



case study

Elcoteq: The Monterrey, Mexico Facility

ELCOTEQ COMPANY SNAPSHOT

INDUSTRY SECTOR

Electronics Manufacturing Services

WORLDWIDE EMPLOYEES

17,400 in 2008

MONTERREY PLANT EMPLOYEES

Approx. 5,000 in 2008

REVENUES

€3.44 Billion Worldwide in 2008

AMERICAS HEADQUARTERS

Richardson (Dallas), Texas

Elcoteq operates in 15 countries on four continents and employs approximately 17,400 people. One of the company's largest production facilities is in Monterrey, Mexico where Elcoteq produces personal communication devices for some of the top brand companies in the world. With margins in the industry being razor thin, the plant decided to boost capital utilization by going to 7-day operations. This is no easy feat considering the labor laws and the culture in Mexico are not attuned to regular Sunday work.

The Challenges of 7-Day Production in Mexico

Companies wanting to operate 7-days a week in Mexico, and most Latin American countries, face a number of hurdles that are both legal and cultural. Overtime, maximum work hours, pay, and accounting for pay are very different in Mexico. These differences compound the cultural hurdles that must be overcome.

To start, many Latin American cultures see Sunday as a day of rest. This stems from religious tradition, but is supported by national labor laws and union rights gained throughout the regions. In Mexico, employers are required to pay premiums for Sunday work no matter how many hours an employee has worked. In many cases, those premiums are double or triple the "straight time" rate. Most employees work six 8-hour days to fulfill the maximum allowed 48 hours of work per week. As in the US, to get more days off, longer shifts must be worked (more work on any given day means more days off in a week). Longer shifts, however, must be approved by a union or premiums must be paid for working more than 9-hours in a day. Longer shifts and Sunday premiums are only two examples of many issues that must be considered and resolved.

The Problem

When the Monterrey plant shifted from 6 to 7-day operations, the management team and union decided to implement a 12-hour shift system. They realized that by doing this, day shift employees would not complete 48 hours of work (they would only work 42 hours). In Mexico, employers must pay employees a weekly wage in exchange for 48 hours of work. This weekly wage is not reduced for fewer hours worked. And there are issues with payment of overtime. To try to solve the problem, local management created a system for "recuperating" the lost time by working additional shifts each week. The system allowed them to "recuperate" an average of 3 hours per week, raising the average workweek to 45 hours - still 3 hours short of the 48 allowed by law. However, the timing of "recuperation" days was somewhat random, which meant that a day of work may fall on a day contiguous to other shifts or might break up a series of days off.

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Several problems existed with the system they created. First, they were paying employees for time that was not being worked. Second, employees did not like the system and often did not show up on their "recuperation" day without consequences for their absenteeism. Third, the broken system was difficult to manage as there was no plan for using people on their "recuperation" day. Overall, the effort to improve plant capital utilization by running seven-days-a-week had driven per unit labor costs through the roof.

Coleman Consulting Solution

After almost two years of operating with the broken schedule system, Elcoteq engaged Coleman Consulting to design and implement a schedule that would recapture the lost labor costs. In addition to the obvious challenges resulting from the "recuperation" schedules, Coleman Consulting found that:

1. Inequity between the employee crews was leading to higher than normal turnover.
2. The management and administrative schedules did not support the 12-hour, 7-day operation resulting in significant losses in labor efficiency during shift start times and break and lunch times.
3. The "recuperation" schedule lacked the flexibility which led to overstaffing during periods of demand increase and decrease.

Using the Coleman Consulting methodology, a detailed survey of employees helped define the path to implementing a new schedule that would fix most of the problems Elcoteq was facing. In that survey, employees' observations were generally summarized as follows:

1. All crews indicated dissatisfaction with the inequity of the schedules for different crews.
2. Employees liked 12-hour shifts and the time off it affords
3. Employees were extremely dissatisfied with the system for increasing the average work week from 42 to 45 hours.

Following an operational analysis, Coleman Consulting detailed several scheduling model options that would provide Elcoteq with increased flexibility, more efficient use of personnel by maximizing hours scheduled, easier

management, and more attractive schedules for recruitment and retention purposes.

Results

A review of payroll data after a new schedule system was implemented showed that employees were working more hours for the same pay. There were significant annual labor savings at the Monterrey plant estimated from this increase in hours. . The new schedule will allow the Monterrey plant to efficiently add personnel as needed to support increased volumes now and in the future.

Additional benefits that were achieved from the new schedule included:

- The new night shift rotation provided better weekend sharing between the two night shifts.
- The new schedule system allows employees working on their off shift days to be an integral part of the working crew rather than just an extra body.
- Improved shift structure allows for cross training.
- Improved shift structure allows for overall reduction of workforce by area.
- More hours worked by the dayshift means less overall employees on staff, which minimizes the costs associated with turnover, recruiting, training, etc...

This change was difficult. Cultural and organizational hurdles slowed full implementation. Coleman Consulting continued work with local and corporate management to modify the schedule, train supervision, and implement procedures. But in the end, Elcoteq management had a schedule that provided flexibility at the lowest cost and Elcoteq employees had a schedule that met their desires.

Coleman Consulting is built around proven leaders from industry and academia with backgrounds in operations research, change implementation, organizational behavior, finance, economics, consulting and management of 24-hour operations. Our teams focus on implementing new methods for deploying capital and personnel that achieve significant cost savings and increased profits for our clients. Offices are located in the San Francisco and Dallas/Fort Worth areas.