



**UNIVERSITI PUTRA MALAYSIA**

**LNI-ADCAL AUTO PARTS SDN BHD  
A CASE STUDY**

**LIM YOKE KHIAN**

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# **LNI-ADCAL AUTO PARTS SDN. BHD : A CASE STUDY**

**LIM YOKE KHIAN**  
45089

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**LIM YOKE KHIAN  
45089**

## **LNI- Adcal Auto Parts : A Case Study**

### **Abstract**

This case was about an automotive parts manufacturing company which experienced some difficulties in sustaining profitability in its business operation. It had struggled through the early years to establish its name in the local automotive industry. The struggle was thought to be over when the turnover achieved the highest level in 1996. However, it was not so because the profitability had declined significantly.

The price competition in the industry was intense particularly so in the OEM market. The problems were traced back to the annual price reduction exercises conducted by local automotive assemblers. Every year, the price reduction exercise was becoming severe and realised it has some difficulties in maintaining its competitiveness in the industry. The management believed that one of the solutions was to increase sales and at the same time, produced quality products which could lead to improved profit margins. Hence, there ought to be continuous improvement in the quality of the products through efficient use of the production facilities. As in the past years, the company did experience some quality problems in production and these incidences were gradually minimised with the introduction of quality measures and the replacement with new machines and equipment. Higher sales could be achieved through market expansion in domestic and regional markets. The management of LNI-Adcal Auto Parts has the first taste of export to the Philippines. Finally, the company hoped that through export, it could achieve the desired profitability and increased turnover.

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# **Part One**

**LNI-ADCAL AUTO PARTS SDN BHD**



## LNI-Adcal Auto Parts Sdn. Bhd. (LAP): A Case Study

### 1.0 Introduction

One morning in the office's conference room, the following was an excerpt of the discussion which took place:-

17<sup>th</sup> January 1997

"Marketing department has informed me that the domestic automotive assemblers have indicated an upsurge in production volume. Companies like Proton, Perodua and Modenas are planning to some extent increase production outputs for this financial year 1997/1998 . For instance, Proton will increase their production to 220,000 units ; Perodua Manufacturing intends to produce 100,000 units; and Modenas' output is about 80,000 motorcycles. The other automobile assemblers have also predicted a marginal increase in their production volume to meet the expected businesses".

" Well, that is fine! The expected increase in production outputs for this year augurs well for this company. But, we are grimly reminded of the previous year's cost down exercise by these automotive customers . Pricing seems to be the key issue in these negotiations for additional parts. There is a possibility that the company's profit margin may further dwindle after this year's annual cost

reduction exercise as these automotive assemblers are definitely going to demand for lower price on the company's existing range of products . The price negotiation is normally held in the month of March and April every year. These automotive customers with large production capacities will force any one to comply with their target price .There are definitely some risk elements during the price negotiation with these customers. At best, the company could be awarded with more parts and components. The worst situation will result in the company loses some of its existing market share to other competitors. The company's profitability suffered as it tries to maintain competitive pricing for its products. If that is the case, the company could be forced to seek additional unit sale elsewhere to overcome the shortfall in profitability . The rationale behind the drastic cost reduction exercise is to enable national automotive assemblers to compete effectively against established automobile manufacturers from Japan, Europe, America and South Korea “.

“ In the other related issues, LAP should practise prudence strategies in offering the right price for new parts and components . The strategic approach in pricing, quality products and established supply track record can result in securing the new supply contract. If any of these performance criteria is not fulfilled , LAP may lose their credibility and competitive edge in bidding for future automotive

parts and components. We must not forget that there are still other component manufacturers who are eager to enter this industry. With the larger production capacity, these new manufacturers will try to use low price strategy to penetrate the market. In the case of Proton and Perodua, the management of these companies have to ensure a fair distribution of parts to the existing vendors. Proton and Perodua have developed an effective vendor development programme to create new vendors and assist existing vendors to improve the production outputs”.

“ From now on, the company’s urgent priority will focus on strategic planning to increase its profitability in the short to medium term period. If it can’t find an effective plan soon, LAP may encounter some financial difficulties in the near future. Hence, this may jeopardise the business expansion plan. The managers will have to minimise their department expenditures while improve on productivity in their respective departments”.

“ Frankly, the company’s Board Of Directors were dissatisfied with the overall profit performance. They’ve agreed that the company should hurriedly establish new profitable export markets. I’ve instructed Allan Thong from marketing department to conscientiously search for new markets in ASEAN countries. Teamwork is essential to ensure 100% success in achieving the company’s goals and objectives. The other priority of automotive customers is the delivery

of good quality parts and components. Deliveries of parts have to be on time according to the delivery schedules and monthly production forecasts. All parts deliver to the automobile manufacturers are subject to stringent quality checks and inspection before delivery. In the past, this company experienced some serious production problems in meeting customers' quality requirements , but all these problems were minimised with introduction of some quality measures . As long as the employees and management think of 'quality' , the company is on the right track to achieve its objectives and goals. We are confident that with the implementation of appropriate countermeasures, it will give us the necessary competitive edge and help us return to , and exceed, our previous levels of profitability . Whatever had been said, the fact that the profit margin for the existing products dwindled and what 're we going to do now? ”.

These statements were made by Mr Patrick Goh Boon Seng , Chief Executive Officer (CEO) of LNI-Adcal Auto Parts Sdn Bhd (LAP) to all the department managers at one of his regular monthly meeting with department managers .

This discussion was necessary for Mr Patrick Goh to gather the views of these managers on some of the pertinent issues and problems which the company as a team must address.

## **1.2 Company Background**

LNI-Adcal Auto Parts Sdn Bhd (LAP) was formed in March 1989, a joint-venture between Australian and Malaysian businessmen , with an authorised capital of MYR 10 million of which MYR 2.5 million has been paid up. The company was registered to carry out silkscreen printing, manufacturing and engineering activities. The factory was located in Shah Alam Industrial Estate , Selangor and occupied an area of 23, 500 sq. feet . The principal market for the company's products was in the automotive. The major accounts were Proton, Perodua and Modenas . In 1996, the company achieved a turnover of MYR 17, 335,000 and net profit was at MYR 60,000 . The net profit suffered with a decrease from the previous year of MYR 65,000 to MYR 60,000. At the present, its factory utilised up to 75 per cent of its installed capacity.

## **1.3 History of the Company**

It all began, when Mr Patrick Goh Boon Seng from Lembah Nusantara Industries (LNI) was introduced by a businessman friend in Australia who had recommended Mr Dennis Miller . Mr Dennis Miller was a founder and a Chief Executive Officer in Adcal Manufacturing (Adcal) which supplied a range of quality plastic automotive parts to the Australian automobile industry. Some of

their key customers were General Motors, Ford, Mitsubishi Motors, Nissan, Toyota and Hyundai.

Adcal's turnover was reported about A \$ 25 million in 1988. The Australian company was keen to collaborate with any Malaysian company which has a common business interest in the Malaysian automotive industry. An agreement to form a manufacturing company was reached on March 1989 and it was named LNI-Adcal Auto Parts Sdn Bhd. LAP agreed to offer Adcal 49 % of the company's equity for their long term commitment and technological transfer to the Malaysian based company. The 51% equity was held by LNI which involved in management of the factory. Under the technical agreement, Adcal Manufacturing, the Australian company was to provide technical assistance to LAP in the production of plastic based automotive parts and components.

A total of 7 key managers and production supervisors were sent to Adcal Manufacturing for technical training and orientation. To ensure that there were no hitches in production, it was recommended that the first batch of machines and equipment purchased for the Malaysian plant was similar those in Adcal Manufacturing. The agreement allowed Mr Ian McDonald, the Technical Advisor to be stationed in the Malaysian plant for two years to assist in skill development of these key production staff.

In the early years of its operation, the company incurred losses because of the high capital investment on printing machines and die-cutting equipment necessary to increase the expected production output. At the same time, the market demand for original equipment (OE) parts and components was still small. Most of automotive parts were imported to meet the needs of the replacement market.

Proton was the target business. Efforts were made to secure the initial batch of Mitsubishi parts selected for localisation. The development costs for the few parts were excessive. The company's continuous effort paid off when Proton appointed them as a vendor. It was able to command high prices and better profit margin back then because of lesser price competition for the same products it produced. Today, the company was still the supplier of automotive parts to the original equipment (OE) market and expanded into domestic replacement market.

### **1.3.1 Fundamental Objective of Company**

The management of LAP agreed that the fundamental objective for this company was to achieve the status as a dominant supplier of automotive parts and components by the year 2000.

### **1.3.2 Company Range Of Products**

Today, the company produced a range of products such as plastic chrome mouldings, garnish, hub-cap, plastic buttons, plastic parts, aluminium nameplates, chrome emblems, plastic marks and decorative labels. These products were sold mainly to the original equipment market (OEM) and to the lesser extent to replacement market. Some of these automotive products could be sold to export markets. New products can be developed for these markets which generally offered larger quantities.

At LAP, most of the automotive products were produced to customers' technical drawings and specifications. For example, Proton's parts and components followed the technical specifications of Mitsubishi Motors, Japan. The finished products were certified for quality, reliability and product performance at SIRIM. Quality practices have always been emphasised at LAP, considering that many of their existing products were aimed at the top end of the automotive market.

### **1.4 Key Accounts: Customer**

LAP's customers in the automotive market were Perusahaan Otomobil Nasional (Proton), Perodua Manufacturing, Lion-Suzuki Motors, Tan Chong Motors,



UMW Toyota, Automotive Assembler Malaysia, AMIM , Oriental Assemblers, Malaysia Truck and Bus and Daihatsu . Proton was the company's biggest single customer contributing about 45% of the turnover in 1996.

## **1.5 Organisation Structure**

In term of the organisation structure, LNI-Adcal Auto Parts was organised into four departments: Marketing, General Administration and Accounts, Production and Personnel ( **See Appendix:** Exhibit 1: Organisation structure ). The Marketing Manager, Production Manager, Administration and Account Manager and Personnel Manager reported directly to the Chief Executive Officer. The organisation structure was lean to ensure an effective decision making and cross functional communication and co-ordination. Each of these department managers was supported by experienced executives, engineers and line supervisors. The total workforce was numbered at 195.

## **1.6 Company Performance**

The company's turnover for the financial year which ended on 31<sup>st</sup> December 1996 posted at MYR 17,335,000 . The total sales were contributed from the

automotive industry. The profitability of LAP was expected to improve from the expected increase in the domestic demand and exports. There were strategic marketing plans to export to other ASEAN countries. The selected financial information of LNI-Adcal Auto Parts from 1993 to 1996 on Table 1.1, 1.2, 1.3 were as follows :-

**Table 1.1: The Selected Financial Information of LNI-Adcal Auto Parts Between 1993 to 1996 (MYR'000)**

<b>Financial Results ( MYR' 000)</b>	<b>1993</b>	<b>1994</b>	<b>1995</b>	<b>1996</b>
Turnover:	12,943	14,826	15,254	17,335
Gross Profit Margin (%)	28	23	20	20
Net Profit	638	447	65	60

Source: Company record

**Table 1.2 : Turnover Performance of LNI-Adcal Auto Parts Between 1994 - 1996, in Percentages**

<b>Year</b>	<b>(%)</b>
1994	14.5
1995	2.8
1996	13.6

Source: Company record

For the financial year 1997 , the projected sales was MYR 21,500,000 which included exports . (See Appendix: Exhibit 18: Pro forma Income Statement , 1997). Based on the comparative study on the financial results of LNI- Adcal Auto Parts (LAP) , the management has find solutions to improve the profitability of the company's operation.

**Table 1.3 : Net Profit Performance Of LNI - Adcal Auto Parts  
Between 1994 -1996, in Percentages**

<b>Year</b>	<b>(%)</b>
1994	( 30)
1995	( 85.5 )
1996	( 7.7)

Source: Company record

### 1.7 Production Department

The production department occupied a large area of 19,500 square feet which was divided into the following units: Printing, Engineering, Art / Design, Lenscal

(Polyurethane Encapsulation) , Die-Cutting, Mould / Plastic Injection , Oven baking, and Quality inspection. The production processes involved the various units as illustrated in the process flow chart ( **See Appendix : Process Flow Chart**). At the present, there was no Research and Development (R&D) department in the company. All R&D activities were kept at a minimal phase and confined to a few minor improvements and changes on the existing products by the Engineers. In the factory building, there was fenced storage facility for the incoming raw materials and finished goods. The total workforce in production department was at 157.

The production department was headed by Mr Mohammad Azrul who joined the company in 1995. Mr Azrul had previously worked as a Mechanical Engineer with Klang Container Terminal . He was in charge of the department's production planning, scheduling and operation.

The production processes for the automotive parts were more complicated and have to subject to stringent quality tests. Part of the work has to be contracted out to vendors as the company did not have the available facilities. For example, chroming and spray painting jobs have to be sourced externally. There were numerous occasions where the company has to contract out small automotive jobs to these external vendors in order to enjoy the economies of scale on production of large volume of similar parts. On several occasions, there were

late deliveries by these subcontractors because of their machine breakdown. The late deliveries and delays of raw materials from overseas vendors were common. Hence, these problems have forced the department to reschedule their production jobs. Any recommendation for changes in the line machines and processes would have to kept at the minimal. The company did not carry out the necessary vendor development program for all its existing and potential vendors. This program would ensure raw materials and the related parts arrived just-in time with the required quality certification from the manufacturers and vendors.

In the early years, LAP received numerous complaints about the product quality from their customers. Even though steps have been taken in the past, there still existed some teething problems related to quality of products. However, these problems were minimised through the implementation of quality measures. Problems were the results of the employees' attitude towards 'quality'. Generally, the complaints from customers were related to defective products being delivered to customers. These products were rejected due to physical defects, inferior quality and damages during consignment. To some extent this has affected the profitability of the business. Based on the internal quality control reports, some of the serious problems were related to poor quality of the finished products. These defective parts were somehow passed undetected at the various stages of production processes. Most of the defective

products were detected at the final stage of inspection at the packing room. Some of these quality problems were caused by a few obsolete and old machines in certain production units. The maintenance engineers were kept busy repairing these old machines. The spare parts have to be imported from overseas as it could not be sourced locally.

In 1996, the Quality Assurance Manager had compiled all the random quality surveys conducted throughout that year at the various stages of production processes to determine the extent of sub-standard parts. The result was collected and summarised statistically as shown on the Table 1.4:

**Table 1.4: Quality Survey On Stages of Production Processes**

<b>YEAR : 1996</b>	
<b>Stages of Production Processes :</b>	<b>% Sub-Standards (Average)</b>
Unit : Printing	17
Die-Cutting	22
Lenscal	25
Others	16

Other processes : Moulding, polyspot, bezel assembly, roller coat and artwork

Source: Company's Quality Assurance Department.

In the recent years , the problem on breakdown of old machines was minimised. The company has started replacing some old machines and equipment as and when there were available funds. The replacement with new machine was necessary to prevent bottlenecks in production output. The cost of rework, returns ( due to poor packaging) , defective parts were excessive .

Nowadays , the emphasis in the Production department was towards quality excellence, workers' welfare and training of employees to perform multiple tasks. Quality has always been important to LAP, considering all their products were sold to the automotive markets which demanded high quality compliance by the vendor. These automotive products were charged at high prices to reflect on its quality . The pricing of these products varied from MYR 15.00 to MYR 80.00 .

After being presented with the quality inspection results (**As shown on Table1.4**) by Mr Patrick Goh, Mr Azrul then decided to take up the quality issues with Mr Peter Dass, the Quality Assurance Manager and the following excerpt of the conversation took place at his office.

Mr Peter said: "The unit supervisors in Printing, Lenscal and Die-Cutting sections seemed to feel I was being too fussy with the required quality by our major customers. For example in the printing section, there were too many small

jobs which had contributed to the high rejection rates. The problem in this section started during the job changeover. The initial adjustments of screens and ink application on the printing machines could have contributed to the significant rejection outputs. In addition, the printing section has on many occasions experienced difficulties in colour matching for critical printing jobs. Whereas in the Lenscal section, the humidity within the polyurethane casting room has to be regulated as these resins are very sensitive to the change in room temperature and humidity. The dust concentration in the room has to be reduced to achieve optimum outputs. The high rejection rates were the result of these unfavourable conditions within the polyurethane casting room and caused formation of tiny bubbles and dust particles on the surface of the product. Technically speaking, if that happened, the Quality inspectors have to reject it before it could be passed onto the next process “.

Mr Peter continued : “ Frankly, if we’ve to sort out all the rejects from the whole lot like that, we may never be able to meet the delivery on time. I don’t think these guys in the process care anymore. What the section supervisors were interested was to meet the projected daily output to please the top management. They don’t care if we send half or all of them back for rework. Definitely, all these rejects are affecting our profits and outputs“.