstable price	3 out of 7 interviewee said that the raw materials price was not the same for every purchase.
Late delivery time	28.57% talks about the lateness of delivery.

"low quality raw material make our product in a less quality"

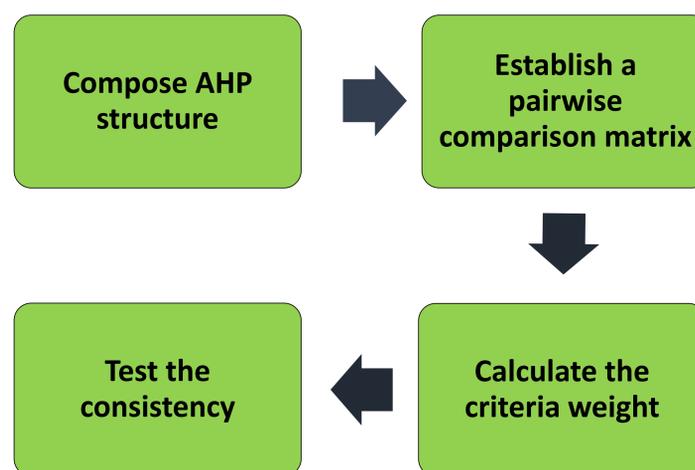
"we order 100kg but 110kg were delivered"

"the size and weight of every pieces are different"

"the price of raw material are different for every purchasing"

"supplier come an hour late"

Table 4.1 Poor supplier selection issues



Propose the AHP method to the company

### RQ1: What are the issues of poor supplier selection in the manufacturing company?

- Non quality raw material, excessive raw material, low specification, unstable price and late delivery time

### RQ2: What is the suitable method to improve the supplier selection at manufacturing company?

- Analytical Hierarchy Process that structure the selection criteria into hierarch.

- ✓ helping firm to make decision between several objectives
- ✓ help and solving supplier selection problem by improve the decision making
- ✓ time taken to select the supplier has been reduced
- ✓ determine the alternative and performance evaluation by brainstorming
- ✓ using Fuzzy-AHP in individual performance of the alternatives
- ✓ integrate the individual evaluation majority role method
- ✓ increase Total Value Production (TVP) by introducing optimum order quantities between selected suppliers

## CONCLUSION AND RECOMMENDATION

The recommendation for future study is to expand the research scope. This study only focuses on the issue of poor supplier selection and the suitable method to overcome the problem. The future study can explore more on how the supplier selection give impact on the market availability of the firm. The future study also can focus on collecting the data from the company and analyze the data of supplier selection by using a decision making methods. The list of supplier should be weighted for every single criteria that they have. The highest weighted score are the best supplier that can be choose.