



UNIVERSITI PUTRA MALAYSIA

**FAILURE TO MEET DUE DATE
OF DELIVERY TO CUSTOMER**

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of Delivery To Customer
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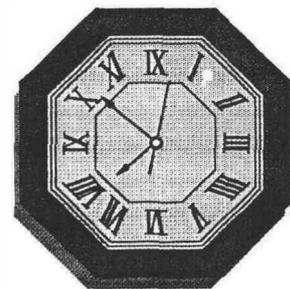
EXECUTIVE SUMMARY

Percetakan Nasional Malaysia Berhad (PNMB), previously it was a government body but since 6 years ago has been corporatized. It has been operating to cater all sort of customers which offer product that make to order as well as make to stock. PNMB goal is to penetrate commercial market domestically and internationally but however there is a big problem that need to be solve first as to avoid repetitive result.

The problem is PNMB fail to deliver goods on time to their customers. With this study will help to analyze the factors affecting to the problems as well as forecast some solution as to solve it. All the methods can easily to be implemented and appropriate for PNMB plant. Hence, let's us discussed and analyze the issues in more details.

CHAPTER ONE

INTRODUCTION



1.0 INTRODUCTION

Time has becoming one of the major factors in business, it mostly deal with the delivery of goods or services from sellers to buyers. As for operation system, time becoming one of the operation strategies to achieve its operation goals. Time is a major key especially in delivering goods to the customers or receiving from the suppliers. Goods that being received or being delivered on time will satisfied the buyers as well as the sellers.

Nevertheless, some of the goods are not being delivered on time. This lateness in delivering caused by various reasons which in this study will be veil out the truth of the factors contributes to it.

In fact, this issues is one of common case that most of the company face regardless their operating activities such as fast food industry like McDonalds who emphasize on fast and on time delivery, others like the developer who must complete their building on time as to sell them to the public. With this study results will enable the manufacturers to give their promises to their customers more accurately while the customers are able to plan their jobs more effectively and efficiently.

Like any other business industry, printing industry also facing the same problems in achieving its on time delivery especially Percetakan Nasional Malaysia Berhad. Before we undergo further analysis on the problems, let us see the other printers performances. According to Printing World article stated more than 85 printers operationalized on running it continuous production. While reference to the Federation Malaysian Manufacturers (FMM) article, all the registered printer with FMM are considered as a to be operating in a similar activities and running on continuos production such as Utusan Melayu (M) Bhd., Tien Wah Press (M) Sdn. Bhd., TWP Sdn. Bhd., Markmas Pak-Print Sdn. Bhd., MFP Printing Industry Sdn. Bhd. and many others. Unlike PNMB, its more on batch processing that involved on general printers based on customers orders.

Based on last year performance (refer to Table 1.1), PNMB is rank 4 from the top. It is a good indicator that PNMB has the capable on competing with other competitors in the market. Therefore it is important for PNMB to overcome its major problem fail to meet the due dates which has becoming the major issue, so that it can be the best printer in Malaysia before expanding its market globally.

	1997		1998	
	Staffs	Sales	Staffs	Sales
Printing companies				
Tien Wah Press (M) Sdn.Bhd.	500	\$ 61,000,000	500	\$ 107,600,000
Utusan Melayu(M) Berhad	1582	\$ 189,000,000	1784	\$ 189,000,000
TWP Sdn. Bhd.	1500	\$ 72,836,212	1500	\$ 82,000,000
Percetakan Nasional Malaysia	910	\$ 67,000,000	920	\$ 78,000,000
Markmas Pak Print	220	\$ 25,000,000	285	\$ 30,000,000
Others	814	\$ 81,000,000	814	\$ 80,000,000

Fig.1.1 - Printing Company (extracted from FMM Directory 1998)

Lateness in delivery will give a bad image to others potential customers as well as the existing ones in any business. This means that more of the potential customers will look forward for other printers. Due to this effects , many organizations tried to overcome this problems.

1.1 Percetakan Nasional Malaysia Berhad Background

Percetakan Nasional Malaysia Berhad (PNMB) was incorporated in January 1st,1993. It was originally known as the Jabatan Percetakan Negara Malaysia. With a history which dated back to 1888, PNMB is backed by experience technical personnel and a wide range of printing machines in all printing areas.

PNMB serves as one-stop Printing House which offers printing packages beginning from conceptual design to printing. Being the appointed printer to the Government of Malaysia, PNMB's core business is printing Government's requirement, namely forms, report, books, gazettes, computer forms and many others.

As one of the biggest printers in Malaysia, PNMB always updates itself with the latest technology available in the market. It also emphasizes on training and retraining workers as to keep up with the state of the art in printing technology. Today's, it tried to penetrate the commercial sector as well as the Government Sector which is the major player for PNMB profit.

1.2 VISION AND CORPORATE MISSION

According to PNMB CEO, the organization dream is to see it grows and expand as a technology leader where moving towards the intelligent chip cards services, printing quickly, quality production and able to cope the future competition. With more than a century valued experience in printing service, PNMB hopes to capture a bigger market as well as to be recognized as a prestige printer in Malaysia.

PNMB corporate mission are to be committed with their clients in the most speedy, comprehensive and cost-effective printing services in the region. According to PNMB corporate mission are as follows;

“ PNMB corporate mission is based on a set of guiding principles formulated to achieve impressive results such results that will certainly satisfy its clients and themselves in the printing service. PNMB believes to provide unbeatable service. Its pay special attention to details and offer our invaluable advice as a professional printer whenever it is needed.”

PNMB is fortunate to have a work force that is driven by discipline, scrupulous in work ethics and co-operative in team play. It spare no expenses in providing training program that improve performance by enabling the individual to obtain every relevant skill.

The most stringent safety procedures are also observed at all times, in all operations to prevent harm to our workforce or damage to the environment. Plant and equipment are kept in excellent working order to minimize the risks of breakdown.

PNMB main objectives in operating its business are;

- To achieve the annual target of RM50,000,000
- To maintain the "Profit Center " more effective
- To promote PNMB image as a commercial printer
- To prioritize the current market
- To explore more new potential market
- To be competitive in the high technology market

1.3 PROBLEM STATEMENTS

PNMB sales achieved as stated in FMM extracted earlier for 1997 and 1998 are more than RM65 million per year . This sales figure can be improved due to the fact that the government has given certain market at certain value to PNMB after corporatization. However, PNMB unable to meet certain needs of the customers such as the on time delivery, etc. As a result, some of their valued customers have changed their direction to search with others printers.

According to the Customer Feedback Committees figure (refer to Table 1.2), its quoted that more than 35% of the feedback results from the customer complains are on the lateness in delivering goods. In conjunction to lateness is partial delivery problem that also indirectly contribute to the failure to fulfill the full delivery to the customer on time.

Based upon Card Received –dissatisfied (relates to pg-58)

Criteria	Jan	Feb	Mac	Apr	May	June	July
Packaging	2	1	2	1	1	-	-
Quality	2	3	1	2	-	-	2
Quantity	1	3	4	2	2	-	-
Delivery	5	6	4	3	-	-	-

TABLE 1.2 – Dissatisfaction Complain on Delivery

As the result, this issue damage PNMB image to the public eye because they might scared to print with PNMB. The possible reason is they feel that PNMB is unable to fulfill their orders on time especially those jobs that really need to delivery by its date such as Program Book, invitation card, form use by public, etc.

Due to this, some of the customer reluctant to print with PNMB. This act might jeopardize PNMB income generated as a whole. As we know that PNMB is operating in a batch operation basically on servicing its concession customer, non-concession, private and stock items. As for concession customer, it's a compulsory duty to print with PNMB but others categories are not obliged to do so. On top of that PNMB, it just cannot simply rely on concession alone because after certain period of time the government will not

allocate any further contract to PNMB. In order to gain more confidence among the customer to print with PNMB, it really needs to consider and solve this problem as well as overcome it soon.

1.4 OBJECTIVES OF THE STUDY

The main objectives of the study are to analyze the major reasons that contribute to these problems and how to solve it. Firstly, the study would like to focus in the area of production that cause the delay in work progress. Further, it provides alternatives in overcoming and solution to the problems using the Quality Tools. Once the selected alternatives being agreed upon, we will implement the alternatives in the system as to see whether it works or vice versa.

Secondly, to reengineer any possible department or workflow which slow down the process of the job completion as to meet due dates. To check the scheduling system that being done by the Planning Department whether the department has correctly plan or vice versa.

1.5 IMPORTANCE OF THE STUDY

From the Table 1.3 below, we can see that the delivery fulfillment is shown more lateness than deliver on time. Through this we can conclude that late delivery is a major issue to PNMB. Due to this problem PNMB cannot achieve its vision to be operating as a Profit Center. To be a profit center, PNMB must maintain a good image to fulfill the promise so once PNMB promote its image as a commercial printer, they able to prioritize the current market, able to explore more new potential market and able to be competitive in the high technology market as long as the public have the trust and confident with PNMB products and services offered.

Practically, every customer need their order to be fulfill on time, deliver high quality and offering at a competitive price. Moreover, the major reasons that this study is carried out is to allow us to analyze the cause and effect that contribute to the delays in deliver goods and services to the customer.

The search is also to figure out the best alternatives to overcome the problems and preventing from occurring again. The importance of this issue is that it effect the income generated to PNMB because if goods are received late,

then the payments will be late too. This result in a failure to produce invoice.

The invoices can only be prepared once the jobs are fully supplied.

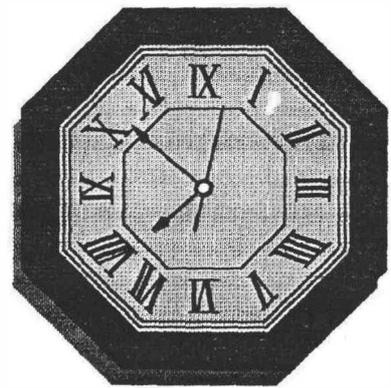
This is also a strong reasons to carry out this study is to improve the problems on pending invoices which becoming part of the problems facing contributes due to this lateness of delivery. Sometimes, PNMB will fulfill part delivery first but after few weeks then deliver fully to the customer. This activities have cause a lot of problems to PNMB which as a result, once the goods finished deliver, the probabilities for both parties (customer and supplier) to forget to produce invoices to the customer is very high. Hence at the end of the process, no income goes to PNMB account except incurred losses. To solve this problems will take few months to deal especially those customer that previous dealing earlier have been changed to different department or transferred to other states. Furthermore, this study will also tends to prove the cost involve due to this lateness and the benefits PNMB will gain from it.

Month	EARLY ONTIME		1-2 DAYS	3-5 DAYS	6 DAYS
JAN	64	26	32	29	153
FEB	75	49	2	6	205
MAC	85	50	52	41	93
APR	113	63	79	67	149
MAY	66	23	33	47	90
JUNE	112	83	89	77	136
JULY	91	71	73	50	172
AUG	99	37	52	46	97
SEP	69	24	48	60	144
OCT	52	32	23	41	201
NOV	49	19	45	33	110
DEC	5	25	41	26	85
TOTAL	880	502	569	523	1635
%	21.42%	12.22%	13.85%	12.73%	39.79%

Table 1.3 - Delivery date
Summary

CHAPTER TWO

LITERATURE REVIEW



2.0 LITERATURE REVIEW

2.1 CUSTOMER CHOOSE COMPETITORS

Presently, PNMB customer has change their direction by printing their jobs with PNMB competitors. This give a bad income and image for PNMB which is known as one of the biggest printer in this country that offers various kind of printing services. One of the major reasons to this problem is due to late delivery performances. Normally, the customers will not bother so much of pricing but more concern on meeting their due dates or datelines. Most of PNMB deliveries date are beyond the datelines.

2.2 WHY LATE DELIVERY OCCURS

Late deliveries reflect a bad management of the organizations. The late deliveries mainly involved in a macro ways which dealt with internally and externally factors that can be classified into 4 major contribution to this problems. Dr. Edwards Deming in his 14 Classic Books has mentioned that any problems can be identified by classifying the factors that enable to focus more accurately. *Variation in raw materials, machines, equipments, work methods and operators will produce variations in quality dispersion observed. A cause and effect diagram will help sort out the cause of*

dispersion. This is the most useful tool in quality assurance. (Article of Quality Control Techniques In Manufacturing Operations, pg.41)

1) **Man Factors**

PNMB is one the biggest printer in Malaysia. Its has been operating for more than 110 years since its establishment in 1888. In terms of expertise, PNMB should be granted the awards as the most experience printers as its serve as the general printing to the government earlier. Earlier, PNMB only receive orders from the all the government departments without focusing on the delivery dates. The customers (government departments) place their orders yearly but commanding to deliver partially to them throughout the year.

Since its has been corporatized, their customers has been given the right to orders with other printers except for certain groups of government department that are compulsory to order with PNMB. As to promote PNMB services printing, PNMB has appointed more of sales representatives to follow up with their existing customers as well as others potential customers.

However, PNMB sales representatives are not fully committed with their jobs. This is due to their skills which they blindly promise their customers to deliyer the orders at a specific dates without focusing the capacity and the

capabilities of the production. Besides, the sales representatives are only acting as a job taker instead of being a consultants to their customers. Acting as a job taker creates a lot of problems such as unaware of production capacity and material availability. As to that commitment, once the quotation being approved by the customers, then they found out that the difficulties to source materials and to get it will takes few weeks.

Upon the arriving of the materials, the job due dates is nearly overdue. A proper planning and information on the availability of the materials need to be conform first before any agreement being made. Nevertheless, the production workers also play more important role to guarantee any job comes in, will be completed on time. Sometimes, they prefer to delay the jobs especially if they see that the due date is a month ahead without considering that the period of time given based on its work process that acquires such period of time to be completed. Furthermore, the perception of the workers to delay jobs that already given partial supply to the customer. *Perception can be defined as a process that individuals organize and interpret their sensory impression in order to give meaning to their environment. Among the factors influence perception are interest, expectations and motives. (Organizational Behavior, pg.132)*

Many cases shown that after they given a part supply to the customer, they tends to delay it until come to certain time they being asked again by their

customer. In some cases, PNMB has to give discounts on job that cannot be completed fully. The consequences of this are PNMB will receive late payments, less income from actual quotation, customer not confidence with PNMB and many others.

According to the monthly production statistic in Table 1.4, it indicated that more than 12% on the average is reported that not enough manpower in the production floor that jeopardize the productivity of the company. If PNMB is able to overcome this problem, it guaranteed to increase its productivity and more work will be produced and completed within its target times.

Production	Jan	Feb	March	April	May
Total Machine Hours	6295.75	4882.00	11302.50	10391.00	9442.00
Total Productive Hours	4984.00	4478.75	10161.00	8585.50	7521.25
Total Non-Productive Hour	1311.75	403.25	1141.50	1805.50	1920.75
Average % for machine breakdown	5.57%	4.30%	7.57%	6.78%	4.79%
Average % for less dockets	1.39%	3.20%	3.39%	0.35%	2.70%
Average % for less workers	13.88%	14.00%	13.02%	10.25%	12.49%

Table 1.4 – Production Productive Performance Report (Jan-May 98)



2) **Method Factor**

i) **Organization Structure**

Organization structure is the formal pattern of interaction and coordination designed by management to link the tasks of individuals and groups in achieving organizational goals. (Management, pg.285) This method factor also contributing to the effect of lateness in delivery. The method is referring to the organization structure concepts as well as the jobs design for each department involved. *Job design specify the task activities associated with a particular job whereby the work specification is the degree to achieve organizational goals which broken down into various jobs. (Management, pg.284)*

PNMB production floor is actually registered under Kuala Lumpur Branch. Under KL Branch consists of 3 major departments which are the Marketing, Production and Delivery. According to Bartol & David, they describe hybrid structure as a form of departmentalization that adopts part of both functional and divisional structure at the same level of management. Many organizational have some combination of functional and divisional departments. It is just like PNMB which has five main senior managers with six of branch managers who controlling the PNMB branch operations. Each Branch Managers function as the decision maker just like the Senior Managers. The Branch Managers also managing their own financial activities,

administrative activities, operation and others. Where else the Senior Managers, manage their own department as well as monitoring all other branches activities. In fact some of the Senior Management are solely responsible to Head Quarters only.

A hybrid structure tends to be used in organizations that not only face considerable environmental uncertainty that can best be met through a divisional structure but also require functional expertise and efficiency. Eventhough, its sound simple but its hard to management. In facts, PNMB still implementing red tapes such as procedure of proceeding dockets to production. The job which normally known as dockets, will need to approve by various person before enter production.

Once a job being confirmed by the customer, the sales representative will open a work ticket or docket (refer to Appendix 1) Before the docket reach Planning Department, it needs to go through various stages for approval which firstly the MIS review, then Stock Review and lastly Manager review for approval. Once everything seems confirmed, the docket will be send to Planning Department. As it registered in Planning, the Planning supervisor will try to load the job based on the machine capacity and its material requirement.

Most of the time, the supervisor will load as many as possible docket to the production floor. After manual load, they will transfer the document to the data entry operators as to load once again in the computer. Then, the docket will be dispatch to Camera and other related units based on its work process. The major problems here is the Planning Supervisor attitudes which only concerned on schedule jobs in machine but neglecting to schedule jobs for binding area. That is the reason why a lot of job are cleared at printing machine but stuck at binding areas. They should do sequencing and monitoring those jobs entered into the production floor without fail.

Once the jobs completed, it goes direct to Finishing Goods Department for delivery and invoicing. But sometimes, Binding Unit fails to produce Finish Goods document to them, hence they delay the delivery to the customer. Also with the policies implemented by PNMB that all order must have Local Order (for government) or Purchase Order with 50% guaranteed deposits (for private customer) If any of the customer fails to do so, they will not deliver the goods until it has produced a confirmation letter on this issues.

Another issues here is the ways of ordering goods as to replenish their stock up to the level needed. The officer in-charged has not being fully plans his stock. That is why some of the re-order level of its stock not up to date which when machine is available to print there is less or no job to be printed. But vice versa, when machine has job to be printed, then that is the time the stock items order will enter and need to