

EL REMACHE case study

The existing system has worked for many years. How can we change now? Show your analysis, identify main causes of current difficulties and suggest possible solutions.

"I don't know what's wrong with the customers," says Ernesto Sordo, sales manager of ERCA's Industrial Division for the last twenty years. "In the past, the salesmen ("vendedores") were able to meet the quotas with no problem. Of course, there were minor delays, but everything could be arranged in the next visit. The new vendedores ask too many details!"

It is 8:00 A.M. and the sales force is ready to go and visit customers. Virgilio Rodriguez, assistant manager of El Remache C.A. (ERCA) Industrial Division, is eager to follow his action plan for the day. After all, he has just joined the company, and wants to demonstrate his capabilities. However, he is getting used to the idea that salesmen do not receive adequate information about their clients.

The Company

Dirk Gutschleg founded *El Remache C.A.* in 1948. Coming from Germany right after the war, he took with him to Mexico a very entrepreneurial view. He thought that fasteners, nuts and bolts (*constituants des fermetures éclair*) were little—but important—parts needed in many items, from shoes to pants, from engines to transformers.

At the beginning, he faced typical immigrants' problems such as language barriers and cultural misunderstandings. He found that employees tended to be unreliable and to operate behind his back. Because of this, he demanded that all of the company information pass through him. As time went by, business flourished, and Mr. Gutschleg gradually adopted a more passive role. Although knowledgeable about every ERCA's major detail, he had to delegate formal authority to his son, Markus Gutschleg, and to the current general manager, Rafael Marquez.

Currently, Mr. Gutschleg, Sr., foresees the aggregate performance of the four-company holding that includes ERCA. His son joined the company five years ago, after three years of experience with *Procter & Gamble* in Mexico. Rafael Marquez, instead, achieved his current status after working for years at El Remache's shop floor.

Like his predecessor, Mr. Marquez centralizes every piece of information. He reserves the right to approve any major decision, and says, "We share only the information that is necessary. In Mexico, you never know when a worker is going to leave you and go to the competition."

The top managers' familiarity with this system does not make Mr. Gutschleg, Sr., less worried about the future. Nowadays, employees tend to demand more information and participation in the decisional processes. In this sense, Markus Gutschleg is trying to implement the ideas learned at *Procter & Gamble*.

All things considered, ERCA's managers find it more difficult to run the business, even if it has been very profitable over the years. Dark clouds—among them, the incoming North American Free Trade Agreement (NAFTA)—are threatening ERCA's nearly monopolistic role in Mexico's marketplace.

Customers and Products

ERCA divides its clients, according to the volume of their purchases, into three categories: A, B, and C. Since most products are commodities—and clients can easily buy them somewhere else—customer service is an important aspect of the business, in terms of both responsiveness and product quality.

Product availability, delivery date, quotation process, and solving-problem capability greatly affect the firm's profile in the marketplace. Despite this, at ERCA a simple order quotation can require a couple of weeks, and the overall responding process takes longer. In contrast, the competition offers quicker delivery times and sometimes better prices, although for lower quality segments (ERCA enjoys the quality leadership among Mexican fastener manufacturers).

Delays on promised delivery times represent a serious problem. Even standard products are often unavailable. To make things worse, *vendedores* (*vendeurs*) make false promises of immediate product availability. However, Javier Gonzalez—product manager of the Industrial Division for the last fifteen years—stresses that "not all clients are unsatisfied with the service we offer. We have been in this industry for a long time and customers know our reputation." For special articles, ERCA's lead times range from four to six weeks, versus the competitors' three to four weeks. ERCA delivers standard articles in one day and not-in-stock articles in fifteen days. Regarding new special products, an order quotation takes up to two weeks. Similar problems affect sample deliveries. For example, a client asked *for* some samples and received them five weeks later.

"Many problems have to do with the attention that each sales representative gives to his major clients. If he, in conjunction with the client, is able to plan ahead (two-three months), delivery problems become very rare," says Enrique Jardía, Production Manager. Mr. Jardía has been with the company for over thirty years. Originally a machine's assistant at the mill center, he has had the opportunity to see, from that particular angle, the evolution of the company. Sales personnel compensation includes a base salary and, in most cases, a sales-based commission. *Vendedores'* base salary starts at 700,000 old pesos plus a 1.75% commission for delivery products (\$1 = 3,000 old pesos).

Customers often find that a typical order may require filling out up to nineteen forms. Three secretaries receive customer calls, and they cannot usually reach the *vendedores* who are usually out visiting clients. Therefore, the secretaries only take orders, listen to complaints and, for requests of technical assistance, try to reach some technical staff members.

Although Mr. Gutschleg Jr. personally possesses a historical perspective of the company's performance, ERCA does not have a formal forecast system. Given the numerous products sold, including many custom orders, managers find it difficult to monitor available historical data and foresee future sales.

Competition

In Mexico, El Remache enjoys the market leadership in its field. However, two main competition forces threaten its position. On one hand, many small Mexican companies aim to gain market share. Often founded by former ERCA employees, these companies focus on high-quantity production of few, selected products and do not have access to international purchasing of high-quality raw material. On the other hand, new potential U.S. competitors are approaching Mexico's market. This process escalated after the less protectionist policy adopted by the Mexican government in 1992, as a move toward NAFTA.

The U.S. competitors are both in the high-volume/low-cost and specialized/high-cost niches. The low-cost U.S. competitors sell at \$3.30 per thousand units sold, versus ERCA's \$6.60.

The high-cost U.S. competitors sell at a much higher price (\$14 per thousand units sold). However, the threat of competition works both ways: Mexican companies now find it more profitable than before to sell into the North American market.

Production Process

ERCA manufactures fasteners from three different raw materials. The fasteners also vary in size, color, and similar features. The different steps of the fastener manufacturing process depend upon the type of product needed.

Materia Prima (raw material)

The raw material inventory consists of eighteen different diameters of steel and four different diameters of tin wire. In addition, ERCA has in stock aluminum, whereas it orders copper only when needed. ERCA receives raw material deliveries twice a month, and uses up to 62 tons of it per month. Deliveries from the U.K. and Japan take up to twelve weeks, compared to six weeks from the U.S. Nevertheless, ERCA currently prefers to buy from the Japanese, who are offering better prices as a response to temporary protectionist measures taken by the U.S. government against them.

Mexican raw material's alternative sources, although low in cost, suffer from low quality and unreliable delivery capability.

Primer Proceso (first process)

To manufacture fasteners, ERCA uses forty machines that deliver the rivets by performing only one production step. Each of these machines can produce only one fastener size at a given time, and can be reset to a different diameter if needed. The machine supervisors on the production floor decide upon job execution schedules. They give higher priority to urgent orders and try to minimize the machines' setup times.

Cafeteras (coffee makers : machines able to do several tasks)

The cafeteras—which look like coffee makers—represent an old and outdated production line, still maintained because dedicated to specific articles that would be hard to manufacture in other ways. The cafeteras are bulky, but also highly flexible. New machines to substitute the cafeteras would cost more and generate longer production times, because of tooling requirements. Since many fashion articles require rapid deliveries of the cafeteras' manufactures, these machines maintain a fundamental role within ERCA.

Lavadoras (washing machines)

After the primer proceso, the products—at that point covered with oil—must pass through the washing stations. Successive operations—such as quality control or second processes—require clean products and have to be interrupted if a dirty item reaches them. Unfortunately, these interruptions happen fairly often, and, in addition, only two workers on a single shift currently operate the lavadoras.

Currently, about three tons of work-in-progress (WIP) are waiting in front of the washing stations. Although the latter should take only ten minutes to wash a single 90 Kg box, in reality they end up processing each day much less than the expected 4320 Kg.

Revision (quality control)

All of the products must pass through quality control. A white paper order, inserted within the box, indicates that the control personnel took only visual samples from the box. Conversely, a red paper order shows that the inspection covered all of the products in the box (this procedure applies only to high value items for important customers). Finally, urgent orders require an additional orange paper. Currently, the revision's WIP is approximately one equivalent working day.

Segundos Procesos (second processes)

The product achieves its final shape at the end of the second processes, which are also responsible for most of the defectives. These final processes include: (1) Barrenado y Roscado (boring and threading), (2) Roto Finish (deburring, tumbling), (3) Ranuradoras and Roladoras (guiding, bending, and squeezing), and (4) Galvanoplastia (plating).

In the first process the machines further refine the fasteners. Currently, barrenado y roscado shows a four to five equivalent working day WIP.

Not all of the fasteners require the second process, but only the ones whose heads need polishing before entering the galvanoplastia.

The third process suffers from four major problems. First, it would require more qualified personnel. Second, its requirement variability would benefit from a higher volume. Third, any one of the machines, in turns, breaks down. Finally, the process does not have a proper balance among its different capacities. These problems lead to a Ranuradoras and Roladoras' WIP of six weeks, and make this operation one of the major bottlenecks of the whole manufacturing process.

For almost 90% of the products, plating represents the last step. Currently, it works twenty-four hours a day, in two shifts, with two weeks of WIP. In addition, ERCA has to subcontract part of the work. After the plating, operators have the products washed once again and subjected to a final quality control.

Order Processing

ERCA sells its products through two distribution channels: a small internal shop—the *tiendita*—and ERCA's sales representatives. Small customers go to ERCA's plant, whereas important customers are visited by ERCA's vendedores. The *tiendita* sells only in-stock, standard products. The customers come, ask for a specific article, or bring a sample of it. The clerk checks whether the article belongs to ERCA's standard inventory and, in the affirmative case, consults the stock manager. The latter verifies whether any other client has already reserved that particular item, and, in the negative case, the clerk completes the transaction with the clients. In addition, if the clerk does not find an article in ERCA's standard inventory, he knows enough about the product to suggest an alternative article currently in stock.

Apparently complex, this procedure actually permits ERCA to reduce the number of sale steps, because its personnel does not have to exchange paperwork. In addition, personal selling—centered on the expertise of the clerk Antonio Reyes—allows ERCA to conserve a stronger link with the client. Mr. Reyes spends 10-15 minutes with each client. By using sample measurement tools and measurement conversion tables, Mr. Reyes helps the customer and personalizes the selling process. The customer receives the right fastener, in a short time. Opposite characteristics portray ERCA sales representatives' effort. The vendedores visit the clients, hope to generate orders, and in the process offer very little assistance to the customers, who most of the time already know what they want. In addition, there are no sales policies or

incentives to emphasize the sale of standard over special articles. Sometimes vendedores visit clients because they happened to drive close to the customers' sites, and have to stay outside ERCA's offices until 4:00 P.M. anyway.

The unwritten requirement that vendedores must visit clients for at least six hours a day creates paradoxical situations. Vendedores kill extra time waiting in Mexico City's traffic jam, rather than offer a better use of themselves back at the plant. They visit customers of categories A and B up to four times a month.

In addition, vendedores often approach their job in a disorganized way. For instance, they generally do not schedule their daily visits to the client's representatives (*compradores*). This bad habit results in undesired waits and missed meetings. The customers' assignments to different vendedores do not follow logical patterns, and several salesmen may end up serving the same area of Mexico City.

Since they do not carry an updated price list, each time the vendedores have to recalculate price estimates in front of their clients. The absence of a price list derives from a poor connection between ERCA's sales and manufacturing personnel. Another negative factor—the absence of a forecast system—prevents ERCA from predicting future demand. This drawback forces ERCA to increase prices every six months of some percentage—say, 5 to 10%—regardless of the actual behavior of the company in the marketplace. Aware of this procedure, ERCA's big customers simply pre-order fasteners in quantities sufficient to cover their future six-month needs. Since ERCA cannot deliver this bulk of products quickly, the customers end up receiving the fasteners approximately when needed, but at a discounted price.

Technically, the order processing takes an average of one week. The vendedores give immediately a price estimate, but cannot furnish a reliable delivery date. As mentioned before, even if they do, they end up often misleading the clients. Therefore, they cannot require the clients to sign the orders, and when ERCA finally delivers the fasteners, the clients can return the packages with no penalty. This practice creates relatively big stocks of undelivered orders, not to mention its fostering mutual mistrust between ERCA and clients.

4 Delivery System

ERCA's delivery system exemplifies the nature of the main criticisms to the firm. Exhibit 1 shows the Pareto diagram of the problems experienced in ERCA's daily deliveries (*entregas*) of products, in May-June 1992:

- Lack of time ("*falta de tiempo*") on the part of the truck drivers represented the number one reason for delivery problems, and accounted for 41% of the missing deliveries.
- "*No es material solicitado*" (11%): the customer claimed not having requested the material. Since customers do not sign the original order, they can refuse the delivery without incurring any penalties.
- "*No quiso recibir cliente*" (11%): at delivery, nobody was waiting for the truck because it arrived on the wrong day.
- "*No hubo cheque*" (10%): at delivery, the client did not have the check to pay for the delivery. In ERCA's business, firms do not commonly use accounts receivable.
- "*Pedido duplicado*" (7%): duplicated order (i.e., ERCA had already delivered that particular order to that client).
- "*Descompuso camioneta*" (5%): the truck broke down.
- "*No encontro direction*" (3%): the truck driver could not find the right address.
- "*Faltan datos en factura*" (3%): ERCA's administration did not properly fill out the invoice.
- "*Horario comida cliente*" (2%): the truck driver arrived during lunch time; in ERCA's business, companies do not receive products all day long.
- "*No hay pedido*" (2%): at delivery, both the client and the truck driver realize that the former never requested that particular order.

The lack of coordination between *vendedores* and delivery personnel is shown in Exhibit 2. In this case, the diagram shows the reasons for rejected products in the form of credit notes. In the first place, with 46%, one finds the administrative refusal (*rechazo administrativo*), which represents the sum of all the effects considered in Exhibit 1. Other reasons include:

- *Diferencia en precio* (20%): difference in price with respect to the original order
- *Falta de material* (10%); lack of raw material
- *Rechazo tecnico* (4%): technical problems, such as wrong tolerances
- *Administrativo varies* (20%); general administrative problems

The Future .

Mr. Gutschleg, *ST.*, is concerned about the future. ERCA will soon face NAFTA. This situation is not like the one he faced in 1948. Times have changed, and the company has enjoyed many good years.

He realized that being young and aggressive, the new ' salesmen, often find themselves trapped in a system that excessively limits their responsibilities and therefore penalizes their possibility to grow. The old management maintains a vertical information and decision-making structure that leaves little space to salesmen's entrepreneurship. This results in a general lack of coordination between marketing— geared toward new perspectives—and operation—still i chored to the old ones.

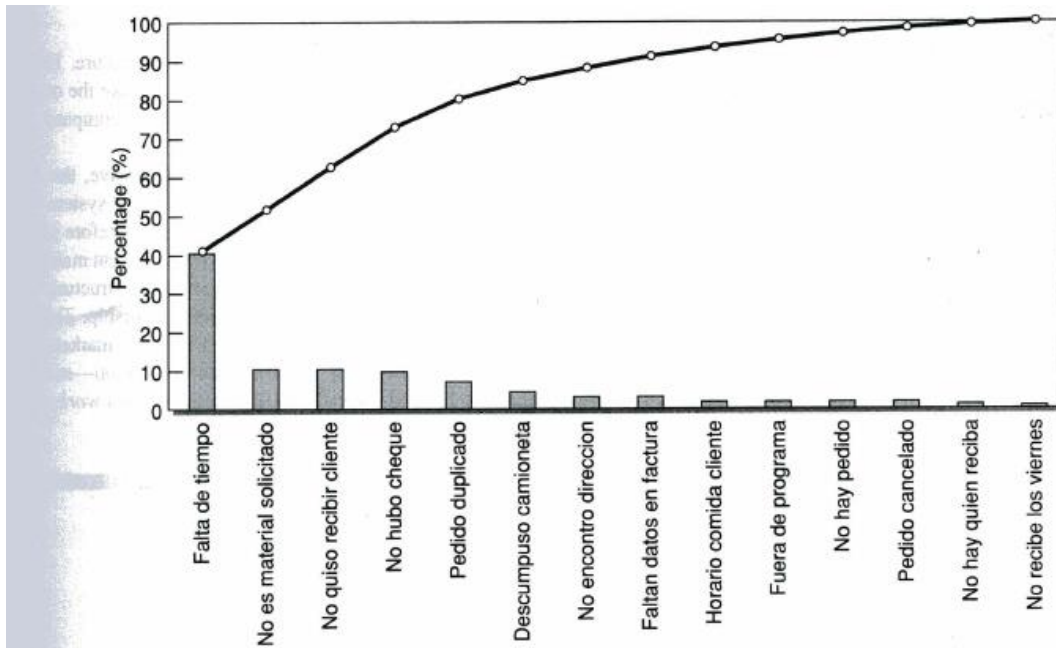


Exhibit 1 Diagrama de Pareto Problema en las Entregas Diarias Mayo-Junio 1992

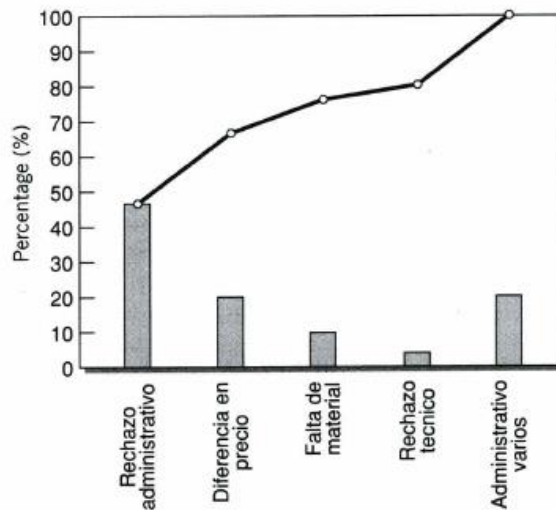


Exhibit 2 Diagrama de Pareto Notas de Credito Mayo-Junio 1992

- “*Pedido cancelado*” (1.5%): canceled order.
- “*No hay quien reciba*” (1%): at delivery, nobody was waiting for the truck, even if the latter came on the right day.
- “*No recibe los viernes*” (0.5%): The truck driver tried to deliver on Fridays to companies that do not receive products on such a day.