

# COMMUNICATION GAP ANALYSIS AT AEROSPACE MANUFACTURING COMPANY

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## ABSTRACT:

*The objective of this research is to investigate the communication gap at the Aerospace Manufacturing Company by using semi-structured interview and focus group discussion technique. A standard report is also produced to overcome this communication issues by having each person in each level to review and report their standard operation to their subordinates regularly based on the decided frequency.*

**KEYWORDS:** *gap analysis, aerospace industry, communication*

## INTRODUCTION

Globalisation has made businesses around the world more difficult and complicated than before. Every company is trying to search for a solution to remain successful and competitive, to survive in the industry. For manufacturing companies, it has become even more complicated.

To survive in this industry, companies are struggling to improve their streamline business processes, inventories, cycle times and factors related to cost. The latter involves reducing the manufacturing costs, strengthening relationships with the suppliers, offering variety of products and most importantly reducing the response time to meet their customers' needs and expectations. It has been estimated that almost 50% of manufacturing costs are attributed to purchase items, the raw material account for 80% of a finished product's lead time and 30% of its quality problems (Willis & Huston, 1990 and Doolean et.al, 2006). All of these are actually driven by the economic needs. Moreover, if a manufacturing company manages to overcome these problems, it will bring more customer demands.

However, many manufacturing companies nowadays are in a totally different situation due to the various problems they faced which includes excessive inventories, non-competitiveness, loosing the market share and unable to cater to the customers' needs on time. Therefore, many manufacturing companies try to search for a system that can make their process more effective. For over two decades there have been numerous manufacturing "revolutions", accompanied by clarion calls for universal adoption of some new paradigm such as Manufacturing Resources Planning (MRPII), Just in Time (JIT), Optimized Production Technology/Theory of Constraints (OPT/TOC), Flexible Manufacturing Systems (FMS), Total Quality Management (TQM), Lean Manufacturing, Agility, Time-Based Competition (TBC), Quick Response Manufacturing (QR/QRM) and Business Process Re-Engineering (BPR) (MacCarthy & Wilson, 2001). One of the alternatives that has been implemented by this aerospace manufacturing company is the implementation of Lean Manufacturing, which means waste elimination.

Nevertheless, the main issue that needs to be dealt with is the smooth communication with all levels in the organisation without none of the techniques above can be implemented successfully. Thus, the purpose of this study is to investigate the current communication gap in the implementation of lean at the aerospace manufacturing company by using semi-structured interview and focus group discussion. A standard report is also produced to overcome this communication issues by having each person in each level to review and report their standard operation to their subordinates regularly based on an agreed upon frequency.

### **Communication**

Communication is one of the important factors that need to be considered in order to improve performance in an organization or in an individual. It is critical not only in obtaining a job, but also in performing the job effectively. For example, in a study reported in Personnel by Gary L Benson (1994), a survey questionnaire was sent to each personnel manager of 175 of the largest companies in a western state. One of the key questions in the study concerned that skill factors are most important in helping graduating business students to obtain employment. Written and oral communication skills were identified as the two most important factors or skills in obtaining employment. Strong interpersonal and communication skills appear to be of primary importance in hiring decision (Kimberly, 1993).

*"Nearly two-third (of the recruiters surveyed) thought MBAs have satisfactory levels of skills and knowledge in their specialized areas. However, fully half thought MBAs were lacking to some degree in both interpersonal and written communications skills, the very skills reported to be the most important hiring criteria. One third reported that MBAs were lacking in some degree in oral communication skills." (Kimberly, 1993).*

Actually there are two main types of communication, firstly is the management communication that includes business plans, strategic documents, procedures and work instructions. The second category is the information dissemination which takes place internally and also externally such as press releases for public relations, news letters and wall display (Jay & Thad 1999).

## **RESEARCH METHODOLOGY**

This research was conducted through an interview technique with the top management (GM) and focus group discussions with approximately 20 shop floor leaders [Head of Department (HOD)/ Head of Section (HOS)/Engineer/Executive/ Team Leader]. These techniques have been used along with direct observation of the plant operation for collecting the earlier primary data (Gap analysis) to study and investigate the current communication gap at all levels in the company.

### **Semi-structured interview and Focus group discussions**

Interviews are perhaps the most frequently occurring form of communication apart from conversation and it does occur regularly in organisations (Sincoff & Goyer, 1984). However, sometimes people view interviews as simply conversations though it is different (Whetten & Cameron, 2002). An interview is a specialized form of

communication conducted for a specific task-related purpose (Lopez, 1975, and Down et.al, 1980). In this research, the researchers used semi-structured interviews technique in order to attain a non rigid and non formal technique so that it will be more staff-friendly. By doing this, staff co operation and interest can be achieved without much hassle.

The main reasons why the researchers used this technique is because it is a vital management skill (when done well, an interview can provide the researcher information which is not otherwise available). The information gathered from the interviews will influence the decisions made by the researcher (Whetten & Cameron, 2002).

As for methods of focus group discussion, it is defined as a panel of individuals (customers or non customers) who answer questions about a company's products and services as well as those of competitors (Evans & Lindsay, 1996). This methodological approach allows getting info for important issues such as in-depth experiences or expectations and it provides the collective insights of group dynamics while preserving individual preferences (Threlfall, 1999).

**Below is the definition that can be found in literature for Focus Group:**

*"Are qualitative techniques allowed for the explicit use of group interaction to produce data and insights that would be less accessible without the interaction found in a group" (Morgan, 1990).*

The main reasons why the researchers used this technique in the beginning of the research is that, similar to semi-structured interviews i.e. if conducted properly, this technique can provide meaningful experiences and ideas on this topics (Threlfall, 1999). In other words, it can be the direct voice of the customer.

Examples of other advantages to use focus group discussion are:

- i) The speed and flexibility to get an answer
- ii) Results are reported sooner
- iii) Costs are minimised.
- iv) Flexibility to explore beyond the boundaries of tightly worded questions
- v) Allows participants to focus over researchers' emphasis.

On the other hand, this technique also has its disadvantages especially if the researcher has no experience being a moderator and if he is unable to handle big groups of people simultaneously. To overcome these problems, focus group discussion is done with a smaller number of people (around 20 shop floor leaders).

## **FINDINGS AND DISCUSSIONS**

**Identify the current communication gap at all level. (Gap Analysis)**

Based on semi-structured interviews with the General Manager and focus group discussion with HOD/ HOS/Engineer/Executive and Team Leader in the job floor (Gap Analysis), it is noted that there was not any common interpretation of mission statement

and vision among the employees, thus a misunderstanding of the company's goal and objective prevailed. This led to misalignment especially between the company's goal and the operational strategy. Employees were doing their jobs without clear expectation about the outcome and the employer was not maximizing the effectiveness of the resources.

Apart from these, communication was also a problem between the employees and the top management. It could be approximated that there was only 40% efficiency of communication between the top management and the employee. This problem was very serious because without communication and relationship, we will not be able to build and improve the company. Sometimes it makes the introductions of certain new systems or programme such as TPM and Lean Manufacturing a failure. And even worse, majority of the employee only knew some information or news about their company in terms of problems, performance or the introductions of new company product from other channels such as the local newspaper but not from their top management announcement.

Actually, this communication breakdown was due to the lack of standardized reporting from the ground level to middle and subsequently the top management personnel such as General Manager (GM) and Head of Department (HOD). Standardization of reporting is very crucial because it is a way to make everybody in the company aware of the happenings in the company. Each level of employee had to report to their immediate supervisor at a fixed timing on matters pertaining to their daily routine jobs. Through this, communication breakdown could be reduced and any problems could be detected and corrected earlier and efficiently.

Apart from these problems, there was also unclear ownership of responsibility among the employees. Their job scopes were indistinct because they did not have specific job descriptions. Overlapping of work also occurred and this was made worst due to improper description of one's job scope. The top management was unable to simply give a task to their subordinates because there was no formal declaration of their job scopes. Employees do their task as they wish and without proper guidance resulting in difficulty to measure their achievement and effort. This is partly because no particular targets were set to appraise them and there was also no measurement system to evaluate and gauge their performance. In terms of production, data tracking between the production and the management level was also lacking resulting in communication breakdown.

#### **Setting standard reporting based on Quality, Cost, Delivery, Accountability, And Continuous Improvement (QCDAC) Principles.**

Figure 1.0 below presents the Standard Operation reporting flow in each level in the organisations. The chart shows that there are 5 levels of standard operating reports. Each person in each level will review and report their standard operation to their subordinates regularly based on the predefined frequency.

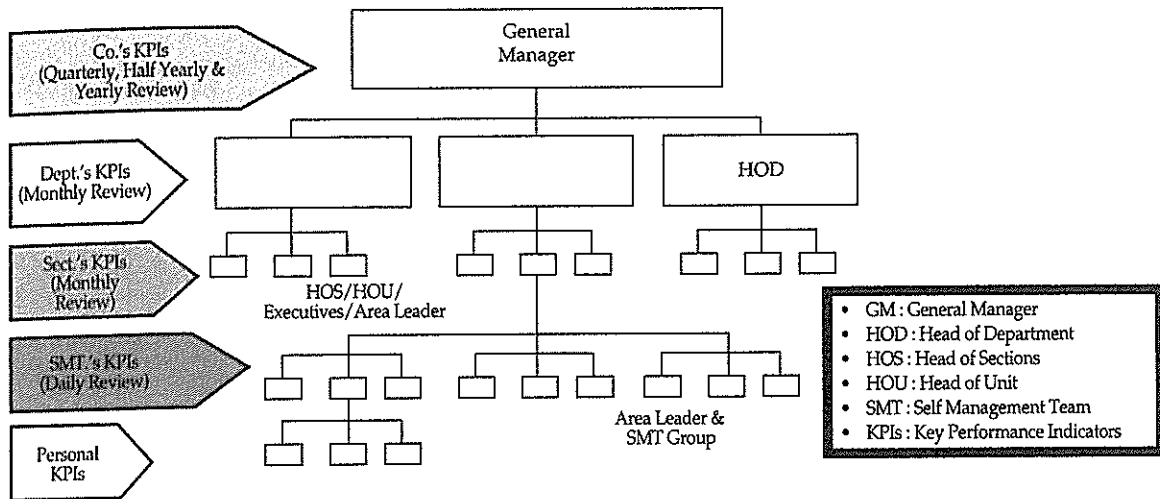


Figure 1: Company standard reporting flow and the reviewing frequency

To fulfil this course of action, SOFT analysis (Figure 2) was chosen to be the basic of Standard Operation reporting. SOFT analysis was used in the standard reporting of the company to identify the strengths, opportunities, failure factors and the treatments (the countermeasure of problem solving) of identified problem or failure at the production areas and management level. For example of Standard Reporting Based for HOD/HOS/HOU/AREA LEADER/TEAM LEADER, the reports are divided into four parts, namely Part A for the introduction; Part B for the SOFT analysis reports, Part C for the RAG status reports, Part D for the program and plan status and lastly Part E for the action plan of continuous improvement.

<p><b><u>Strength</u></b> To show any achievement in manufacturing process</p>	<p><b><u>Opportunity</u></b> To identify any opportunity in order to improve productivity</p>
<p><b><u>Failure factors</u></b> To identify the root cause of failure / problem occurred</p>	<p><b><u>Treatment</u></b> To identify the best solution to tackle any problem occurred</p>

Figure 2.0 : S.O.F.T Matrix Analysis

Listed below is a summary of the important findings that address the questions of the study:

The scenarios identified at the company gathered from semi-structured interviews and focus group discussion (Gap Analysis) are :

- (i) No common interpretation of vision / mission.
- (ii) No standardization of reporting.
- (iii) Misunderstanding of company objective.
- (iv) Difficulty to measure company and employee performance.

- (v) Communication breakdown.  
(vi) Unclear ownership of responsibility.  
(vii) Failure to identify the gaps.

#### Standard Operation Reporting:

- (i) Standard Operation reporting flow has been created in each level in the organisation. Each person in each level will review and report their standard operation to their subordinates regularly based on the frequency that had been decided.

## CONCLUSION

Among the success factor of a program such as lean implementation is the effectiveness of the communication among all levels of employees in the company. Methods such as the semi-structured interviews and focus group discussions can be used to get the gap and design ways to resolve the communication issue. Once the scenarios have been identified and standard operating procedures established the communication issue of the aerospace manufacturing company can be resolved.

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