

KARLEE

2000 Application Summary



Organizational Overview

KARLEE is a contract manufacturer of precision sheet metal and machined components for the telecommunications, semi-conductor and medical equipment industries. Since incorporation in 1977 as a producer of machined parts, our commitment to exceeding customer expectations and building quality into the product has set us apart. During the early 1980s, we expanded the business to include sheet metal fabrication. Electrical-mechanical assembly and finishing processes (plating, painting and silkscreen) were added to respond to our customers' needs.

KARLEE is certified as a woman-owned company. Jo Ann Brumit, CEO and Chairman, actively provides vision and business knowledge to propel KARLEE into global markets, allowing us to become a world class, full service manufacturing services company.

Today KARLEE is a world-class manufacturer providing a full range of manufacturing services to our customers. Figure 0.1 shows the growth that KARLEE has achieved over the last 21 years.

Figure 0.1 KARLEE Growth 1979 to 2000

	1979	2000
Sales	\$1 Million	\$79.4 Million
Facilities	3,000 Sq. Ft.	210,000 Sq. Ft.
Team Members	13	550

Products and Services

KARLEE provides a vertically integrated range of services that support our customers from initial component design to a finished, assembled product. Our services include:

- Advanced design engineering support
- Prototype production
- Manufacture and assembly of precision machined and sheet metal fabricated products
- Product finishing (painting, silk screening, plating)
- Value added assembly integration (cabling, power supply and back plane installation, and electrical testing).

KARLEE is located in Garland, Texas. The components that KARLEE produces are delivered almost exclusively to customers located within Texas. However, these components can be found worldwide as KARLEE's customers are global leaders in their respective markets.

Organizational Culture

The original values of KARLEE have guided the company successfully over many years. These core values are based on Christian ethics that encourage honesty, trust, and fellowship among team members. Our core values are:

- Team member growth and development*
- Encouragement and recognition*
- A clean and safe environment*
- Mutual trust, honesty and respect*
- Social responsibilities.*

In living our core values, we strive to maintain a balance between the needs of our customers, our suppliers, our team members, the stockholders, and the community. KARLEE promotes a family atmosphere within the company which extends outward to the community in our support of local charities and educational institutions. Our mission is "to exceed stakeholders' expectations.", emphasizing the importance of all of our stakeholders. Figure 0.2 shows the expectations of each of our stakeholders.

KARLEE's team structure is designed to support our core values and promote leadership and customer focus throughout the company. The entire work force is organized into operational, administrative, and support teams. The Senior Executive Leader team provides strategic focus, communicates expectations, and oversees company performance to ensure we are meeting our goals. The KARLEE Steering Committee focuses on operational performance and manages the day-to-day business.

Our vision is "To be a continuing improving leader in performance excellence.". High performance and customer focus are fostered by encouraging open communications between teams, team participation in setting goals, and empowering teams to manage and improve their processes. Our team culture is emphasized by using the terms "team members" instead of employees, "leaders" instead of supervisors.

0.2 KARLEE Stakeholder Expectations

Customers' Expectations
Committed Partnership
Proactive Cost Management
Responsiveness / Flexibility
Business Solutions
Long-Term Vision & Growth
Performance Excellence
Quality
Delivery
Service
Team Member Expectations
Job Ownership
Job Security
Benefits / Compensation
Growth & Development
Safe and Clean Environment
Recognition
Supplier Expectations
Partnership
Loyalty
Responsive Customer
Owners' Expectations
Return on Investment
Profit
Growth
Community Expectations
Responsible Citizen
Develop Future Workforce
Involvement

Markets and Customers

A fundamental part of our strategy is to develop and maintain long-term partnerships with a few primary customers who are global leaders in their own markets. This strategy allows us to deliver the level of dedicated service that our customers demand and at the same time manage the growth of a small company in a controlled fashion. Over several years, we have identified the industries and the customers that would be our best strategic partners.

Today, KARLEE is a supplier of choice and strategic partner to four Fortune 500 companies, supporting three high-tech industries. Our principal markets are:

- **Medical Market**
Frames and components for medical instrumentation such as blood analyzers.
- **Semiconductor Industry**
Key components of equipment to produce semiconductor wafers.
- **Telecommunications**
Card cages, internal components for switching devices, and complete telecommunications enclosures.

Team Members

KARLEE has 550 team members who work three shifts:

Workforce Distribution

- 425 team members in manufacturing
- 118 team members in administrative/support
- 7 senior executive leaders
- 90% are non-exempt (hourly)
- 10% are exempt (salary)

The diversity of our team members reflects the ethnic mix of the Garland area. Our team members also have varying levels of education and English language skills. The challenges of such diversity are met by providing a systematic training and communication system that promotes continuous learning and skill development. Tuition reimbursement programs, in-house training, external classes, procedures in both English and Spanish, and translators are provided to ensure development and participation of all team members.

The demographics of KARLEE team members are:

Language and Education Demographics

- 79.4% speak English as a first language
- 20.6% speak Spanish with minimal English
- 61% have up to a high school education
- 16% have some college education
- 4% have a college degree

Ethnic Demographics

- 7.2% Asian
- 11.8% Black
- 46.7% Hispanic
- 34.3 % White

Facilities, Equipment and Technology

KARLEE is housed in two facilities. The primary 125,000 square feet facility is designed to support our core manufacturing processes of machining and sheet metal fabrication. This facility is dedicated to producing products for a single customer or a set of like parts for different customers. Administrative and support processes are also located in this building. A separate 85,000 square feet facility supports the mechanical assembly, integration, and finishing processes (painting and silk-screening). This facility also supports shipping/receiving, the KanBan pull system and materials replenishment.

Our equipment and technologies include:

Manufacturing

- Robotic CNC Punch Presses and Brakes
- CNC Press Brakes
- Pulsar Laser Cutting Equipment
- Robotic Welding Equipment
- High Speed CNC Machining Centers
- CNC Lathes
- Precision Cutting Saws and Grinders
- Powder Coat Paint Line
- Silk-Screening and Imaging
- Iron/Phosphate Wash System

Support Technologies

- CAD Systems
- DNC Network System
- CAD/CAM Programming Systems
- Graphics Workstations
- EDI Transfer System
- eManufacturing (Integrated Business Process Software)

The machining and sheet metal fabrication industries are capital-intensive and require large investments in order to meet capacity requirements or add new processes. KARLEE is noted for innovating with the latest, state-of-the-art equipment. Our equipment assets are currently valued at over \$26.2 million.

Regulatory Environment

KARLEE is proactive in monitoring and regulating the amount and types of VOC's (Volatile Organic Compounds) and coolants that are used in our manufacturing processes. All scrap metals and coolants are recycled, and control and disposal of all hazardous wastes exceed EPA guidelines. In our

efforts to go beyond this level of compliance, we are transitioning from wet to powder paint processes to eliminate VOC's from paint processes. We use an iron/phosphate wash system to reduce zinc/cyanide usage.

Customer & Market Requirements

The foremost requirement of each of our customers is that we maintain preferred supplier status. In the early 90's this meant meeting requirements for delivery, quality and cost. These requirements include:

- PPM goals for quality
- On-time delivery goals
- JIT manufacturing
- KanBan support
- Engineering support
- Quick turnaround on prototypes
- Quick response time for Requests for Quotes

These factors remain important to customer satisfaction and we continue to maintain high performance in all of our manufacturing operations. Our lean manufacturing Hoshin for FY2000 is an example of our commitment to continuous improvement in these areas.

However, our shift towards more collaborative, committed partnerships has required that we be much more proactive in anticipating and responding to our customers' current and changing needs. Our listening and learning approaches and our continual contact with customers at all levels of our company enable us to gather timely information about our customers' plans and requirements.

We address changes in customer requirements by being responsive and flexible to schedule changes, adjusting to customer growth requirements, and integrating new production processes to meet new requirements. We have responded to new customer and market requirements by adding many processes and technologies in the last few years.

Supplier & Partnering Relationships

KARLEE selects and develops suppliers that share our commitment to customer satisfaction to ensure that we have the materials and services needed to support our customers. KARLEE has 137 approved suppliers who provide materials for production and delivery of products. The top 10 key suppliers (metal and hardware) represent 63% of our purchases based on dollar volume. Thirty-three suppliers for about 150 purchased products are specified by our customers as single-source or are pre-qualified.

Competitive Situation

KARLEE has eleven local competitors, seven that provide either sheet metal or machining services and four component assembly shops. These machining/sheet metal competitors are small companies (200 employees or less) that typically perform a single process. KARLEE has gained competitive leadership over these local companies (and in the industry) through three key strategies:

Vertically Integrated Services

Few of the local competitors provide a total systems approach including prototype design support, sheet metal and machining, finishing, value added assembly, testing, and dedicated customer support. KARLEE has gained competitive leadership by providing vertically integrated services and support from design conception through production.

Strategic Partnerships in Diverse Industries

Most of our competitors are one or two-customer shops. They face the uncertainty of relying on the success and growth of these customers. KARLEE has diversified its customer base to include four primary customers across three industries. We have developed strategic partnerships with each of these customers to such an extent that we are now part of their design and production processes.

Team Culture

Few of our competitors have developed a team culture. Most contract manufacturers in this industry do not emphasize teamwork, provide extensive training and recognition programs, empower employees, or establish depth in leadership. KARLEE recognizes that our team members' growth and sense of ownership for our performance is the foundation of our continued success.

Business Directions

The sales growth rate from 1994 through 2000 has averaged over 35% per year. To manage this rapid growth, KARLEE has become a learning organization. We evaluate processes, equipment, and team member resource requirements during strategic planning. We attend trade shows and conferences to evaluate and upgrade equipment and processes. Examples of recent improvements include the addition of robotic brakes and welding equipment, upgrades in CAD/CAM software to support customer design requirements, and the replacement of our business computer system.

Continuous learning and improvement extend to all areas of the company. During the last three years we have introduced a new method for deploying strategies called "Hoshin". Hoshin is a Japanese term meaning the few critical things a company must do to achieve their vision and mission. The Hoshin process was implemented through partnership with one of our primary customers and is a method to focus and align resources.

Our FY2000 Hoshin is to optimize our use of lean manufacturing techniques. Lean manufacturing is a collection of techniques and approaches to improve efficiency and productivity, and reduce delivery times and costs. KARLEE already has most of the elements of lean manufacturing in place. The FY2000 Hoshin is to help us move to the next level of performance by reviewing and optimizing our processes.

There is a trend in the industries we serve (and in most high tech industries) toward mergers and acquisitions. We recognize, that with a small customer base, this trend represents a high level of risk for KARLEE. We address this risk through contingency plans for quickly acquiring new customers or expanding business with existing customers. Throughout the year, we research industry trends, assess customer plans and performance, and identify potential new partners. During strategic planning, the SELs re-evaluate the relationship with each of our strategic partners and update our contingency plans.

1 Leadership

Organizational Leadership

KARLEE’s leadership system is a closed-loop approach that starts with strategic planning and deployment, and continues throughout the year to ensure that we achieve our goals (Figure 1.1). The SELs initiate the process each year with strategic planning. The SELs review and refine our mission, vision and values. They set the strategic direction of the company through key business drivers, objectives and goals. KSC members (SELs and MTLs) lead deployment of objectives and goals to all levels of the company. Each team has performance targets and improvement projects aligned with KARLEE’s goals to ensure a common focus across the company.

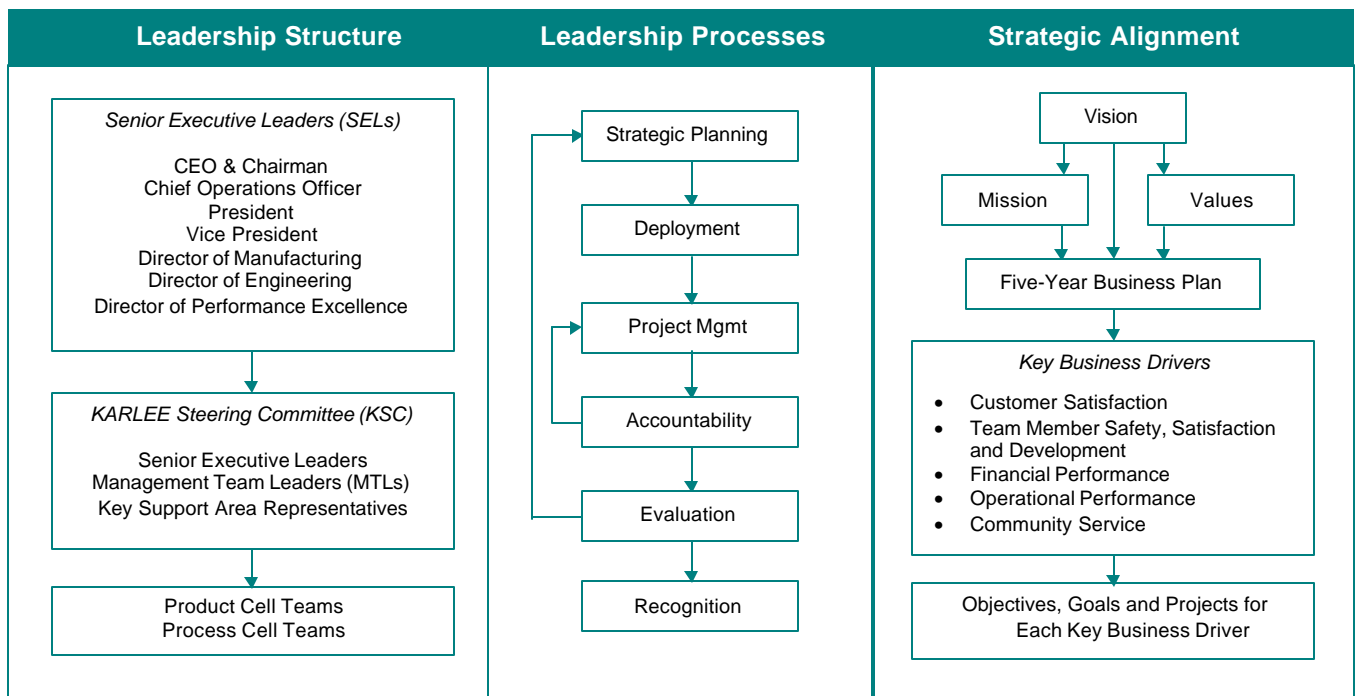
The SEL and KSC teams review performance, evaluate the results of improvement initiatives, and recognize achievements as part of their weekly meetings. During the year, they refine targets and plans as needed to achieve strategic plans. Year-end results are a key input to the next year’s strategic planning sessions.

One of our core strengths is the ability to maintain a balance in meeting the needs of all our key stakeholders (customers, team members, owners, suppliers, and the community). The SELs accomplish this by frequently listening to stakeholders’ needs, identifying future opportunities that will benefit multiple stakeholders, and developing strategic plans and goals to make those opportunities reality. This balance is maintained throughout the company by aligning all strategies, objectives, and goals with the five key business drivers.

The senior executives communicate and reinforce values and expectations through performance reviews, participation in improvement or strategic projects, regular interactions with customers and team members, and recognition of team member achievements.

As members of the KSC, the Management Team Leaders (MTLs) continue the process of communicating, and reinforcing values and expectations down to the team member level. As functional and departmental managers, the KSC works as a team to manage daily operations, monitor progress of improvement initiatives, and provide support to ensure that performance targets are met.

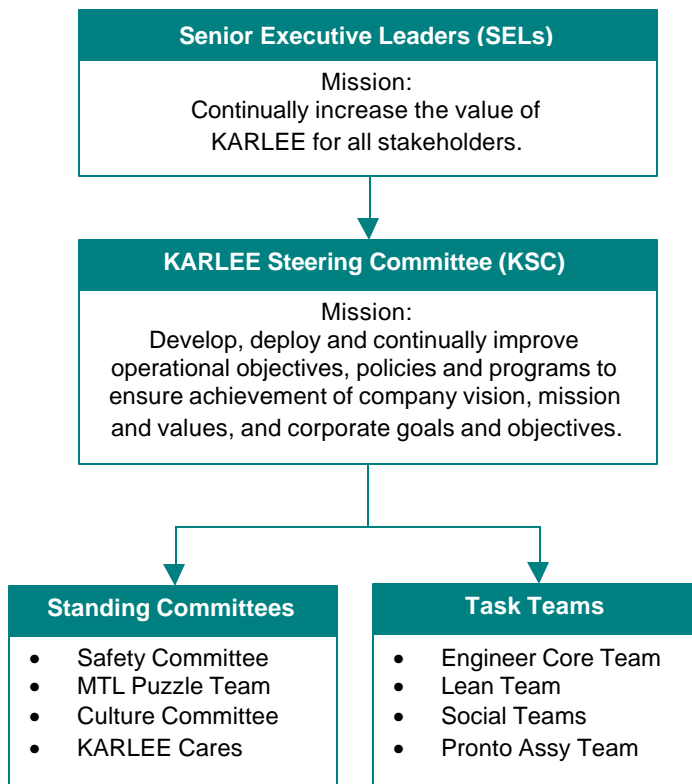
Figure 1. 1 Leadership System



KARLEE’s Mission, Vision and Values provide the foundation of our environment of empowerment, innovation and learning. We encourage team members at all levels to learn and contribute. The entire work force is organized into operational, administrative, and support teams to encourage decision making at the individual and team levels. Each team is led by a Management Team Leader (MTL) or an Operational Team Leader (OTL). OTLs are charged with daily coaching and mentoring of team members while balancing customer needs such as quality and delivery, with corporate needs such as lowering scrap and rework. Team members are empowered to take initiative and contribute in many ways, including setting performance targets and monitoring and improving their processes.

We encourage open communications and shared learning between all teams through cross-functional teams and regular interactions with SEL and KSC members. We adopted the cross-functional team concept in 1990. Over the years, we have realigned our committees and teams to improve performance based on feedback from team members. Today, we have four permanent committees and multiple task teams to perform special projects as shown in Figure 1.2

Figure 1.2 KARLEE's Team Structure



Identifying and cultivating new business opportunities are primarily the responsibility of the SELs and the Customer Service team members. KARLEE has a strategically small customer base, allowing the senior leaders to maintain direct involvement with each customer on a regular basis. The senior leaders seek future opportunities for the organization through a variety of methods:

- Industry publications, conferences and seminars.
- Customers’ quarterly and annual planning sessions.
- Meeting with key customers at least twice a month.
- Bi-monthly and annual customer surveys.
- Weekly “Customer Status Summary” reports.

The SELs/KSC gather information to identify future opportunities for team members through daily interaction, formal surveys, and reviews:

- Annual team member surveys.
- Team members identify their top three concerns on the satisfaction survey.
- Training and development needs identified during annual team member reviews.
- Quarterly KSC meetings that are open to team members to ask questions and voice concerns.
- Quarterly roundtable, with the CEO, COO and President, where members from across the company discuss team member issues.
- Team member suggestion program for team members to make suggestions and ask questions.

The Senior Executive Leaders establish the review schedule for company and work unit performance results during the strategic planning process. The SELs meet once a week to review overall company performance and ensure alignment with directions and plans. The KSC meets weekly to review performance measures, progress of improvement projects, and operational issues. The KSC reviews measures and projects on a rotating schedule as shown in Figure 1.3. Review findings are translated into priorities based on our key strategies. Two of our key strategies, exceeding customer requirements and rapid response to changing customer needs, always receive top priority. Our second priority is our Hoshin projects, which concentrate on the key performance areas we must improve to sustain our competitive position. Other improvements or opportunities are prioritized based on benefits of the project and resource availability. Projects may be assigned at this time or deferred to the next strategic planning cycle.

Figure 1. 3 KARLEE Steering Committee Review Schedule

Key Business Driver	Bi-Monthly Reviews	Quarterly Reviews	Annual Reviews
Customer Satisfaction	Customer Satisfaction: Quality, Delivery, Returns	Verbal Customer Survey Results	Customer Survey Results
Operational Performance	Capacity Report Hoshin Update Benchmarking Updates and Needs	Update / Project Strategy Department Goals, Objectives, Project Status Puzzle Team Update Corporate Objectives Financial Performance	Quality Systems Review Supplier Performance Results Supplier Survey Results
Team Member Safety, Satisfaction and Development	Team Member of the Month High Performance Team of the Month	Training Update Culture Advisory Committee Safety Committee Social Activities Open Meeting	Team Member Survey Results Set Holidays for New Year Scholarship Program
Community Service		Charitable Contributions Community Service Hours	

KARLEE utilizes input from seven sources to improve leadership effectiveness and management skills:

- Annual team member surveys include questions regarding the leadership effectiveness.
- Senior executives perform peer reviews annually.
- Senior executives perform self-assessments annually.
- The SELs perform an assessment of the KSC during strategic planning.
- Senior executives assess organizational leadership against the MBNQA criteria.
- An annual Strategic Planning questionnaire includes questions about the effectiveness of KARLEE's mission, vision and values.
- Leadership and quality consultants evaluate KARLEE's leadership effectiveness.

The SELs evaluate this information concerning organizational leadership during strategic planning to identify improvements to the leadership system. The evaluations have resulted in the addition of management and leadership classes, creation of a president position (for leadership in absence of the CEO and COO), and the formation of the SEL team. KARLEE has recently implemented a formal leadership development program to help leaders and key contributors better develop their leadership skills.

Public Responsibility and Citizenship

The community is one of our key stakeholders. KARLEE solicits input and listens to public concerns and needs as a part of its responsibility to its stakeholders and to overall corporate growth. KARLEE has a strong commitment to foster quality education from elementary school to college. The senior executives view this as an important investment in the next generation of team members for KARLEE and for other companies in the area.

Our processes of machining, sheet metal fabrication, assembly, painting, powder coat, and silk-screen are regulated by OSHA, EPA, Texas Air Control Board, and ADA requirements. The end products, metal components, do not pose inherent environment risks. Material Safety Data Sheets (MSDS) are posted in the department areas for team member review.

We recycle metal from the machining and sheet metal fabrication processes. Coolants used in the machining process are also recycled. The Volatile Organic Compounds (VOC) from our paint process are well under regulatory requirements. We use environmentally safe paint guns. In 1997, we began conversion from wet paint to powder coating to further reduce environmental concerns.

The KSC receives information on legal and regulatory issues from the Safety Committee, Team Resources, and Senior leaders through their contacts with the community and industry leaders. The three groups gather data regarding regulatory and legal requirements associated with our industry and report issues to the KSC. The KSC assesses needs and assigns actions to the appropriate group to ensure adherence to all requirements.

During strategic planning, the SEL and KSC teams address KARLEE’s public responsibilities and allocate resources to achieve total compliance. Occasionally this has meant increasing the Safety Committee and Team Resources budgets to maintain compliance with regulatory agencies. The Cultural Advisory Committee was established after benchmarking with Southwest Airlines. The committee assesses our processes, programs and policies and recommends changes to Team Resources that would help us better fulfill our values, vision and mission. One focus of the committee is to monitor/anticipate public concerns with our current processes.

KARLEE communicates our commitment to high standards of legal and ethical conduct through our values statement. The statement is posted throughout the organization, listed in the team member handbook, introduced in team member orientation, and reviewed with team members by senior executives. We measure our performance to these values through annual customer and team member surveys, safety committee recommendations, exit interviews, management reviews, senior executive peer reviews, and team member reviews.

KARLEE is committed to making a positive contribution to our customers, our team members, local education systems, and the community. Our community service liaison works with local schools and community organizations to identify and report community needs to the SELs/KSC. Senior executives also learn of community needs through their active participation on many civic and school boards.

Senior leadership evaluates our community support program during the annual strategic planning process. The community service guideline is evaluated to determine areas of emphasis for the coming year and establish targets for community service support. The SELs establish an annual budget to support our community involvement. The SELs lead KARLEE in providing financial and personal support for community service activities. All team members are encouraged to participate in these community

activities. Opportunities for participation are discussed in the Leaders meetings and communicated to members by the MTLs. Charitable contributions and community service hours are reported to the KSC on a quarterly basis.

Our current focus for community support is on education, business excellence, and health and welfare. Figure 1.4 shows just a few examples of our commitment and participation.

Figure 1.4 Support of Key Communities

Education Support
<ul style="list-style-type: none"> • Many of our team members tutor Math and English at a local elementary school. • Initiated and sponsors the Koalaty Kid Program and the Campus Improvement Team at Bradfield Elementary School in Garland. • Host field trips by elementary and high schools to emphasize basic skill sets. <p>KARLEE, Richland College and the Garland Independent School District (GISD) are jointly involved in a school-to-career initiative to:</p> <ul style="list-style-type: none"> • Expand the awareness of GISD middle school students of math and science principles. Tours for 1,440 students will occur at KARLEE this year. • Provide students at all GISD middle schools an opportunity to learn how to use math and science principles for manufacturing. • Develop an ongoing program for GISD math, science, and technology teachers.
Business Excellence Support
<ul style="list-style-type: none"> • CEO, President and Vice President are members of the advisory board at Richland Community College. • President is a member of the Garland Chamber of Commerce Board of Directors. • CEO has served as the chairperson for the City of Garland Quality Board. • The Vice President is an officer for the Dallas ASQ chapter. • CEO is a member of the Board of Directors for the Quality Texas Foundation
Health and Welfare Support
<ul style="list-style-type: none"> • Support the Buckner Baptist Children’s Home through toy drives and financial donations. • Adopt needy families from the Garland community each year.

2 Strategic Planning

Strategy Development

Figure 2.1 shows the strategic planning process as the driving element of our leadership system. The goal of strategic planning is to achieve our mission (*exceed stakeholders' expectations*) without losing sight of our vision (*be a continually improving leader in performance excellence*).

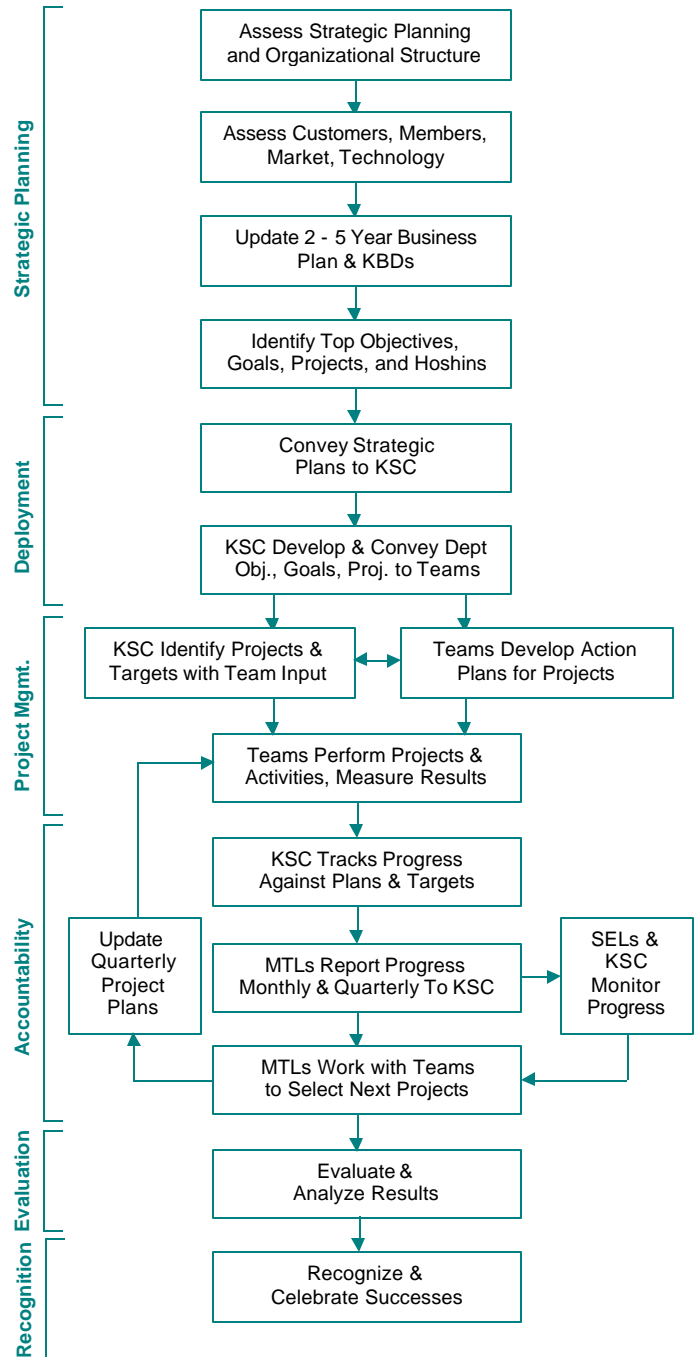
The STRATEGIC PLANNING phase begins in early summer and is completed by the beginning of the new fiscal year in October. The Vice President provides each SEL member with information to prepare for the planning sessions:

- Customer Satisfaction Survey Results
- Team Member Opinion Survey Results
- Supplier Performance and Satisfaction Survey Results
- KSC Strategic Planning Questionnaire Results
- Competitive and Comparative Benchmarking Reports
- Sales and Operations Plan
- Industry Market Trends and Economic Forecasts
- Environmental Impact Data
- Performance to Corporate Objectives
- Results of Hoshin Projects

Each member of the SEL team reviews this information and compiles department specific data for the planning meetings. KSC members complete a Strategic Planning Questionnaire to assess how well KARLEE's mission, vision, values and key business drivers define, communicate, and support management expectations. The SELs use the Planning Questionnaire results, along with the other feedback to assess the KARLEE leadership system. Our leadership structures are reviewed to assure that the purposes of the SEL and KSC teams are translated into clearly defined roles and responsibilities. The strategic planning and deployment processes are evaluated and refined to ensure they meet the needs of all stakeholders. The SELs also evaluate and refine KARLEE's vision, mission, and values.

The formal planning sessions begin with a strategic assessment. The SELs assess long-term goals, financial targets, economic forecasts, local employment forecasts, customer and member requirements, and industry trends to update the company's long-term business plan. This five year plan provides a framework within which to develop short-term objectives, goals, and plans.

Figure 2.1 KARLEE Leadership Process



The SELs assess company and market information to identify strengths and weaknesses, and opportunities and threats. Based on this analysis, key business drivers are established along with specific measurable objectives. The SELs evaluate customer requirements, past performance, and current resources to set the goals and targets for the coming year.

Customer Requirements and Expectations

Long-term partnerships with our primary customers comprise 95% of our sales. SEL and KSC members address three primary issues related to customer requirements and expectations:

- Exceeding customer expectations
- Responding to changing customer demands
- Evaluating existing and prospective customers

We compare our customer requirements with competitive information to determine strategies and goals for exceeding customer expectations for pricing, capacity, process capability, and cycle time reductions. Pricing factors are analyzed to determine cost reduction targets for manufacturing operations.

Our ability to rapidly respond to changes in customer demands is key to maintaining a leadership position. Our focus is to rapidly acquire and successfully implement new equipment and processes, then hire, train, and empower team members to effectively utilize these resources.

Existing primary customers and their markets are evaluated to ensure alignment with our goals and targets. Potential customers and industries are evaluated to identify opportunities to diversify our customer base.

Operational Capabilities and Needs

Improvement projects, opportunities for advancement and benchmarking needs are determined for operational capabilities by assessing:

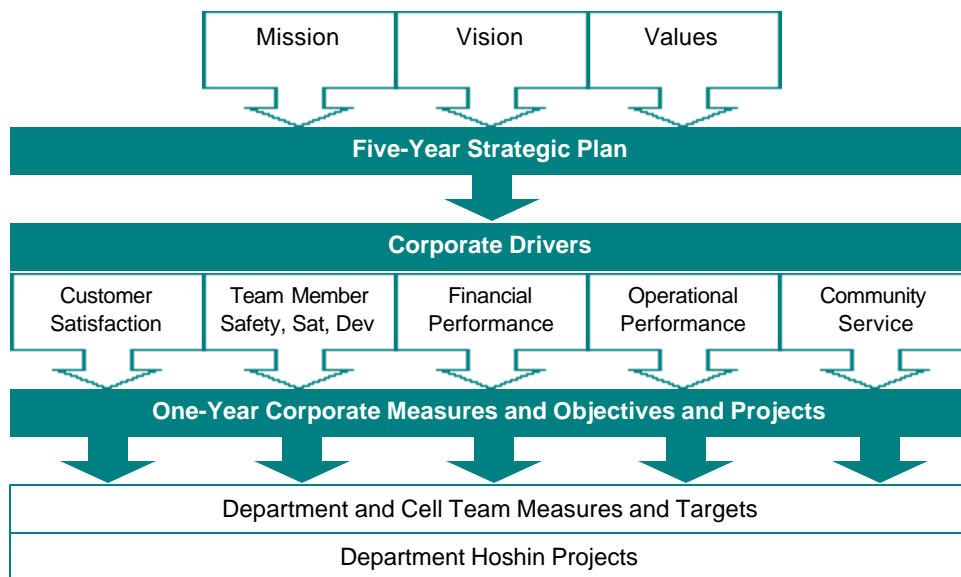
- Current and projected customer requirements.
- Plant and equipment capacity usage.
- New manufacturing processes and technology improvements.
- Cycle time and labor costs reductions through more efficient equipment and systems.

Competitive Environment and Capabilities

Several key factors are evaluated to set stretch targets and to identify the need for technology and process upgrades and new services. Improvement projects are identified to address gaps and opportunities for advancement. Benchmarking needs are also evaluated and defined during this analysis. The factors evaluated are:

- Preferred supplier position with each of our customers.
- Cycle time and response time for prototyping and production.
- Process capacity and capabilities.
- Distribution capabilities.
- Value-added services such as EDI and on-site customer support.

Figure 2.1 Strategic Plans



Financial, Societal and Other Risks

Risk exposure is most prominent in our financial, market, and technological areas. We strive to balance risk levels while maintaining customer satisfaction and industry leadership. Data analysis of these risks by the SEL/KSC teams include:

- Debt ratio trends, profit trends, capital expenditures, and plant utilization are evaluated for financial risk.
- Customer growth and industry market strength are evaluated to determine market and customer risk.
- Process capabilities and growth capacity are evaluated for technology risks.
- Societal risks are minimal but are re-evaluated prior to implementing new processes or equipment.

Team Resource Capabilities and Needs

The SEL/KSC uses several sources of information to determine team member capabilities and needs, and to develop Team Resources plans.

- Team member survey results, turnover ratios and exit interview results.
- Management Team Leader assessment of current and future staffing requirements.
- Availability of key skills in the labor market.
- Customer satisfaction survey results.
- Team member and company performance data.

Due to the importance of our team member resources, a Hoshin was selected the previous two years to address team member development, satisfaction, and retention. While we have made significant improvements in hiring, training and retaining team members, we continue to address these issues through TR plans and improvements.

Supplier & Partner Capabilities and Needs

During the strategic planning and deployment meetings the SEL/KSC teams review supplier quality and delivery performance, supplier survey results, and anticipated customer future needs. The SEL/KSC identify changes in the supplier base and identify improvements to supplier performance management.

Lastly, the SELs identify one or more Hoshins. Hoshin is an area of performance for which the company must make significant improvement to maintain a competitive edge. The Hoshin for the years 2000 and 2001 is to implement lean manufacturing concepts throughout the company.

The primary outcomes of the strategic planning sessions are shown in Figure 2.1:

- Revised mission, vision and values
- Five year business plan
- Key business drivers
- Alignment of corporate objectives and goals to with the five business drivers
- Selection of Hoshins for the new year

Communication and deployment of the strategic direction, objectives, and targets is a core responsibility of each SEL and MTL on the KARLEE Steering Committee. The purpose of the DEPLOYMENT phase is to communicate KARLEE's goals and plans and establish team performance objectives aligned with those goals and plans. The SELs and KSC meet jointly to review the results of the SEL Strategic Planning meetings. The strategic planning results are assessed and refined by the KSC through a consensus process with the SEL team.

The departments then negotiate their targets based upon past experience, current capabilities and available resources. Once targets are established for each department and cell, Management Team Leaders (MTL) identify department and Hoshin projects for the next fiscal year to meet those targets. Team members provide input to action plans for each project. The SEL team then establishes the review schedule for company and work unit performance measurements.

Each Hoshin project is assigned a SEL or MTL owner to provide direction and support. Long-term productivity and cycle time improvements are established as strategic projects by the KSC based on the five year business plan. Examples of strategic projects for the years 2000-2002 are:

- Expand automation through robotics
- Enhance team member growth & development
- Add stamping capabilities
- Create a paperless information system to reduce cycle time
- Develop future workforce in community schools

Team Resources (TR) develops plans for improvements to recruiting, benefits and company culture to support company plans and objectives. TR also works with the Training Coordinator to define improvements to training and education.

The SEL team allocates resources to the production and support departments. Customer-related and Hoshin projects are given top priority across all departments. The assigned team for each department or Hoshin project is responsible for reporting any additional resource requirements to the SELs for review and approval.

The next four phases of the Leadership System occur throughout the year. During the PROJECT MANAGEMENT phase, KSC members deploy the objectives, targets, and projects to their teams. The assigned teams develop and execute detailed action plans to address their Hoshin and department projects. Each team is responsible for monitoring their own processes and making improvements to achieve their goals. Supplier performance issues and expectations are discussed with individual suppliers and presented at the annual Supplier Symposium.

ACCOUNTABILITY for project results is achieved through KSC reviews. The SELs and MTLs monitor the progress of projects and results during these review meetings. The KSC publishes the meeting agenda on a monthly basis to encourage project closure.

EVALUATION of performance is accomplished during KSC weekly meetings and cell team visits. During KSC meetings, project leaders present the results of their activities in written form for evaluation. Plans are refined and resources allocated as needed to achieve the targeted performance. Based upon company performance and stakeholders' expectations, new projects may be introduced into the planning cycle each quarter.

RECOGNITION is given to MTLs during their presentations to the KSC. Cell and department teams are recognized during the cell team visits and through comments on the bulletin board evaluation form.

3 Customer and Market Focus

Customer and Market Knowledge

For many years, the norm in our business has been single-customer machining or sheet metal fabrication shops. Almost all of our local competitors still derive fifty to sixty percent of their business from one or two customers. In the 1980's KARLEE made the strategic decision to break with tradition and diversify its customer base. We have achieved this strategy over several years by carefully selecting customers that:

- Support the same values as KARLEE.
- Desire long-term partnerships.
- Are predominantly Fortune 500 companies who are global leaders in their industries.
- Allow us to serve more than one industry.
- Value our systematic approach to business and performance management.

We recognized early on that if we wanted to be a leader in our industry, we needed customers that would demand a high level of excellence and support our pursuit of it. This has proven to be the case as we partner with our customers to improve and innovate our services and processes.

We segment customers by their industry to monitor the growth and health of each industry and to balance the use of our resources. Some industries primarily use our sheet metal and assembly services, while others use our machining services. Sheet metal services are high volume with lower margins. Machining services, which requires high capital investment and more skilled labor, have lower volumes and higher margins.

Throughout the year, senior executives monitor industry trends to assess customers' strength and the health of their industries. During strategic planning the SELs evaluate customer growth potential against our planned growth in capacity. Through this analysis, we determine if expansion of our existing customer base is required or whether we need to expand into a new industry. Potential customers in existing and new industries are identified and assessed for a fit to our strategic plans. This allows us to act quickly to acquire a new customer should a down-turn in one of the industries we serve demand it.

KARLEE’s approach to strategic partnerships allows continual contact with each of our primary customers. Figure 3.1 shows our business acquisition process which illustrates our listening and learning methods for prospective and current customers.

KARLEE’s ability to anticipate and exceed customers’ requirements has been a key factor in maintaining its rapid growth since 1990. Senior executives and KSC members work with each prospect or customer to establish current requirements and future needs. Listening and learning sources include:

- Customers’ Meetings
- Senior Executive Meetings with Customers
- Customers’ Competitive Reports
- Customer Service Team Meetings
- Customer Satisfaction Surveys
- Problem History Report
- Internal Quality Reports
- Internal Performance Measures

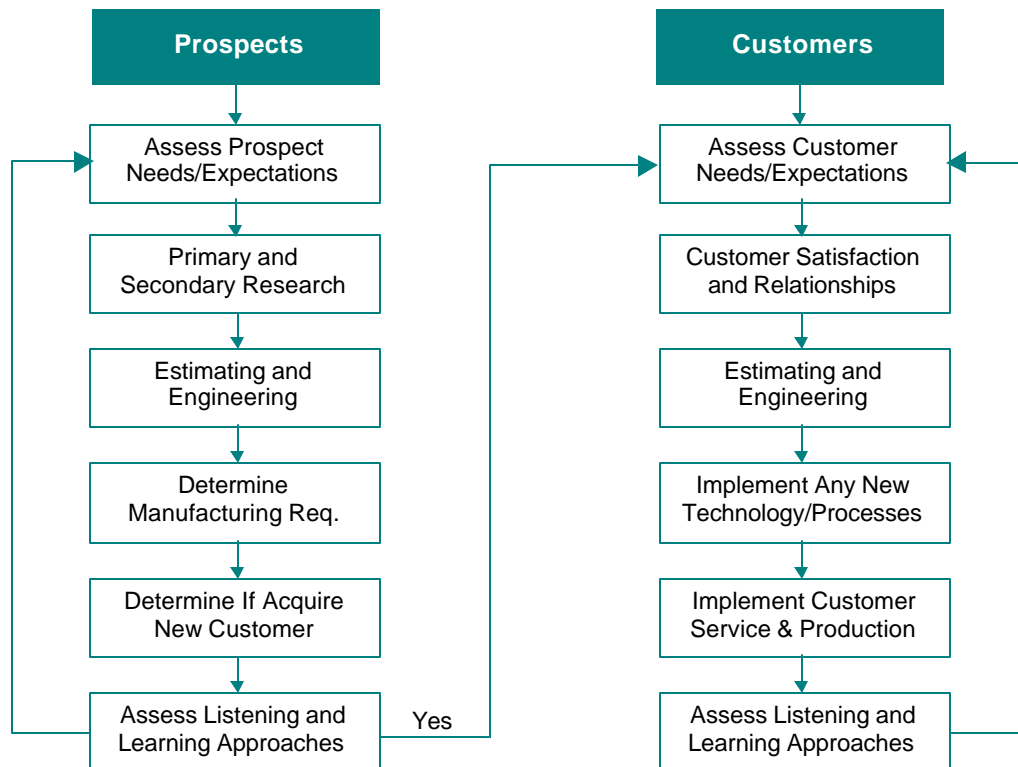
Customers continually request new components through our prototyping services. "Key product or service features" to KARLEE means new types of production services. When a prospect or customer requests new types of services, Senior executives,

Customer Service and Engineering work together to determine how KARLEE’s standard production processes can be adapted to meet those requirements.

In considering changes to our production processes, we look for innovations and improvements that will benefit all customers, as well as those for a single customer. New services for a single customer must be cost-effective and fit within our overall strategic plans. The Customer Service Representatives play an important role in aggregating key inputs including sales, customer retention, won/lost quotes to help evaluate new services.

The SEL and KSC teams evaluate the effectiveness of our “listening and learning” system annually during strategic planning and quarterly during KSC reviews. We evaluate the effectiveness of the type and frequency of information we gain. We also search for additional methods to gain and analyze information about customer requirements, expectations and preferences.

Figure 3.1 Business Acquisition Process



Customer Satisfaction and Relationships

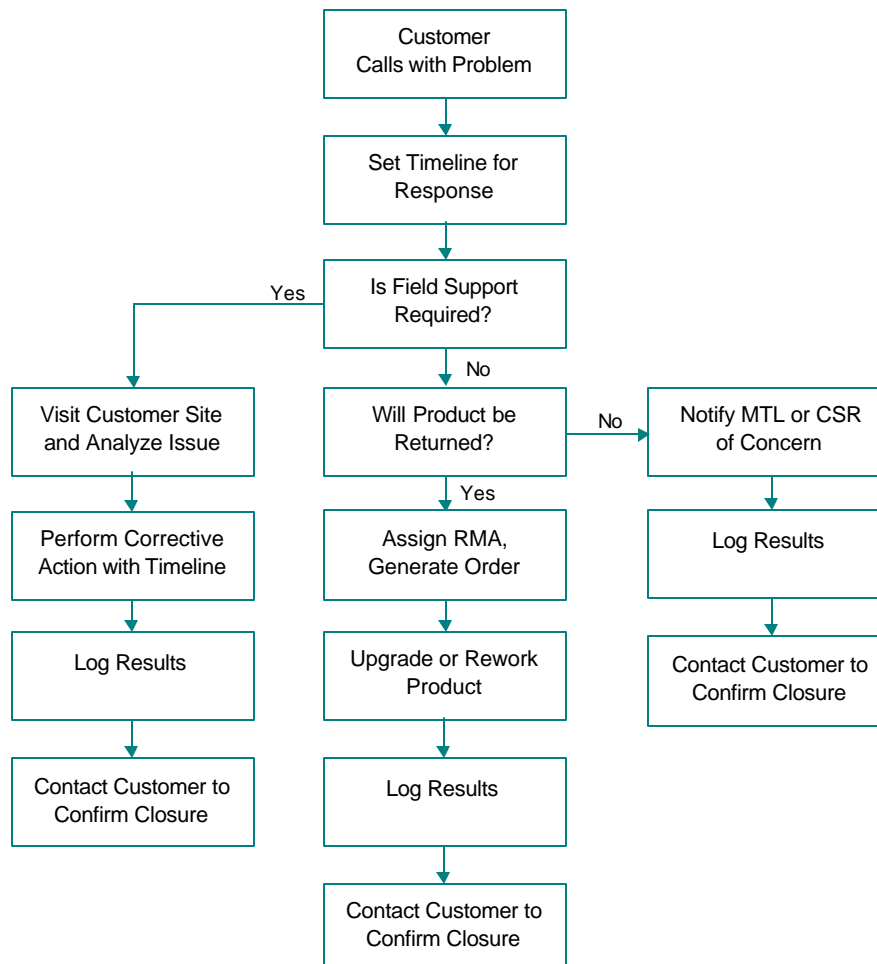
SEs determine key access mechanisms and customer contact requirements by working closely with our customers to determine their needs. The primary requirement is timely communication about schedules and deliveries for production orders and prototypes. Each primary customer is assigned a two-person Customer Service team to act as the main interface for day-to-day production issues. One member is an estimator who provides quotes for the customer. Customers request quotes for annual contracts, for competitive bids for new components, and for costing potential products. The second member is a Customer Service Representative (CSR) who provides liaison support in communicating delivery, scheduling, order entry, and other requested information. The Customer Service Representatives for three of our primary customers provide on-site support, spending two to three days a week to full time at the customer site.

Each Customer Service team is on call 24 hours a day. KARLEE uses a mobile phone system that includes voice-mail, email and radio communications. SEs, MTLs and Customer Service Representatives are issued the mobile phones to make them accessible whenever they are away from their office. In the event they are unavailable, a private voice-mail can be left for any team member. Home phone numbers of Customer Service Representatives are given to customers as well.

Customers normally direct inquiries to their Customer Service Representative. If a non-CSR team member is contacted by the customer, that team member takes action to resolve the customer's concern by resolving the issue or contacting a Management Team Leader.

Figure 3.2 shows our problem resolution process. This process is used to address customer questions, concerns, or problems.

Figure 3.2 Problem Resolution Process



The figure also shows our return management process for customer requested upgrades/design changes or repair of defective product. The customer is always kept informed of status and resolution throughout the process. If a problem exists at the customer site, the QA Customer Service Specialist visits the customer immediately. Depending on the situation, the issue is resolved on-site or arrangements are made to return the product to KARLEE. Defect information is entered into a Corrective Action database. The teams use this information to identify process problems and initiate improvement projects to eliminate the cause.

Long-term partnerships with our customers are the very foundation of our strategic position in the marketplace. KARLEE develops and ensures customer loyalty by providing a full range of manufacturing, engineering and customer support services, maintaining a committed “can do” attitude, and being able to rapidly meet changing requirements. Our ability to vertically integrate processes and provide engineering support from design conception through production strengthens the bond we have with our customers and ensures our continued relationships. Additional methods of building and sustaining long-term relationships with our customers include:

- Learning our customers' business challenges and using this information to seek opportunities to better support their performance.
- Providing proactive cost management solutions, remaining responsive and flexible to schedule changes, and maintaining capacity and resources to adjust to customer growth requirements.
- Maintaining open communications at each business level.
- Supporting major customer initiatives, such as Hoshin projects and Lean Manufacturing.
- Sharing detailed cost information to assist customers in joint cost reductions.

Each Customer Service team prepares a weekly Customer Status Summary. The summary report includes customer satisfaction concerns and issues, and any production or quality problems. SEL and KSC team members review the report during the weekly Leaders meeting and assign actions as required. All of these sources of customer input assist the company in keeping our customer access and relationship approaches current with changing business needs and strategies. Improvements to customer access and relationship management may be determined during strategic planning or throughout the year. Changes in our approaches are related to the Customer Service groups.

KARLEE has conducted annual customer satisfaction surveys since 1992. All key customer contacts (buyers, planners, quality personnel, engineers, and management) participate in the survey. We request each contact to complete only the areas with which they have direct experience. The survey is divided into major categories aligned with the key process groups within KARLEE that directly impact customer satisfaction:

- Customer Service
- Engineering Support
- Quality Assurance
- Shipping and Delivery
- Accounts Receivable
- Receptionist

We have conducted verbal (in person or over the telephone) satisfaction surveys for the past four years. This bi-monthly survey is designed to assess whether our services and products are current with our customers' business needs and directions. Results from the bi-monthly and annual surveys are presented to leadership at KSC meetings.

Customer dissatisfaction is tracked through the information about customer returns, customer complaints, the Customer Status summary and direct customer feedback to senior management.

One advantage to partnering with a limited number of customers is our ability to provide dedicated support and rapid response to each customer. Each Customer Service team meets with their assigned customer weekly to receive production information and feedback on recent activity. Any concerns are reported in the Customer Status Summaries and are immediately addressed by the SEL and KSC teams. Senior leaders meet with customers at least twice a month to discuss requirements and obtain feedback on performance.

KARLEE receives competitive ratings from several customers. All customers provide quality and on-time delivery performance ratings. We monitor the percentage of quotes accepted as an indicator of trends in customer satisfaction relative to competitors. Since some of our customers no longer take competitive bids for the components we produce, we also measure re-orders. Another indicator of customer satisfaction relative to competitors is our increased market share with each customer.

Information and Analysis

Measurement of Organizational Performance

KARLEE uses information and data to set goals, align organizational directions and manage resource at the operating, process and organizational levels. Figure 4.1-1 shows the main types of data for each key business driver and their uses in planning, managing operations, and monitoring process improvements.

KARLEE's key business drivers, objectives, and goals define the type of information used for planning, operational management reviews and process improvements. Information for the customer satisfaction driver is selected to link our process measures to our customers' requirements. Information for our other key business drivers is selected to support process evaluation and improvement, and to manage overall company performance.

Objectives, goals, and targets for improvement are deployed to the team level during strategic planning. Each department and cell team participates in establishing targets and measures. We use five criteria in selecting the type of data to be used. Data must:

- Be customer driven
- Support process improvements
- Measure results against a goal, objective, or project
- Be prevention oriented and verifiable
- Support day-to-day operations

Each goal and key project has defined methods for measurement. The KARLEE Steering Committee (KSC) maintains a matrix of goals and projects for production and support departments to ensure standardization throughout the company. The matrix includes:

- The data owner
- The goal, objective, or project related to the data
- The data measure and improvement target
- The data review schedule

Our current information system, eManufacturing, runs on a client-server LAN platform. This system integrates all company data to provide more accurate and timely data analysis. It provides the framework for our plans to evolve into a paperless company.

E-Manufacturing maintains data from the shop floor and job management, payroll, purchasing, quote, sales, inventory, methods of manufacturing, and all financial information. Our data collection system is

used to input, store, and retrieve operational process control data, inventory, team member time and attendance, payroll data, financial data, accounts receivable, and accounts payable. Customer-related data is integrated into the system for instant accessibility and updates by the Customer Service Representatives. Standard query formats have been created to assist users in quickly accessing information. Users can also create custom queries as needed, making all data readily accessible. Training is provided to ensure all users can correctly enter and retrieve data.

Our Electronic Data Interchange (EDI) system gives our customers access to our system to easily transmit information (purchase orders, print data exchange, schedule changes, KanBan requests, etc.). EDI reduces cycle time, increases customer satisfaction, and reduces paper flow.

The Senior Executive Leaders (SEL) and other KSC members identify comparative information needs and priorities during strategic planning and during quarterly performance reviews. This information is selected to help us evaluate our performance and set targets for key business drivers.

We select sources of comparative information based on similar processes and markets. Our primary sources of information are our customers, non-local industry competitors, key suppliers, industry publications, and MBNQA recipients. KARLEE is a privately held company, as are most of our direct competitors. Therefore financial or operational data on direct competitors is limited. We do obtain comparative data on related industries from blind studies conducted by the Hogan Center for Performance Excellence.

Benchmarking opportunities are identified by SEL/KSC members and by teams involved in process improvement projects. We look for those opportunities that would gain the most benefit from a benchmarking effort. We select areas to benchmark based on:

- Improvement targets for each business driver in the coming year
- Competitive gaps or industry/market trends
- Business opportunities for new processes or services
- Research on leading edge technologies

The results of each benchmarking study are documented on a benchmarking form. This information is used to analyze process flow, process procedures, process measures, and process results to identify potential areas for improvement.

The results of benchmarking studies are presented bi-monthly to the KSC. Proposed solutions from benchmarking studies are reviewed and approved for implementation. Figure 4.1 shows examples of benchmarking studies conducted in the last few years both within and outside our industry.

The KSC also identifies best practices that might be applicable to other areas of the company. This information, along with the results of the benchmarking study, is maintained in a benchmarking file that is available to all team members. Team leaders can review this data for process improvements and verification of our competitive status.

4.1 Examples of Comparative Benchmarking

Company Benchmarked	Breakthrough Strategies & Stretch Goals
(Finland competitors)	Use of robotics welding and brake workstations
Local competitor-quoted delivery times	Stretch target in quoted delivery times
Southwest Airlines	Enhancement of Culture Advisory Committee, improving team member satisfaction and well-being
California company	Installation of laser cutting technology for machining and prototyping
Customer's supplier program	Annual Supplier Symposium
Data Works Software	Design of new company-wide computer system
West coast machining companies (competitors)	Introduction of cellular manufacturing
Semiconductor Manufacturer (customer)	Improved processes through Lean Manufacturing concepts
MBNQA Recipients	Improvements to Team Member Satisfaction Survey

The Accounting Management Team Leader (MTL), Purchasing MTL and IS Administrator have primary responsibility for monitoring data reliability. The IS Administrator backs up all data according to a schedule that complies with the company's Disaster Recovery Plan. The reliability and integrity of data is ensured by designing cross checks into data collection and by periodic audits.

The KSC uses a cost vs. benefit approach for assessing and approving improvements. For example, the social committee budget and annual selection of insurance benefits are evaluated against the perceived value of the benefits. Capital purchase requests, especially for machining and sheet metal equipment, are closely evaluated to ensure adequate cost justification.

The use and effectiveness of information and data are evaluated and improved on the company level and the team level. Prior to strategic planning, team leaders complete a survey about the effectiveness and use of the measurement system. Questions on the company level address the effectiveness of objectives, goals, and measures in deploying company direction. On the team level, questions address the effectiveness of team measures and goals in monitoring and improving their processes. The SELs and KSC use the results of this survey to evaluate both company and team level measures to determine if these:

- Provide a true measurement of performance
- Have been useful in managing performance
- Track information still important to the company

During deployment of top-level goals and measures, the teams may recommend changes to measures they believe will better support their process management efforts. This evaluation process is repeated quarterly during the KSC review of measures and results.

The SELs and the KSC also evaluate the benchmarking process during strategic planning. Changes to the process in the last few years have included improved methods for identifying benchmarking sources, formal documentation of benchmarking results, and KSC reviews of benchmarking information.

Analysis of Organizational Performance

KARLEE's key business drivers are selected to address the needs of all stakeholders. Organizational-level objectives and measures are aligned with these key business drivers, which provides a visible means of assessing the overall performance and health of the organization. Financial indicators, such as sales growth, debt ratio, profitability, and return on investment, are monitored against company goals. We monitor market performance and market segments to determine if we need to add new customers. We compare sales growth with customer satisfaction indicators to verify the correlation between our performance and customers' buying behavior.

Senior executives compare sales forecasts to plant capacity and labor productivity weekly to ensure we have the resources to meet our current customer requirements. They also monitor trends in labor productivity and operational/administrative costs on a monthly basis to determine savings from improvement initiatives. Lower level operational data is aggregated through the monthly Sales & Operations Plan, to allow a broader picture of the company's financial condition.

We compare trends in turnover rates, team member survey results, and exit interview information to identify cause and effect relationships and determine the effectiveness of improvements in recruiting, training, benefits, and other team member well-being initiatives. SEL/KSC members monitor trends in customer satisfaction measures, customer returns, quality measures, and rework/scrap rates to determine how well we are meeting our goals and customer specifications.

Organizational level analysis is linked with functional operations through the measures deployed throughout the organization. For example, a key business driver (KBD) is Customer Satisfaction. One objective under this KBD is Quality, which is measured at the corporate level as returns (dollars) divided by sales (dollars). At the operational level, trends in quality are measured through process capability C_{pk} and rework/scrap. On the team level, quality measurements include a weighted quality rating that measures customer returns and internal defects. All of these measures influence customer satisfaction, however, each level of the organization is responsible for the measurement that they can affect. This cascading of measures allows senior executives to identify trends and issues at the organizational level and quickly drill down to functional areas for corrective action and improvements.

Figure 4.1-1 Information and Data for Operations and Decision Making

Key Business Driver	Corporate Objective	Types of Data
Customer Satisfaction	Performance Rating	Bi-monthly and annual customer surveys, Weekly Customer Status Summaries, Customer verbal competitive ratings
	Quality	Corrective action database, Problem History Reports , Non-Conforming Process Reports, Production process capability C_{pk} , Internal quality audit reports
	Delivery	Quarterly production process cycle time, Quote response time, On-Time work center performance measures
Team Member Satisfaction and Development	Team Member Satisfaction	Annual team member satisfaction survey, Annual benefits survey, Annual performance review, Exit Interviews, Turnover ratio
	Safety	Accident reports, insurance reports, OSHA, EPA, ADA reports
	Training	Training hours completed per team member, Training hours completed per team leader, Team member job / quality certifications
Community Service	Community Hours and Contributions / \$	Community hours served by team members, Financial reports
Financial	Financial Indicators	Financial reports
Operational	Labor Productivity	Financial reports, Recruiting cycle time
	Operational Costs	Financial reports, Work-in-process and Inventory levels
	Admin. Costs	Financial reports
	Cycle Time Reduction	Manufacturing cycle time, machine utilization and team efficiency measurements
	Waste Reduction	Quarterly quality department and cell team reports on scrap and rework costs
	Materials Mgt	Annual supplier surveys, Supplier delivery rating, Inventory data accuracy to min-max levels, Notice of Rejection (NOR) to suppliers

Team Resources Focus

Work Systems

Team culture, family values, and high performance expectations are the basis of our approach to Team Resources management. We want our team members to contribute to and share in our success. We constantly strive to help our team members understand their customers' requirements, know how to meet those requirements, and continuously improve their performance.

KARLEE promotes cooperation and collaboration through our team structure. Our production and delivery processes are designed around teams of manufacturing cells. Each cell is responsible for knowing their customer's requirements and for producing products to meet those requirements.

Manufacturing teams use Statistical Process Control (SPC) techniques and performance measurements to monitor their team and process performance. Production teams complete a monthly self-audit to document compliance to procedures and work instructions. Support and administrative teams monitor process measures, training hours per team member, and other measures related to their particular work group.

KARLEE promotes cross-training and job rotation to foster flexibility and learning and enable rapid response to changing customer demands. These concepts are deployed throughout all teams at KARLEE. Accounting team members rotate to train in different accounting positions after mastering their primary job responsibilities. Job rotation provides a flexible response to peak loads in a work area, while enhancing job diversity and skill knowledge.

KARLEE helps team members to develop and utilize their full potential by creating an environment of empowerment and opportunity for growth. Team members are empowered to take ownership of and are held accountable for the processes within their work area. During strategic planning, objectives and targets are deployed to the operational, administrative, and support teams across the company. Each team is empowered to change their recommended targets and request additional measures if they believe it will help them achieve higher performance. Team members plan and execute their own improvement activities to meet those targets.

Teams are empowered to schedule work, manage inventory, and design the layout of their work areas. Any team member can stop production if the process is not performing to customer requirements or process specification.

KARLEE offers its members a wide array of development opportunities through in-house training and tuition and books assistance. KARLEE strives to develop leadership from within the organization. Eighty-four percent of KARLEE leaders, from Senior Executive Leaders to Operational Team Leaders, were promoted to a leader position from within KARLEE.

We support high performance by communicating expectations, providing the skills and knowledge to meet those expectations, and reinforcing performance through reviews and recognition. Expectations are communicated and deployed through performance targets aligned with KARLEE's key business drivers. Members receive 30 hours of training a year, and leaders 35 hours, to gain needed skills and knowledge.

Leaders and team members have formal coaching sessions every year to discuss individual goals and action plans (new team members receive a 90-day review and a 6-month review). At this meeting, job performance standards, such as quality, timeliness, teamwork, and accuracy of work, are established. This ensures that there is understanding and agreement on all levels of team member requirements and expectations. Goals and training requirements are also established for the next review period. Team performance is reviewed and recognized at the KSC meetings and the SEL/KSC team bulletin board visits.

KARLEE conducted a benchmarking study in each of the past three years to determine competitive compensation levels. As a result of these studies, we have realigned pay levels and increased compensation for many of our job positions to be more competitive in the labor market.

KARLEE offers excellent benefits to foster team member well-being and to allow team members to share in the success of the company. KARLEE contributes a matching percentage of team member contributions to their 401(K) accounts. Our profit sharing program is based on company profits. Team members share in the profits of the corporation based upon attainment of specified goals.

Recognition and rewards are key factors in motivating team member involvement and ownership. Our Culture Advisory Committee recommends actions to Team Resources to foster our values and team culture. Team Resources forms task teams to develop programs supporting team member recognition and satisfaction. Examples of recognition programs include:

- Team Member of the Month
- Team Member Appreciation Day
- Team Member Skill Certifications
- High Performance Team of the Month
- Quality Person of the Month
- Operational Team Leader of the Quarter
- The Gold Star Award for SELs, MTLs and OTLs
- Rising Star Program
- Perfect Attendance Recognition
- Birthday Recognition
- Anniversary Recognition

SEL and KSC members formally recognize individuals and teams for accomplishments during our monthly company meetings. Examples of informal recognition include:

- Thank You tokens (restaurant certificates, movie passes, lotto scratch-off tickets, etc.)
- Company store items (T-shirts, cups, hats, badge strings, pens, etc.)
- Pizza and BBQ lunches (for reaching goals within teams)
- Popcorn day (thanks for your efforts)
- Crazy hat/sock day (just for fun)
- Thank You notes written by the CEO for outstanding efforts and achievements.

The Rising Star Program enables team members to recognize each other for outstanding support or performance. Each team has its own annual budget for team recognition and celebrations. Management Team Leaders report the expenditures of their teams during a KSC review. Additional team expenditures are approved through the KSC.

Effective communication is achieved across the company through meetings and written communications. Management Team Leader meetings are conducted weekly to exchange administrative and operational information, and to communicate customer requirements. Minutes of the MTL meetings are related to team members during their weekly department meetings.

The production scheduling team is an example of day-to-day cross-functional communications. This team consists of members from manufacturing and support groups that share information and coordinate activities to ensure customer requirements are met. Communication of production improvements is accomplished through the Problem History Report. This report includes previous defects, corrective action taken to resolve the defect, and how to prevent the defect from reoccurring. Production teams acknowledge the review of this information by stamping the report prior to the production run.

We recognize the importance of good communication with our Spanish and Vietnamese speaking team members. We promote good communication by providing:

- Critical internal publications in English, Spanish, Vietnamese
- Interpreters at meetings, as needed
- A bilingual Team Resources member

Team members also share skills and knowledge through cross-training and job rotation. Understanding each other's job responsibilities helps the team members communicate and cooperate more effectively on the job and when working on improvement projects.

To fill job vacancies as quickly as possible and to provide opportunities for career growth, KARLEE promotes from within when qualified team members exist and filling the position from within is in the best interests of the company. Available positions are posted on the bulletin boards in the break rooms.

Potential candidates are first screened for a match with KARLEE's culture and values. Only candidates that pass this screening are considered further. Each candidate then goes through skill-set interviews with Team Resources and the hiring Operational and/or Management Team Leader. In addition to skill assessment, compatibility with the team and customer are assessed.

The Dallas metroplex and the City of Garland in particular are inherently diverse communities. The diversity of cultures in these cities is clearly represented in KARLEE team members and applicants. Our CEO's active involvement in the local Workforce Development Board demonstrates our commitment to diversity and fair work force practices. KARLEE also offers internships and part-time opportunities to students from Richland College and the Garland Independent School District.

Team Member Education, Training, and Development

Team member training and career development are major components of our team culture and high performance expectations. Training requirements to support KARLEE's goals and strategies are determined by the SEL and KSC teams during strategic planning. The SEL/KSC members determine new education and training requirements needed to build specific skills for each department within the company. This is accomplished by reviewing customer requirements, new equipment purchases and incorporation of new technologies/processes.

During the year, requests for new training classes originate from leadership (SEL/KSC), the Safety Committee, Management Team Leader surveys on training needs, Operational Team Leaders, cross-functional teams working on new processes, and the individual team members. These requirements are reviewed and refined quarterly by the KSC.

Team member training requirements are identified during the team member's annual performance evaluation. Completed training is documented in a database and can be reviewed by the team member or team leader to determine future training requirements. This year's training goal (FY2001) is an average of 25 training hours for each team member and 40 hours for each leader.

The SELs are responsible for the career development program. Current leaders as well as individual contributors who demonstrate performance excellence and a drive for advancement are placed into the career development program, consisting of:

- Leadership skills assessment and identification of areas for improvement
- Career development plan which includes short and long-term objectives and training needs
- Career development coaching by SELs

MTLs assist the Training Coordinator in defining class requirements. Requirements are based on input from the requesting party and an analysis of the job skills or knowledge to be gained from the training class.

The effectiveness of our training program is evaluated during the annual strategic planning sessions and quarterly reviews. The SEL/KSC teams and Training Coordinator analyze data from multiple sources to determine improvements for training, including class attendee evaluations, questions about training on the team member survey, exit interviews, and training needs assessments performed by an outside consultant.

Management, administrative and manufacturing team members work with the Training Coordinator to determine the needs and expectations of internal training programs. This group defines the course outline, syllabus, training materials, and tests for each course.

Training rooms are available to accommodate our internal training needs. When possible, we use experts within the organization to teach a given course. Testing is performed at the end of the course to ensure full understanding.

Partnerships with educational and professional organizations provide KARLEE with excellent external training resources. These include:

- Community College Classes
- Customer and Supplier Classes
- American Production and Inventory Control Society
- American Society for Quality
- Hogan Center for Performance Excellence

Tuition and books reimbursement and flexible work schedules allow team members to attend off-site continuing education classes and degree programs.

KARLEE communicates values, directions, and expectations to newly hired team members during the first day of employment. The purpose of the orientation is to communicate critical safety information, cover administrative issues, and explain our Mission, Vision, and Values Statements.

During production training the new team member learns the department and team goals. During Phase II training, new team members attend a quality orientation which includes an overview of Statistical Process Control (SPC) and training on ISO 9002. During Phase III training, the SEL team meets with new team members to reinforce corporate goals and customers' expectations. Phase III is an informal meeting designed to acquaint team members with the officers and directors of the company, and to promote our family and team culture.

All leaders at KARLEE attend internal leadership training (CEO's Leadership Course) that focuses on values and leadership skills. Prior to being promoted into an entry level leadership position, the team member is required to attend this training. Many leaders also attend external leadership classes to enhance their management and leadership skills.

All KARLEE team members and leaders attend quality training through Phase II, which includes an overview of Statistical Process Control (SPC) and training on ISO 9002. KARLEE has a two-level quality certification program that supplements the role of Process Auditors who work in the Quality Assurance Department. The first level authorizes a team member to verify quality performance in a cell or work group. The second level, called Certified Liaison, authorizes a team member to verify quality performance at the department level. The Quality Assurance MTL or OTL verifies skills learned in quality training. They observe job performance and evaluate Non-Conforming Process Reports (NCP) to determine training effectiveness and whether additional training is needed.

Internally developed and customer provided classes include design of experiments, advanced print reading, process improvement tools, and lean manufacturing concepts. Supplier classes include metal forming, metal braking, and robotics.

Knowledge and skills are reinforced on the job through several approaches:

- OTLs and MTLs provide on-going monitoring and coaching of all team members.
- Each team performs a monthly self-audit to verify they are following work instructions, monitoring and controlling their processes, and keeping proper records.
- The QA team compiles a monthly quality report on team performance. The report includes self-audit results, number of customer returns and number of non-conforming process reports.
- Team progress is evaluated through the use of bulletin boards that show company, department, and cell team performance in support of company objectives.
- New team members are teamed with a "Buddy" who provides coaching and monitors on-the-job performance.
- The ISO Coordinator performs audits of team member knowledge and skills. On a semi-annual basis our ISO registrar performs an assessment of our company to the ISO 9002 standard.

Team Member Support Climate

KARLEE provides a clean and safe workplace for all team members. The Safety Committee attends community and industry functions to study current and future concerns/issues that impact KARLEE. The Committee reviews pending regulatory issues, monitors the effectiveness of current safety programs within KARLEE, and recommends improvements in safety policies and procedures to the KSC.

MTLs and/or Safety Committee members document every safety-related incident. The Safety Committee investigates all incidents and takes corrective action. Safety is everyone's responsibility at KARLEE. Team members receive safety training and are expected to follow safety procedures at all times. Teams are responsible for assessing the impact on safety and health when considering any changes or upgrades to equipment or processes. A safety tip is presented each month in the company newsletter and safety issues are discussed at the company meeting.

Our safety manual, in English and Spanish, defines safety requirements and procedures at KARLEE. Our internal indicators are:

- Safety as measured by the number of injuries per 100 members requiring medical attention.
- The costs of medical attention for injuries on the job.

Our facility has spacious, well-lit offices for administrative and support staff. Office design provides ample work space for each team member. We have a program for early detection of ergonomic-related health issues such as repetitive motion or back injuries.

KARLEE uses three outside resources to verify our safe work environment.

- A loss control representative from our insurance carrier conducts an annual evaluation of our facility.
- OSHCON conducts an annual site visit to verify compliance with all OSHA regulations.
- An Environment Data Services Inc. representative provides annual environmental safety training and conducts an annual audit of our facility.

KARLEE fosters a team culture based on genuine caring and support among leaders and team members. We stress the importance of mutual trust, honesty, respect and team member well-being. The support climate is also enhanced through:

- The KARLEE Cares Team which members formed to meet catastrophic needs of their fellow workers and the community.
- The Cultural Advisory Committee which recommends ways to better fulfill our values, vision and mission.
- The students of our team members are recognized and rewarded for scholastic achievement through the “KARLEE Super Kids” and Scholarship programs.
- Team Resources provides a *Welcome Bag* to all new team members and sponsors social activities such as holiday lunches, picnics and parties on a regular basis.
- Our facility includes a 1,523 square foot workout area to encourage good health practices among our team members.
- We conduct an annual on-site “Health Fair.” We also encourage participation in the March of Dimes walkathon by sponsoring teams.

The Cultural Advisory Committee assesses our processes, programs, and policies to recommend changes that would help us better fulfill our values, vision and mission. This includes valuing the diversity of our workforce, which we emphasize in our Diversity in the Workplace training.

Team Member Well-Being and Satisfaction

KARLEE determines key factors that affect team member satisfaction and well-being through information and data from the team member survey, exit interviews and team member interactions with company leaders. The exit interviews include questions about what the leaving team member likes most, dislikes most, and would change about KARLEE. The annual survey asks team members to rate the top three items on the survey that concern them the most.

KARLEE monitors and determines team member satisfaction and well-being through surveys, corporate level indicators, and informal member feedback:

- The annual team member survey provides information about satisfaction levels and key drivers of satisfaction.
- Exit interviews provide feedback on proper training, relationships with team leaders, and understanding of expectations.
- Exit interviews provide information on reasons for leaving and key drivers of satisfaction.
- Annual team member performance reviews include questions on job satisfaction and well-being issues.
- The turnover ratio and absenteeism rates are reviewed quarterly by the SEL/KSC teams to monitor team member satisfaction and local employment trends.
- Safety indicators (injuries and medical costs) indicate the effectiveness of safety programs.
- SEL members attend department meetings to receive feedback from team members.
- KARLEE officers host quarterly luncheons with team members to obtain feedback on their concerns.

Process Management

Product and Service Processes

KARLEE is a contract manufacturing services company. All of the products we produce are to our customers' specifications. Depending on the type of service, the design processes for new services address the time, costs, and staffing needed to:

- Purchase and install equipment
- Design the production process
- Design any new support processes
- Design the IS interface
- Create all production documentation
- Complete cell layouts in the plant
- Hire any new team members
- Train all impacted team members
- Establish supplier agreements for materials
- Complete equipment installation and setup
- Complete pilot test runs
- Implement the production/support process

Our production and delivery processes are designed around manufacturing cells. Each cell has the responsibility for knowing its customers' requirements and for producing product to those requirements. This allows us to translate customer requirements directly into process and workflow designs. The engineering team member leads the effort to design the new process. This includes process and material flows, safety procedures, and any environmentally related procedures for the new process.

During strategic planning, the Senior Executive Leaders (SEL) and KARLEE Steering Committee (KSC) evaluate customer requirements, market trends, and competitive position to incorporate changing customer and market requirements into our design and delivery processes. New processes may also be initiated during the year to meet customer requirements for new services.

The SEL/KSC assigns a task team to plan and implement new or upgraded manufacturing and support services. This is accomplished using the Process Improvement Process (see Figure 6.2). Depending on the scope of the project, the task team will include team members from manufacturing, engineering, support areas, quality assurance, purchasing, suppliers, and the customer.

The team meets with the customer to review the requirements for the new service. The team then conducts an initial study to determine what type of equipment, processes, and resources would be required.

The team presents an initial cost/benefit and feasibility study to the SEL/KSC. The SEL/KSC decides whether to proceed with the project. The SEL/KSC also decides whether to benchmark the process and with which companies. If the project is to be implemented, the team meets with the customer and develops a detailed plan and timeline for implementing the new process.

We implement new technologies to meet our customers' needs for new types of services. We also implement new technologies for our existing processes to increase capacity, reduce cycle time, and reduce the need for skilled workers. The evaluation and implementation of technology can be initiated during strategic planning or throughout the year as market and customer requirements change. The SEL/KSC assigns a task team to determine the scope of the project, perform a benchmarking study of the technology, and implement the new or upgraded technology.

KARLEE ensures that production/delivery processes meet all operational requirements by obtaining approval from customers and key suppliers during the prototype and pilot phases of the project. Processes are re-calibrated by process owners to meet changing requirements related by customers and suppliers during design and review meetings. KARLEE also ensures process designs meet requirements by testing designs prior to production.

For production processes, the task team works with the appropriate manufacturing team members to complete new cell layouts. A Quality Assurance team member works with the other team members to create all process documentation. All documentation is written to ISO-9002 standards. The engineering, quality and materials team members work with the suppliers to establish agreements for materials for a pilot test and for ongoing production.

When all resources are in place, the team initiates a pilot test of the new process or technology. The team conducts a test run of the new process to verify its full compliance with all requirements. The process is then taken through this cycle repeatedly until customer and process requirements can be met on a consistent basis.

The task team reviews the completed project, reports the results to the KSC, and identifies improvements for future projects. Lessons learned are related through the SELs. This includes applying innovations and improvements to other areas of the company as well as improvements in the design process.

Production/Delivery Processes

Figure 6-1 shows KARLEE's processes for production and delivery processes. This includes advanced engineering support for prototypes, generation of production quotes, and manufacturing and delivery of metal products. While these processes are listed in a continuous stream, the actual work flow depends on the needs of the customer for each product. We may develop a prototype which then goes into production, set up production based on a design developed elsewhere, or process a repeat order for existing products. Our goal is to provide an integrated set of services to meet each customer's needs.

Each customer is assigned a permanent customer service team of two people. This team is our customer's primary contact for quotes, daily production orders, and problem resolution. The team includes an estimator and a customer service representative.

Our team members maintain the performance of production and delivery processes by monitoring and improving key process measures related to customer requirements and corporate objectives.

Any team member can stop production any time the process is not performing to customer requirements or to process control limits. The cause and the adjustment are noted on the control chart. A Non-Conforming Process Report (NCPR) is written, which is added to the Production Information Sheet and used by the team in process improvement efforts.

If problems occur several times with a process, the Management or Operational Team Leader determines the problem and initiates corrective action. The sample size is increased until the process is improved and brought back within control limits.

Each team performs a monthly self-audit to verify they are following work instructions, monitoring and controlling their processes, and keeping proper records. The QA team compiles a monthly quality report on team performance which includes self-audit results, number of customer returns and number of NCPR reports. These metrics are posted on department and cell bulletin boards.

Figure 6.1 also shows a summary of the manufacturing process measures. We use SPC for metal working process measurements to ensure the process functions within established control limits. The metal working teams use digital gauges to measure product samples to specifications on customer drawings. Paint and plate teams use thickness and gloss meters to measure product coatings. Quality certified members of each team and Process Auditors verify the team's work by measuring random samples of the production lot.

The teams evaluate and improve their processes through the improvement process shown in Figure 6-2. Each team documents the results of their improvement projects and presents a status of their improvements to the SEL/KSC quarterly. The teams use four sources of data to analyze their processes:

- Defects from the NCPRs
- The monthly team quality report which shows the top three types of defects
- Problems reported by customers
- Process control charts generated during production runs

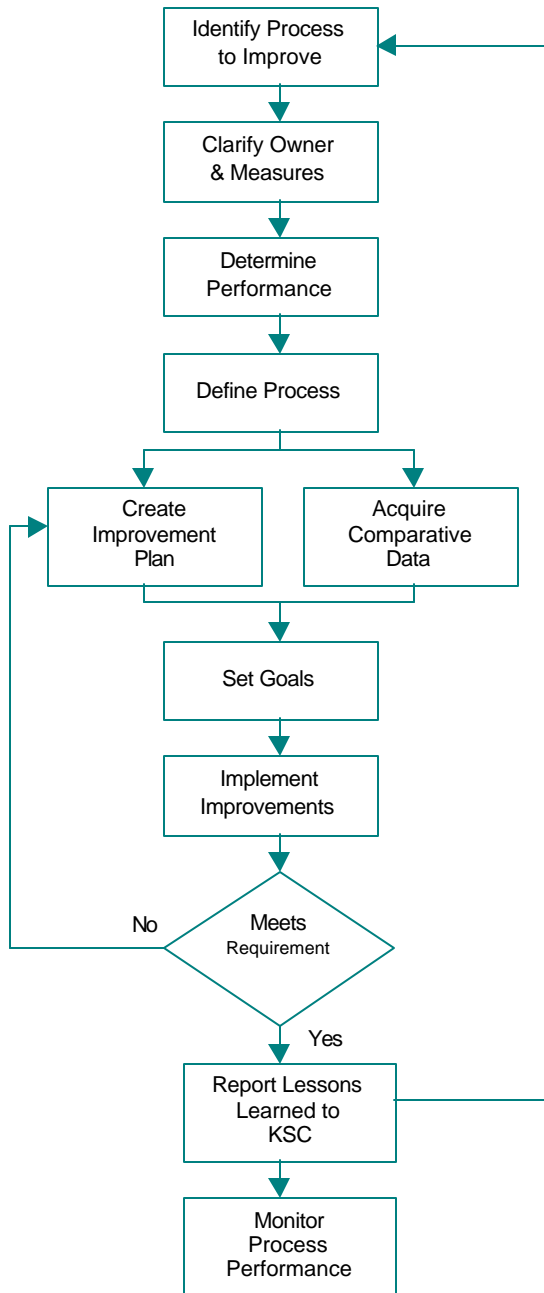
The teams use pareto analysis and other quality tools to identify the most prevalent problems. The teams use design of experiments when analyzing difficult process problems or complex solutions. The Engineering and QA teams assist with this process.

Manufacturing teams use benchmarking to identify methods to reduce cycle time and improve capacity. We benchmark with competitors, with "best practice" companies, with our customers, and with customers of our suppliers. We concentrate our benchmarking efforts on improved technologies, cell layout, process flow, and process procedures. Benchmarking has proved to be a key source of better practices when a process has been through several cycles of improvement and incremental gains are more difficult to achieve.

Figure 6.1 Production Processes

Process	Owner	Key Steps	Requirements	Measures
Develop Product Prototype	Customer task team	Advise customer on design and cost of component Produce the base prototype Translate the customer's design into CNC for a first article run Finalizes product measurement plan	Quality of design assistance	Customer satisfaction with design assistance
Generate Production Quote	Estimator	Review specifications Define shop floor routing Estimate materials and labor	Quote response time.	Customer satisfaction with quote response time
Receive Purchase Order	Estimator	Notify purchasing of all material requirements Call quality planning meeting to review production requirements		
Scheduling	Customer Service Team	Review product specs Determine scheduling Verify material requirements Route new product designs to engineering Enters order to system Schedule the production job	Correct data entry	Customer satisfaction with scheduling lead times Customer satisfaction with rescheduling
Set Up New Product for Production	Engineering Programmer	Translate the customer's design into CNC Generate setup sheet	Accuracy and completeness	
Fabricate Product	Cell Teams	Depending on the component requirements: Machine and fabricate product Sheet metal steps may include punching, braking, deburring, and welding	Meet customer specifications Optimize equipment utilization Reduce cycle time C _{pk} ratio of 2.0 or greater.	Process Control Charts C _{pk} = 2.0 or Better Scrap and Rework Costs NCPR Defect Reporting
Finish Product	Cell Teams	Depending on the component requirements: Painting Plating Silk-screening Part marking	For painting and plating, gloss and thickness of coating For silk-screen and part marking, meet customer specs and reduce cycle time	Customer Returns Customer satisfaction with quality, cycle time reduction Equipment Utilization
Assemble Product	Cell Team	Assemble finished product with hardware and/or electrical/mechanical items	Meet customer specifications Reduce cycle time	Work center on-time delivery performance Actual versus Quoted Run Time (Cycle Time)
Deliver Product	Shipping	Package product Complete required paperwork	Correct paperwork Correct product delivered Reduced packaging costs	Scrap and Rework Costs Customer Returns

Figure 6.2 Process Improvement Process



Process owners work with the other members of their own team to determine key requirements internal to the department or cell.

The need for new support services or upgrades to services is determined by the SEL and KSC teams during strategic planning and at quarterly reviews. New support services required for manufacturing processes are defined and designed as part of the new service design process.

For internal support services, the department establishes a team to design or improve the service. For company-wide projects, such as the implementation of the new computer system, a cross-functional team is formed by the SEL/KSC to determine requirements and design the process. After determining requirements, process owners collaborate with members of their support area to design the processes associated with the area. This includes determining and implementing the appropriate process and output measures necessary to evaluate support process performance.

Our support teams maintain the performance of support processes by monitoring and improving key process measures. Each team has process goals and measures tied to corporate goals and to external/internal customer requirements. All teams have goals to achieve training hours per team member and leader, to minimize safety incidents, and to reduce cycle time. Figure 6.3 shows representative process measures for each support process.

Support teams conduct surveys of internal customers to gain feedback on service levels and satisfaction. The materials team tracks problems with the procurement process, including problems with upstream processes. All support teams receive the results of external customer surveys.

Support process owners work with the KSC to assess and improve their process performance using the Process Improvement Process methodology shown in Figure 6.2.

SEL and KSC members assist support teams in identifying opportunities and targets for benchmarking to achieve breakthrough improvements. Support team members are encouraged to research alternative technologies to help streamline tasks and improve customer support.

Support Processes

Figure 6.3 shows our support team processes with their process requirements. Support process owners determine their requirements by analyzing input received from the key stakeholders of their processes. Input is gathered internally through satisfaction surveys and at meetings such as KSC meetings, Leaders meetings, and Safety Committee meetings.

Figure 6.3 Support Processes

Support Team	Processes	Requirements	Measures
Materials	Procure, track, and expedite materials and services Maintain inventory accuracy	Purchase request response time Accurate reporting of supplier delivery performance Accurate inventory measurements.	Inventory accuracy Scheduling performance Supplier delivery & quality ratings
Maintenance	Establish and maintain service schedules for all KARLEE vehicles, machinery, buildings	Reduced equipment down-time and reduced number of accidents resulting in injury	Maintenance cycle time Machine down time # Accidents resulting in injury
Accounting	All accounting processes	Month-end cycle time A/P cycle time A/R cycle time Payroll accuracy	A/P cycle time A/R cycle time Payroll accuracy Month-end cycle time
Information Systems	System installation Computer training System support	System and data availability Ease and speed of data access.	Computer down time Data access time
Team Resources	Recruiting Orientation and training Team member surveys Maintain benefit programs Maintain team member records	Accurate match of new team members to job requirements Response time for data	Team member turn-over & absenteeism rates Cycle time for data distribution
Training	Maintain and publish in-house training schedule Coordinate resources to meet training schedules Maintain records of community service Develop and maintain training materials Assist in classroom training	Types and number of classes provided Accurate records of team member training and community support	Accurate training records by department Class attendee evaluations Accurate community service records

Supplier and Partnering Processes

KARLEE’s supplier and partner management is distributed among process owners throughout the company in order to maintain decision making at the most knowledgeable level. This is supported by the centralized database system that is used to track suppliers and their performance. The Purchasing team establishes partnerships with suppliers, evaluates their delivery performance, and provides them with feedback. The top 10 key suppliers represent 63% of our purchases based on dollar volume.

Thirty-three suppliers for about 150 purchased products are specified by our customers. These suppliers are single-source, provide specialized products, or are pre-qualified by the customer.

Our use of customer-specified suppliers assures our customers control of the uniformity, quality, and reliability of the end product. KARLEE’s purchasing team manages these suppliers in accordance with contractual obligations established by our customers.

KARLEE's supplier performance is managed by the materials team. This team is comprised of purchasing, receiving, inventory, scheduling, and shipping. The requirements for our suppliers are 100% on-time delivery and quality to specifications. Requirements are communicated to our suppliers through:

- The Supplier Symposium
- Regular meetings with suppliers
- Joint meetings with suppliers and customers

KARLEE has an approved supplier program to verify the adequacy of current suppliers and subcontractors and qualify potential suppliers. Purchasing or customer service may request a quality survey of a supplier or potential supplier. A sample lot size for first builds are inspected for all quality specifications.

Purchasing monitors on-time delivery for the top 10 key suppliers. The monitoring of quality requirements are performed in the production areas. Subcontracted material is inspected in the shipping and receiving area. Material or product received from suppliers and subcontractors found to be defective is segregated and documented through a Notice of Rejection (NOR) form by the team member performing the inspection. The form is forwarded to the QA team to initiate corrective action. We meet with suppliers to resolve any recurring quality problems. The top 28 key suppliers receive a monthly report card from purchasing that shows on-time delivery and quality performance.

KARLEE has a ship-to-stock program for raw metal and hardware suppliers. This program allows suppliers who consistently meet all performance requirements for a specified period of time to ship to stock without incoming inspection. We use JIT concepts for ordering raw metal materials, sending orders, and receiving materials as we need them to fill customer orders. We also have consignment replenishment programs where suppliers replace stock as it is used throughout the month.

The SELs evaluate supplier performance, supplier satisfaction survey results, and our supplier management program during strategic planning. The SELs identify goals and targets for materials management and supplier management for the coming year. The Management Team Leaders and the materials team work with our suppliers to develop and implement plans to meet those goals. Programs to help suppliers improve their performance include:

- Annual Supplier Symposium for our key suppliers to communicate supplier requirements and present a Supplier of the Year award.
- Encouraging our suppliers to implement EDI to reduce cycle time and errors.
- Annual supplier satisfaction survey to rate our performance with respect to suppliers and identify opportunities for future improvements.
- Supplier audits and assistance in improving the quality of supplier performance, materials, and services.

The Materials team manages and improves the supplier/partner processes. The team organization uses information from four sources: supplier performance measures, Notice of Rejection measurements, KSC meetings, and supplier survey results. The Materials team follows the Process Improvement Process shown in Figure 6.2. Improvements to supplier processes are communicated during the KSC and Leaders meetings. Improvements have included:

- Consignment program with high volume suppliers to ensure a consistent supply of product and reduced inventory liability.
- Expansion of ship-to-stock program to suppliers for electrical-mechanical assemblies/enclosures.
- Installation of additional raw materials racks to reduce next day deliveries and eliminate late deliveries.

Results

7.1 Customer Focused Results

Figure 7.1-1 Overall Customer Satisfaction



Figure 7.1-1 shows an overall customer satisfaction rating of 1.97 for 2000. In 2000, we revised the customer satisfaction questions and scale, which resulted in lower ratings for most of the questions. Using the prior rating scale, our overall rating would have been 1.36 for year 2000. Our goal for 2000 was 1.50. We still exceeded the satisfaction rating of 2.0 for a local competitor. The competitive information is from a blind benchmarking study of local KARLEE competitors conducted at the beginning of 1999 by the Hogan Center for Performance Excellence (Hogan).

Figure 7.1-2 Customer Satisfaction with Corrective Actions

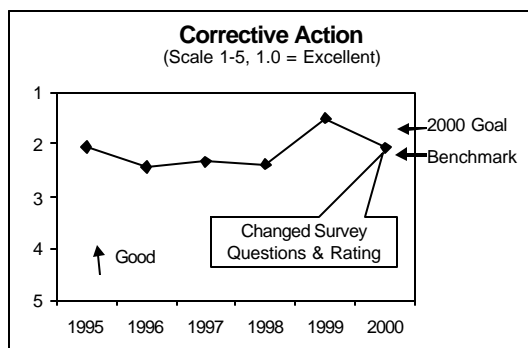


Figure 7.1-2 shows our customers' satisfaction with response time for corrective action. To further improve performance in this area, the Quality Department assigns a Customer Service Specialist to assist each customer service team in expediting corrective action for customer problems and concerns. Figure 3.2 shows our improved problem resolution process used to address customer questions, concerns,

or problems. The year 2000 rating was 1.89. Adjusted to the prior rating scale, the 2000 rating would have been 1.21.

Figure 7.1-3 Customer Satisfaction with Scheduling Lead Times

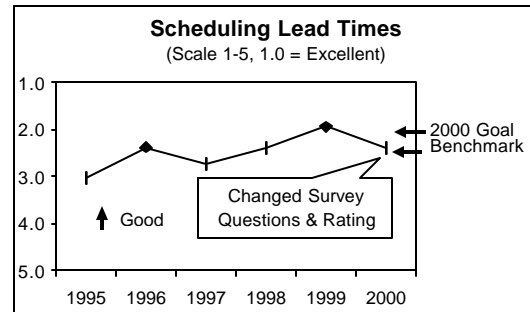


Figure 7.1-3 shows customers' satisfaction with our ability to meet their scheduling lead times. We received a 2.41 rating in 2000. Adjusted to the prior rating scale, the 2000 rating would have been 1.73. In 1998, we assigned schedulers to specific customers. This allows the Scheduling Team to work closely with the Customer Service team, and the customer, to determine initial requirements and to quickly respond to changes in scheduling. We have not yet reached our goal of 1.75 and are continuing to address this critical requirement.

Figure 7.1-4 KARLEE Quality Performance

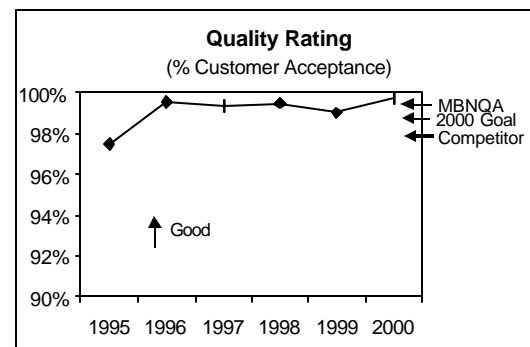


Figure 7.1-4 shows KARLEE's ability to produce components to customers' specifications based on their acceptance rate of our products. This measure is the percent of components shipped that are rejected by the customer. The measure is weighted for the cost of the component, so that a \$5000 component has a greater impact on the quality rating than a \$500 component. This rating shows a sustained positive trend even as

our production volumes continue to grow at a rapid pace.

This performance is the result of continuous improvement over several years to our production processes. We use performance data and problems reports to identify areas of improvement. We ask each production team to reduce the top three types of defects each quarter. For Year 2000, our quality performance has increased to 99.74%, exceeding our 2000 goal of 99.6%

7.2 Financial and Market Results

Figure 7.2-1 Revenue Vs. Productivity

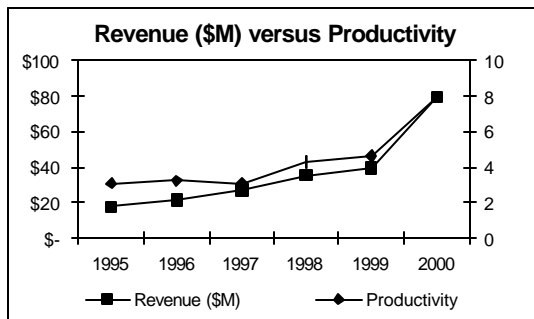


Figure 7.2-1 is an indicator of our success in managed growth. Since 1995, we have achieved an annual average increase of 39% sales growth. We have continued to achieve improvements in our labor productivity index over the same period with an average annual improvement of 24%.

7.3 Team Resource Results

7.3-1 Team Member Satisfaction

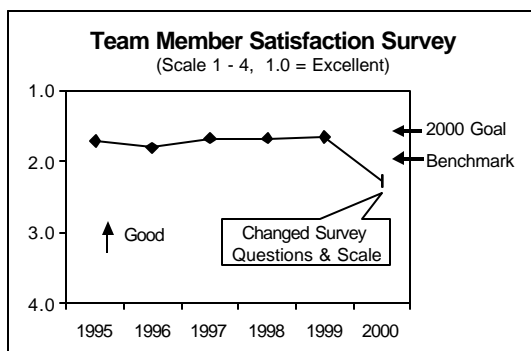


Figure 7.3-1 shows the results of team member satisfaction surveys. During 1999 strategic planning,

the KARLEE Steering Committee decided to change from the internal survey to a third party survey to better assesses team member satisfaction and gain access to more detailed comparative data. The first third-party survey was conducted in April 2000. The new survey contains different questions and a revised rating scale. The overall rating for 2000 was 2.26.

Hoshins were selected for 1998 and 1999 to address team member satisfaction issues. Figure 7.3-2 shows several of the issues we addressed through these Hoshins. These questions were not asked in the new third-party survey.

7.3-2 Team Member Satisfaction Issues Addressed through Hoshins

Question	1996	1999	Gain
I enjoy my job at KARLEE	1.56	1.40	10.3%
I believe that KARLEE is a better place to work compared to last year	1.81	1.70	6.1%
I receive sufficient recognition for a job well done from my team leader	2.61	2.10	19.5%
I would recommend KARLEE as an employer to a friend	2.89	2.3	20.4%

7.3-3 Team Member Training

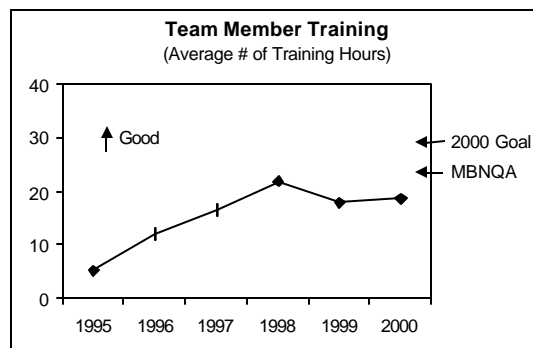


Figure 7.3-3 shows a steady increase in team member training hours until 1999. On-the-job training was reduced in 1999 due to a reduction in new team member hiring. The 2000 goal for team member

training was 30 hours. Team members received an average of 18.7 hour training in year 2000.

7.3-4 Turnover Ratio

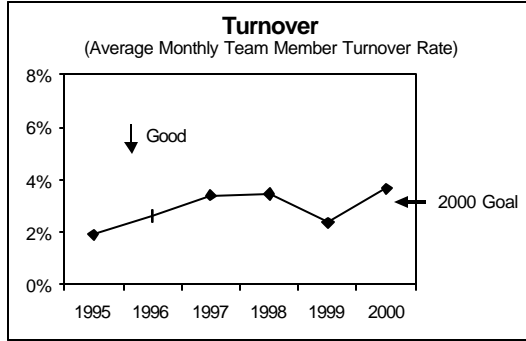


Figure 7.3-4 shows trends in team member turnover ratios. Benchmarks for turnover rates are not available. Turnover increased in 2000 to 3.7%. Our goal was 3.0%. This higher level of turnover in 2000 was due to a large increase in new hires. Forty percent of our turnover occurs within the first 90 days of employment. Causes for turnover in this trial period include the physical demands of the job, unfamiliarity with a manufacturing environment, mismatch to our team culture, or poor performance.

We conduct annual compensation benchmark studies to determine if we are paying competitive rates. As a result of these studies we have redefined job descriptions and upgraded compensation for a majority of the job positions at KARLEE. We have reduced reliance on skilled metal workers through increased use of robotic brake and weld equipment.

7.4 Supplier and Partner Results

7.4-1 Metal Supplier Quality

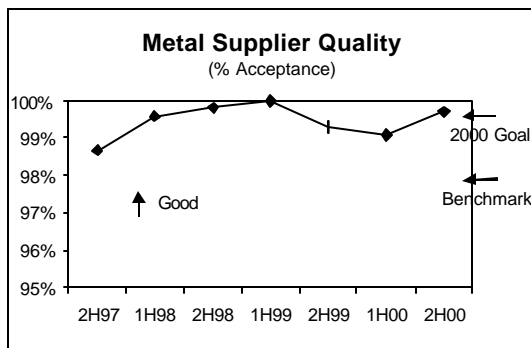


Figure 7.4-1 shows the quality ratings for our top five metal suppliers. These ratings are based on Notice of Rejection forms that are used to indicate lack of supplier conformance to our quality requirements. Strong partnerships with our suppliers enable us to quickly resolve quality issues. Our suppliers have accepted full responsibility for quality of their product. Our metal suppliers' quality performance was 99.7% in 2000, exceeding our goal 2000 of 99.5% and the Hogan benchmark of 98%.

7.4-2 Hardware Supplier Quality

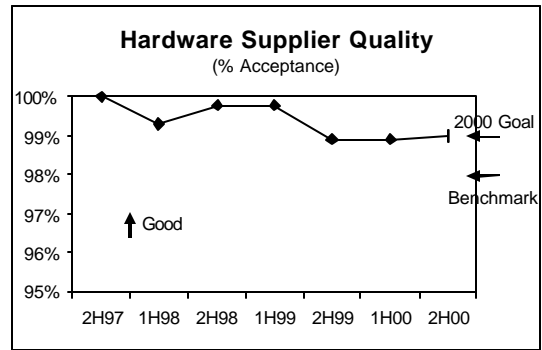
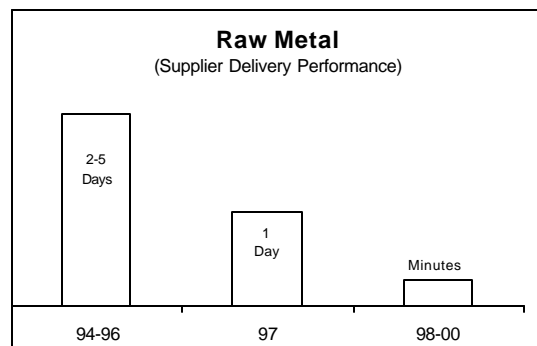


Figure 7.4-2 shows the quality ratings for our top five hardware suppliers. Overall hardware supplier quality performance has been excellent. Isolated lot rejects (mixed components, gasket issues, rivet problems) are researched and corrected to prevent reoccurrence. Our hardware suppliers' quality performance was 99.0% in 2000, meeting our 2000 goal of 99.0% and exceeding the Hogan benchmark of 98%.

Figure 7.4-3 Raw Metal Delivery Time



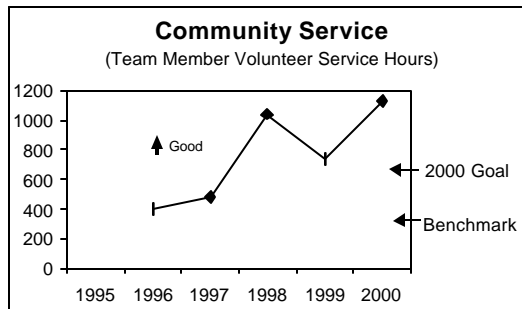
Machining and sheet metal fabrication are our core services. The ability to secure raw metal in a timely fashion is critical to meeting our customers' expectations. Until 1997, we procured metal by

placing a purchase order and waiting the specified lead-time (2-5 days) to receive the product. To reduce cycle time to our customers, KARLEE implemented a JIT program for metal product. Suppliers keep pre-cut product ready for our use. Once the purchase order is provided to the supplier, the product is delivered the next day, reducing the metal receipt cycle time to one day. (Figure 7.4-3).

Since 1998, KARLEE implemented a consignment program with the top two metal suppliers. Suppliers store up to 1 week's worth of high volume metal products at KARLEE, at the supplier's expense. The supplier manages the inventory against a minimum and maximum level at our facility. As the metal is used, the supplier replaces up to the maximum level and invoices KARLEE. This has reduced cycle time for metal products from days to minutes.

7.5 Organizational Effectiveness Results

Figure 7.5-1 Community Service Hours



KARLEE leadership and team members actively support the community. Service hours include tutoring at a local elementary school, presentations to civic organizations, and participation in community and charitable activities such as March of Dimes and City of Garland board meetings.

As shown in Figure 7.5-1, we donated 1131 community service hours in 2000, significantly exceeding our goal of 750 hours and the Hogan benchmark of 200 hours. SELs led by example by contributing 38% of those hours.

Figure 7.5-2 Waste Reduction

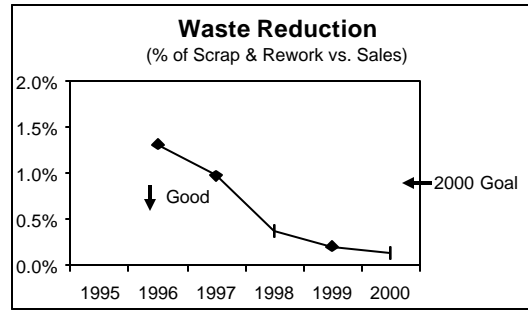
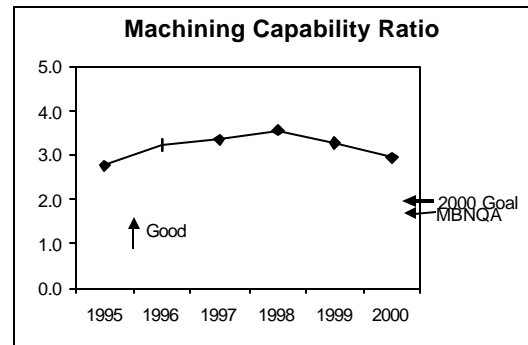
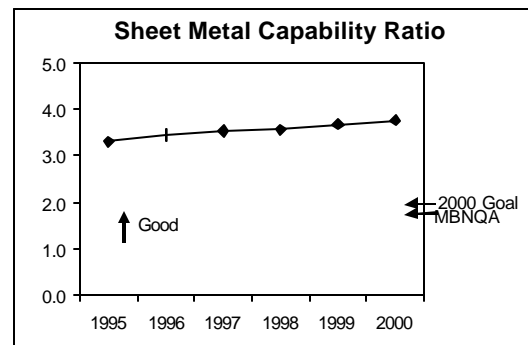


Figure 7.5-2 shows our scrap and rework costs as a percent of sales. Scrap and rework rates are measured at the department and cell team level, and are posted on the team bulletin boards. Improvement in waste reduction is accomplished at the team level through root cause analysis and corrective action. We continue to exceed goals in waste reduction. Scrap and rework costs were .14% of sales for 2000, exceeding our goal of 1%.

7.5-3 Machining Capability Ratio



7.5-4 Sheet Metal Capability Ratio



Figures 7.5-3 and 7.5-4 show machining and sheet metal process capabilities. Data collected from control

charts throughout the manufacturing area are used to calculate the C_{pk} (Process Capability) on a quarterly basis. This data shows the ability of our metal processes to produce quality product. Benchmarking data with a MBNQA recipient from our industry indicates KARLEE's high level of performance.

Process capability values are determined for all machining and sheet metal equipment and are monitored to ensure they remain over 2.0. Any machine or piece of equipment that drops below the 2.0 C_{pk} level is repaired internally, overhauled by the manufacturer, or removed from production service.

7.5-5 Cell Team Delivery Performance

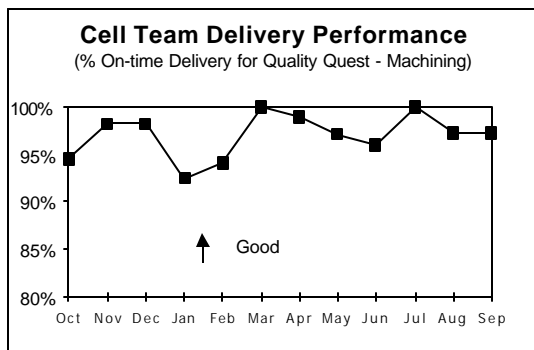


Figure 7.5-5 shows the internal on-time delivery performance (job start time) for Quality Quest, a machining cell team. Internal delivery measures the time for delivery to stocking locations, not necessarily the external performance from a customer's perspective.

Production cell teams receive a monthly report of their internal delivery performance. This report identifies their variance to the standard measurement. Although a team may be affected by issues outside their control (material shortages, equipment downtime, schedule changes) they must identify why they fell below the target level and determine actions to remedy the situation.

Figure 7.5-5 is representative of the reports that are posted on a team's bulletin board. This information is reviewed by the cell team during their team meetings and by the KSC during walk-around bulletin board evaluations. Actual reports show performance for the current year (month-by-month basis) and the performance for the two previous years (annual average).