

Commercial Relationships Now and into the Twenty-first Century

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The steel and ferro-alloy industries have much in common. We are both basically converters of raw materials, and globalization and strategic alliances will have a major impact on our future. Our biggest challenge will be the fulfilment of each other's expectations. These expectations include quality, reliability, technology, cycle time, competitive and stable costs, and financial strength.

To fulfil these expectations, the buyer will become more technologically oriented, accountable for supplier performance, and more profit oriented. The supplier will become part of his customer's manufacturing process. For this to occur, both the supplier and the consumer must understand each other's business dynamics, including inherent position, strategy, and cost.

Measurements of supplier performance will expand and will be used as a criterion for the selection of suppliers and a continued consumer-supplier relationship. Consumers will require suppliers to develop corrective-action plans. Supplier performance that merely meets the expected quality parameters on a competitive basis will become commonplace. Continuous improvement, service, innovation, and partnership will be the major qualities differentiating suppliers. A closer relationship will be formed between supplier and consumer, which will be accomplished by greater communication and a clear understanding of each other's strengths, capabilities, and strategies.

The Twenty-first Century

I would like to share with you my views regarding commercial relationships now and into the 21st century. The steel industry has many things in common with ferro-alloy producers. Essentially, we are both converters of raw materials for use by our customers. Sharing this common position, what we face in the future has many similarities. To properly focus on our future commercial relationship, we must first reflect on what the future holds for our industries.

On a global basis, more firms will band together horizontally into strategic alliances, as well as vertically back through the supply chain. In the USA, recent mergers with Japanese and European steel companies have affected most major steel producers. As noted in Table I, most major US steel companies have formed strategic global alliances¹.

TABLE I
GLOBAL ALLIANCES MADE BY US STEEL COMPANIES¹

USX Corp	Kobe Steel
LTV Corp	Sumitomo Metal
National Intergroup	NKK
Armco Inc.	Kawasaki Steel
Inland Steel	Nippon Steel
J & L Specialty	Usinor-Sacilor
Copperweld	Daido
Nucor	Yamato Kogyo
Wheeling-Pittsburgh	Nisshin Steel

Huge amounts of money will be needed to stay ahead in technology and to improve established manufacturing operations. Firms will get smarter on how to use their existing facilities, and will maximize their incremental production capabilities. Within the past four years, the US steel industry has invested 12,6 billion dollars to improve its technological capabilities². This is in response to a drive towards continuous improvement to fulfil its customers' ever-increasing demands for higher and more consistent quality.

Third-world countries will represent major new markets for steel products. They will also become more competitive on the manufacturing scene. Countries that possess raw materials will further process these raw materials to develop value-added commodities for export.

In selected industries, we shall find significant pockets of over-capacity and fierce competition. The ferrochromium industry, as noted in Table II, is a typical example of expansion exceeding demand, and has as a result become fiercely competitive³. This fierce competition will continue until demand approaches the in-place competitive capacity.

There will be a significant increase in the sharing of product development. This will aid in driving quality up and cost down, particularly from a value perspective.

The age of capability is upon us, diminishing the importance of capacity alone.

From a purchasing perspective, a desire to gain a sustainable advantage in the marketplace through effective sourcing has developed, and will expand rapidly.

TABLE II
ESTIMATED FERROCHROMIUM PRODUCTION³

Western World	Share of capacity, %
South Africa	68
Japan	70
India	46
Zimbabwe	84
Finland	83
Italy	32
USA	19
Other	61
Average production	63

Steel and the Ferro-alloy Industries

We shall now focus more narrowly on our particular industries and how they interface into the future. As previously stated, both the steel industry and the ferro-alloy industry are primarily converters of raw materials. Approximately 60 per cent of our total production costs are attributed to purchased materials and services, primarily raw materials.

As a manufacturer of raw material, our product is viewed by our customers as a commodity and must exist in a commodities' environment. This environment is now globalized, and can no longer be addressed by geographic region. Furthermore, there is no reason to expect the cyclical nature of our business to differ from historical cycles. The reduction of trade barriers and the opening of the Eastern Bloc countries will only expand the globalization of our industries.

In facing the challenges that this scenario brings forth, the sourcing strategies of both the producer and the consumer are fairly similar in nature. The first and foremost challenge facing all of us is to focus properly on each other's expectations, which are as follows:

- Product quality
- Reliability
- Technology
- Cycle time
- Competitive cost
- Cost stability
- Financial strength.

The first expectation is the desire by both supplier and customer for product quality. The old adage that the product is good enough is no longer good enough. Minimum acceptable quality levels will no longer be tolerated by our customers. A drive towards continuous improvement and zero defects is the only acceptable approach in our commercial relationship. As shown in Table III, an acceptable quality range of 99 per cent yields 10 000 defects per million. The drive towards 3, 4, and 6 sigma defect measurements is the goal of many American manufacturing companies, and

TABLE III
QUALITY EXPECTATIONS

Performance	Defects p.p.m.
99%	10 000
3 sigma	2 700
4 sigma	63
6 sigma	3

must be the goal of everyone at this Congress.

Once quality expectations are clearly understood, reliability becomes the next primary expectation. Reliability is usually measured by on-time delivery, which aids in cost control, lower inventories, avoidance of obsolescence, and therefore proper product management.

Staying on the cutting edge of technology will be one of the factors differentiating suppliers. The cost-effective, superior, competitive position that technological development will yield must also be accompanied by proper cycle time. Responsiveness to technological requirements must be addressed and completed by the supplier in what might be considered today to be record speed.

The drive towards globally competitive prices for all major cost components in the manufacturing cycle will be essential. We must provision our companies with competitive raw materials. We cannot start the manufacturing cycle from a point of competitive disadvantage. Globally competitive prices must also include stability in pricing, so that manufacturing costs and margins can be maintained.

Finally, we must all focus on partners in business who have the financial strength to withstand the business cycles in the long run.

Customer-Supplier Relationship

To deal with the changing commercial relationship of the future, the buyer must possess increased talent and skills. The buyer in the 21st century will be more educated in the technical, engineering, and financial arenas, and will possess training of a specific quality centred on statistical process control, continuous improvement, total quality management, the principles of supplier partnering, and strategic planning.

There will be a de-emphasis on administrative activity and a significant increase in strategic planning. The accelerated information flow will allow the buyer to make a more accurate and more effective evaluation of the strategic alternatives in fulfilling his company's objectives. Buyers will be responsible for early supplier involvement in the development, design, and competitive sourcing of the products they purchase.

Purchasing will be a profit-orientated, value-added function for, if it is not adding value, it is simply adding cost. To this end, buyers will be accountable for their suppliers' performance. A buyer will, as the conduit between his company and the supplier, act as a primary resource in fulfilling his company's expectations.

The change in this relationship between supplier and consumer will centre on increased communication. This communication will start with an understanding of the dynamics of each other's business. This understanding will lead to a team approach in problem solving, quality enhancement, and cost reduction.

This closer relationship will lead to the supplier becoming part of his customer's manufacturing process. Suppliers will need to be competitive on a total-value basis, including all facets of their relationship. This closer bonding will lead to a smaller supplier base and, in many cases, single sourcing. Large bidders' lists and frequent competitive inquiries will become the exception.

As, noted in Figure 1, 91 per cent of the companies responding to a recent survey, and 85 per cent of all the purchasing departments, had strategic plans². A closer examination of these strategic plans (Figure 2) indicates

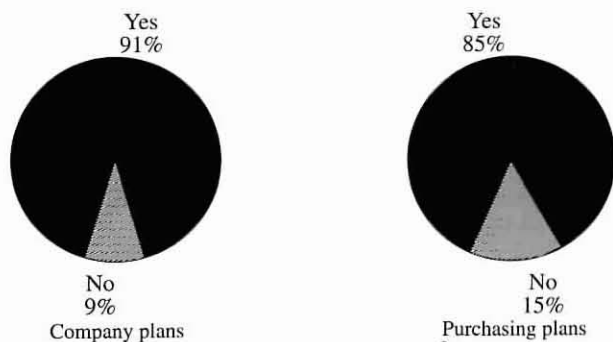


FIGURE 1. Strategic planning²

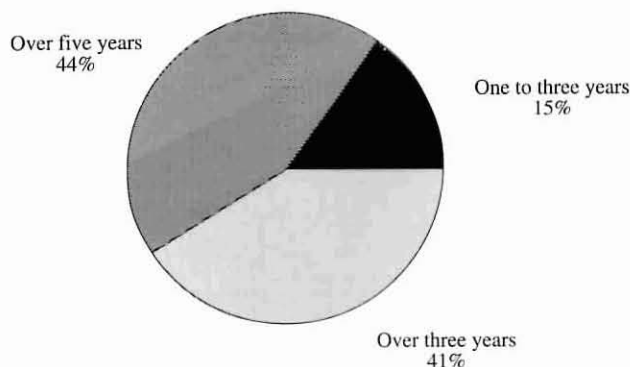


FIGURE 2. Strategic forward planning in purchasing²

that 15 per cent went out one year or more, 41 per cent went out three years or more, and 44 per cent went out five years or more².

In the final analysis, the ultimate goal will be for the customer-supplier relationship to be the business relationship of first choice for both parties.

Business Dynamics

To attain this relationship, both the supplier and the consumer must understand each other's business dynamics. These business dynamics centre in three primary areas: inherent position, strategy, and cost.

The inherent position, which in many cases falls within the category of uncontrollable factors, includes raw-material sources, location of producer and consumer, government influence, and available labour force.

Strategy is in many cases influenced by the inherent position. Depending on the location of the raw materials, strategic planning must be developed to provide a continuous supply of high-quality raw materials at a competitive price.

From a political perspective, government influence regarding the employment of people and social commitment must be taken into consideration. This influence may cause unnatural economic considerations to persist, not only in the short term, but also in the long run.

Owing to the globalization of our industries, we must develop a strategic plan concerning our natural or preferred marketplace. A decision must be made regarding risk/reward planning in the development of long-term reliable sources at competitive prices. These strategies have a significant impact on the partnership of supplier and consumer.

Finally, we must look at cost dynamics, for only the low-cost, high-quality suppliers will survive in the long term. Cost dynamics begins with competitive raw-material costs.

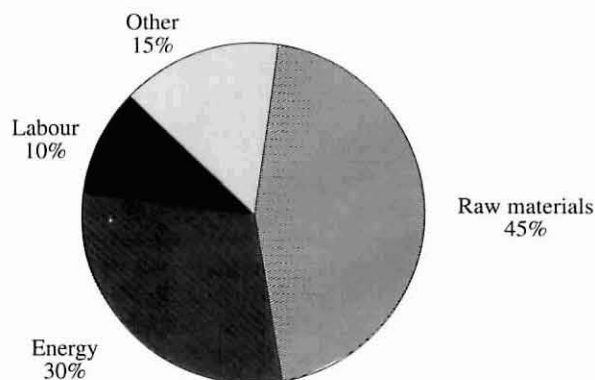


FIGURE 3. Approximate distribution of costs for a producer of basic raw materials

As noted in Figure 3, raw-material costs typically constitute approximately 45 per cent of the manufacturing cost of ferro-alloys, followed by energy and labour⁴.

In summary, the supplier and the consumer must be significantly more aware of all the dynamics that they face in their daily and long-term strategic planning.

Supplier Performance

Once strategic partnerships have been developed, the performance of the supplier must be measured. To achieve this, standards must be set by both the supplier and the consumer regarding product performance, with some agreement as to the means of measuring performance. This measurement of product performance will be dynamic, for standards will continuously improve towards higher-quality and cost-effective materials with zero defects. Communication between the supplier and the consumer will again be the cornerstone of this evaluation.

Once these standards have been set and performance is measured, the evaluation will be communicated freely, and appropriate corrective action taken where necessary. This communication will lead to a plan for continuous improvement, the focal point of which will be total process control. Process control, when properly implemented, will assure product quality through each stage of production. The ultimate goal will be the minimization of inspection at the supplier's location, and the total elimination of inspection at the consumer's location. It will further reduce cost by avoiding reprocessing by the supplier or rejection by the consumer.

In addition to the closer communication between the supplier and the consumer, which will yield continuous improvement, suppliers will be benchmarked. This benchmarking will compare each supplier against the best supplier in each respective industry. As noted in Figure 4, a recent survey has indicated that 85 per cent of the respondents currently benchmark their suppliers². The criteria most commonly used in benchmarking, in order of preference, include conformity to requirements, cost control, reliability, technical competence, modern plant and equipment, process control, and new ideas.

This benchmarking, which has become commonplace in comparing the attributes of one function with those of another, has become significantly more commonplace in the supplier-consumer relationship.

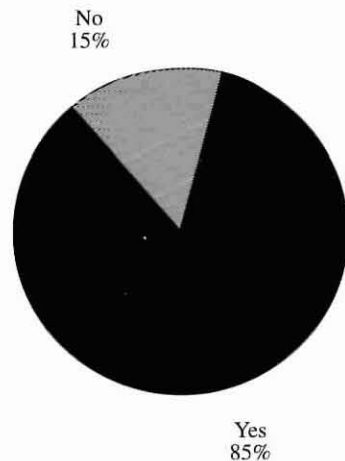


FIGURE 4. Benchmarking by companies²

Purchasing Survey

Finally, I would like to share with you the recent results of a purchasing survey in the USA concerning supplier-consumer relationships. This survey indicated that the respondents now review the performance of 70 per cent of all their suppliers, compared with 50 per cent just a few years ago².

Figure 5 shows that this rating system is primarily for quality, followed by delivery and service, then by price and technical expertise². The timing of reviews with suppliers has been reduced significantly to quarterly and monthly periods, as opposed to an annual review as shown in

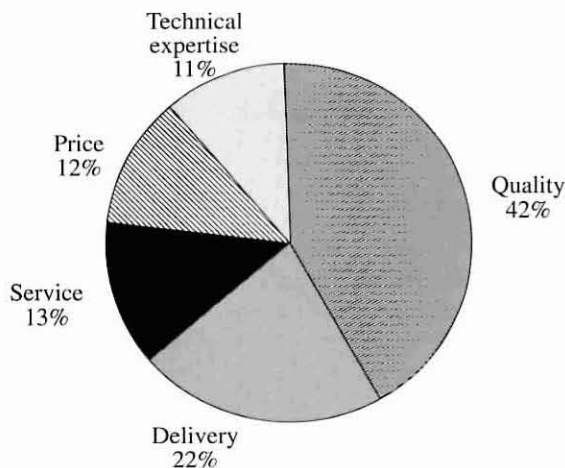


FIGURE 5. Basis of supplier rating²

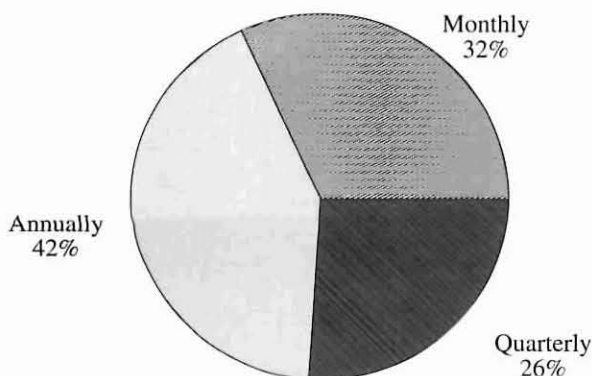


FIGURE 6. Timing of supplier review²

Figure 6. This further supports the increased emphasis on communication between supplier and consumer.

The driving forces behind the supplier performance rating in order of importance in a recent survey of purchasing agents in the United States include quality, cost, avoidance of inspection, a reduced supplier base, and improved delivery.

Figure 7 indicates the distribution of consumers' responses to suppliers who do not perform to the consumers' expectations². Over the past few years, the assistance provided by the consumer has decreased, with a corresponding increase in the expectation of self-corrective action. We

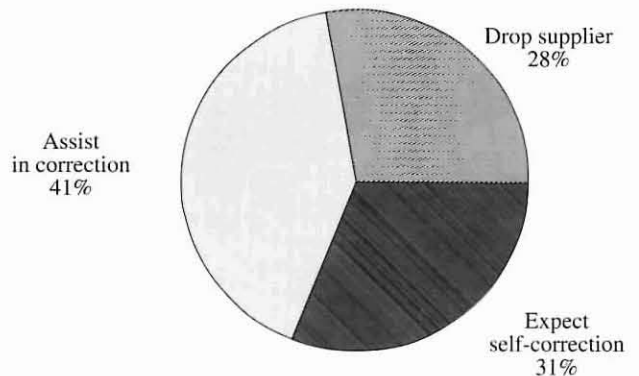


FIGURE 7. Response to performance rating²

would expect this trend to continue, placing increased emphasis on corrective-action planning by the supplier.

On the positive side, Figure 8 indicates that suppliers who

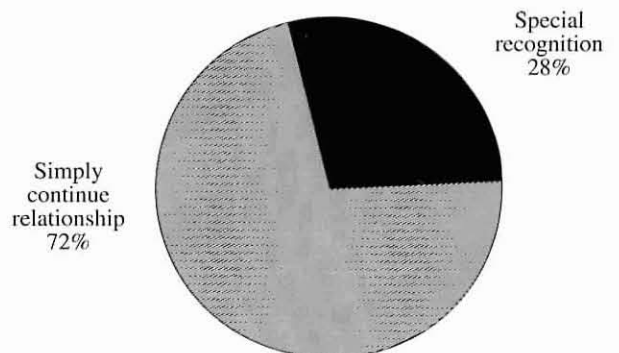


FIGURE 8. Supplier recognition²

do perform are rewarded with continued business relationship².

The results of these surveys are a further indication that buyers expect their suppliers to perform to a greater level of proficiency. The future emphasis will be on continuous improvement as the differentiating element between those who merely meet the current requirements and those who will continue to prosper in the future.

Summary

In conclusion, supplier performance that meets the ever-increasing quality parameters on a competitive basis will be commonplace. Continuous improvement in the product and services provided by the supplier, together with technological innovation, risk sharing, creative financing, and the other elements discussed earlier, will separate the successful supplier of the future from those who will lose their

market share and eventually disappear from the scene. This differentiation can be accomplished only with greater communication between supplier and consumer, and a clearer mutual understanding of each partner's strengths, capabilities, and strategies.

References

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2. *Purchasing*, 17th Jan., 1991.
3. Middelburg Steel & Alloys (Pty) Ltd, 1991.
4. Republic Engineered Steels Inc. Survey.

