

**AUTOMATION AND OTHER MEASURES TO REDUCE COST OF PRODUCTION  
INCLUDING HUMAN RESOURCE**

**BY**

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**1- Sugar industry of Pakistan, before independence**

We know that at the time of independence of Pakistan, this part of the world had inherited only two small sugar mills. First of the two sugar mills i.e. Co- operative Sugar Mills, Rahwali (had started operation in the season 1936 – 37 with a daily crushing capacity of 450 tons while the other one Frontier Sugar Mills, Takht Bhai had started operation in the season 1938 - 39 with a daily crushing capacity of 1000 tons. So, we can say that sugar industry in Pakistan is older in age than that of Pakistan. The oldest Mills does not exist anymore while the other one is inoperative but not completely closed & may go into production in the near future.

**2- A brief review of growth**

After independence in 1947, Government felt the necessity of various sort of industries including Sugar industry. PIDC was established with this objective. Except for Premier Sugar Mills, Mardan (3,000 tcd plant which had been ordered before partition & started operation in 1950-51), sixteen more sugar mills were established in (West) Pakistan till 1968-69 by PIDC & handed over / sold to private sector. Sugar industry kept its pace of growth slowly & gradually. By the year 2000, our daily crushing capacity increased to 300,000 tonnes & now stands at around 600,000 tcd.

**3- Problems due to unplanned growth**

We did not realize that without finding an appropriate market for the surplus after domestic consumption, the industry will land into trouble. No doubt, this industry remained highly prosperous till mid eighties. Troubles started after abrupt de zoning for considerations other than merit. This gave birth to middle man, resulted in increase in transportation cost & also proved detrimental to fresh supplies of sugarcane. Middlemen & transporters flourished at the cost of poor farmer & consumer while industry was also badly affected.

**4- Performance of sugar industry although remained inconsistent. However, it was building up on sound footings financially. Employees & farmers reaped the fruit. All the four stake holders remained happy & satisfied.**

**5- This is unfortunate that the industry after such a huge expansion in general is struggling for its survival. Results in south of Punjab are excellent but industry in central Punjab & north of Sindh are facing a disaster.**

**6- Unrealistic sugar cane price without any consideration for sugar price has ruined many sugar mills where equity has been wiped out.**

All above has forced the industry to take all measures to cut cost of production to make the industry economically viable.

Presently COST OF PRODUCTION IS higher THAN COST OF SALES & WE CANNOT PAY CANE COST TO GROWERS.

WE CANNOT EVEN EXPORT SUGAR BECAUSE OUR COST OF PRODUCTION IS HIGHER THAN THE INTERNATIONAL MARKET PRICE

HOW CAN WE REVERSE THE BAD CYCLE.

1. Must concentrate on R & D. We must establish Sugar cane breeding stations & Sugar cane Research Institutes in all the ecological Zones.
2. GROW HIGH SUCROSE VARIETIES OF CANE .
3. INCREASE SUGAR CANE AND SUGAR YIELD PER HECTARE.
4. REDUCE CUT TO CRUSH LOSSES.
5. START USING MECHANIZED CANE HANDLING OPERATIONS.
6. REDUCE POWER REQUIRED TO CRUSH AND PROCESS CANE.
7. REDUCE MAN POWER BY ADOPTING AUTOMATION AND AUTO CONTROL.
8. STUDY EACH WORKER MINUTELY, HOW MANY HOURS HE ACTUALLY WORKS AND HOW MANY HOURS HE WASTES HIS TIME IN ,TALKING ON MOBILE,ROAMING AROUND FOR TEA ,WATER AND FOOD FIX TIMINGS.
9. ROLE OF CC TV CAMERAS.
10. AUTOMATE ATTENDANCE SYSTEM.
11. REDUCE LOSSES AT MILLS. IMPROVE OUR MILL EXTRACTION.
12. REDUCE PROCESSING LOSSES. CONCENTRATE ON GOOD CLARIFICATION, EVAPORATION, GOOD PURGING, MINIMUM CIRCULATION OF MOLASSES
13. REDUCE INSULATION LOSSES.
14. REPLACE INEFFICIENT DRIVE SYSTEMS.
15. CONTROL FUEL AND LUBE LOSSES.
16. UTILIZE BY PRODUCTS FOR PRODUCING VALUE ADDED PRODUCTS.
17. CONTROL ON STORE INVENTORY, STRATEGIC & ESSENTIAL STORED.
18. BANK CREDIT LINES .
19. FIGHT FOR THE RIGHTS OF INDUSTRY LIKE APTMA