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APPLIED BUSINESS RESEARCH

**TITLE:
FACTORY LAYOUT AT WH FURNITURE & WORKS SDN. BHD: AN
APPLICATION OF FLOW DIAGRAM AND PROCESS CHART**

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**SUBMISSION DATE:
13TH MAY 2010**

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ABSTRACT

This paper examines layout design and process chart analysis in furniture manufacturing company. In particular, the study describes the existing layout design of WHFWSB and its performance measures, such as design capacity, factory efficiency, utilization, flow time and value-added activities. Factory layout design is known to have a significant impact upon manufacturing costs, work in process, leads time and productivity. In long term, a good placement of facilities contributes to the overall efficiency of operations and can reduce the total operating expenses. In addition, process chart provides detail analysis of the process involve and total cycle time that useful to identify problem particularly waste problem in the production process. Therefore identifying current layout design and process chart is useful for the companies in relation to improve overall factory efficiency.

CHAPTER 1

INTRODUCTION

1.0 INTRODUCTION

This chapter provides an introduction to the applied business project. It first illustrates on an overview of the background of study which explained in general the furniture industry in Malaysia. Then it covers the background of the company in brief and later specifies the problem statement which leads to the research objectives and questions, scope of study, significance of study and finally the limitation that we encountered when conducting this study. Lastly this chapter elaborated on the main definition of our study.

1.1 BACKGROUND OF STUDY

The efficiency of production depends on how well the various machines; production facilities and employee's amenities are located in a factory. Only the properly laid out factory can ensure the smooth and rapid movement of material, from the raw material stage to the end product stage. Factory layout encompasses new layout as well as relationship among the output, floor area and manufacturing process. (Hicks and Cowan, 1976)

An efficient factory layout is one that aims at achieving various objectives like efficient utilization of available floor space, minimizes cost, allows flexibility of operation, provides for employees convenience, improves productivity etc. The entrepreneurs must possess the expertise to lay down a proper layout for new or existing plants. It

CHAPTER 2 LITERATURE REVIEW

2.0 INTRODUCTION

This chapter shall discuss on layout strategy, process strategy, batch production and productivity.

2.1 LAYOUT STRATEGY

Hyer and Wemmerlov (2002) revealed that there are three basic issues that need to be considered in factory layout planning such as; space, relationships and constraints. In designing of a functional and sequential factory layout, the important information required such as sequences of machining and processes, size (especially the length) or work pieces, quantity of intermediate stocks, number and type of pallets etc. (Cinar, 1988)

Chase, Jacobs and Aquilano (2004) discovered layout decisions entail determining the placement of departments, work groups with the departments, workstations, machines and stock-holding points within a production facility. The objective is to arrange these elements in a way that ensures a smooth work flow (in a factory) or a particular traffic pattern (in a service organization). In general, the inputs to the layout decision are as follows:

- (a) Specification of the objectives and corresponding criteria to be used to evaluate the design, the amount of space required, and the distance that must be traveled between elements in the layout, are common basic criteria.