1989

International Purchasing

Mary Gisi

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Mary Gisi, B.S.

A Culminating Project Presented to the Faculty of the
Graduate School of Lindenwood College in Partial
Fulfillment of the Requirements for the
Degree of Master of Business Administration

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ABSTRACT

The purpose of this research is to examine the factors of why the purchasing professional is procuring foreign vs domestic commodities.

This paper will review the early history when the U.S. started to buy goods offshore and continued over the years to expand their foreign vendor base.

An examination of literature and periodicals have suggested the reasons why the purchasing professional will need to expand his/her foreign vendor base of companies as to assure that the quality, technology and availability of needed materials will be at his/her disposal in order to compete in the global market place.

To develop conclusions to support the theory of purchasing offshore, I have reviewed books, articles and conducted a survey among the St. Louis area purchasing professionals to determine a general appraisal on the reasons companies are now instituting foreign base suppliers due to the price, availability and technology.

Introduction

Offshore purchasing is not a new concept for U.S. buyers. Companies were procuring steel, shoes, and articles of clothing in the 1950's, and by the late 1970's offshore purchasing increased due to material shortages. During those years the needs and reasons changed as materials produced domestically declined due to price competition and U.S. companies' reluctance to make changes in their production procedures.

Price is still a large factor in offshore purchasing but other factors directly or indirectly relating to price have become important. Lower cost for products must meet competitions pricing, and if domestic suppliers will not meet this need, offshore sourcing for new vendors will be put into motion. As stated by K. J. Molleur, Purchasing Manager, Parker Manufacturing Company, "Our responsibility is to buy the best product at the best price. Our marketplace must be global and the United States must be prepared to compete" (Dowst 52).

The global market today is offering quality products at a lower price, unfortunately the United States has not kept pace with their foreign competitors. Specifically, quality and technology do work hand in hand demonstrated by Harley-Davidson's decision to pick Japan's Toyda Machine Works Ltd. over

a U.S. company to supply eight electronically controlled machining centers at $1.7 million (Cayer 50). Products, both domestic and foreign must be of the desired quality as specified and be more competitively priced in order to capture its share of the global marketplace from the purchasing professional.

With the marketplace growing larger everyday, the purchasing professional must utilize all information and technology that is available to him. Technology plays an important factor in the quality of a new product or the redesigning of old products. Japan has initiated a new concept of flexibility which measures the time on how long it takes to react to technology. They have incorporated quality and cost reduction into a new goal to improve flexibility (New 24).

Buyers, such as Harley-Davison, have found products are more readily available from offshore vendors. Harley-Davidson was unable to find a domestic supplier for carburetors due to the low volume required for their manufacturing of Harley-Davidson motorcycles. Consequently, Harley-Davidson located a Japanese manufacturing firm that would accept low volume orders (Cayer 50). Foreign sources are making their products more accessible each day, and this in turn meets the needs of the buyer in order for him to keep his plant operating more efficiently. Today's supplier must be

alert and knowledgeable about competition in order to keep his market share.

Purchasing professionals in the United States have altered their policies and practices concerning offshore buying over the past decade. In general, the quality of foreign products imported by U.S. buyers has increased dramatically, as purchasing professionals expanded their base of clients in order to remain competitive in the U.S. market. On the basis of this trend and the development of a global market, purchasing professionals must continue to expand their foreign vendor base of companies in order to assure the best price, quality and modern technology available. Also, the increased foreign vendor base, would sustain the availability of products as changes have diminished the accessibility of domestically produced materials.

Chapter 1

History

In today's business world, we think of importing as relatively a new idea. People may be surprised to learn that foreign purchases have been happening for a number of years, such as, purchases from Japan during the late 1930's.

In the years following World War II, companies started to buy steel, shoes, and some articles of apparel from foreign countries. Specifically, steel purchases were greatly altered after a labor strike that created an onslaught of imports to flow into the U.S. market place. The realization that these imports could last, led to an organized response where the steel industry tried to stop importing through plant modernization and government action (Adams and Dirlam 97). This initial phase of purchasing offshore was relatively small compared with today's purchases from foreign countries. The chart in Appendix A implies that over the past 14 years the purchasing professional has looked to foreign countries to increase his knowledge on what materials are available and how these materials will help his company produce products more efficiently.

Over the years between 1946 and 1971, the U.S. economy grew at a 3.3% annual rate and exports grew at a rate of 3.9%. During these years Japan and Western European countries also sought to increase their prosperity and solidify their reconstruction after the war. The years following the war, the era of the dollar gap, the U.S. national interest was best served by the most open arrangement possible because the U.S. economy was showing that it was an efficient producer of goods. The U.S. also enjoyed a trade surplus with every part of the world, but this changed in the late 1960's as the world economy changed. The Western European Countries and Japan heavily invested in new production facilities and in the most recent technologies, However, U.S. industries lagged behind. While the U.S. economy was growing 3% per year, European countries were averaging 4.5% and Japan 11% (Esmon, Jackson and King). Even with these statistics, the U.S. industries did little to rebuild and modernized their plant facilities in order to compete more efficiently in international trade.

From 1973 to 1975, buying offshore doubled from 21% to 45%. At this time there was a shortage of materials and buyers had to go worldwide to find a source for their goods to keep their plants running. With this material shortage in 1973 to 1975, there was a gradual inventory increase for the period of 1975 to

1982 of 45% to 56%. This increase in foreign purchase was due to the low cost of labor overseas, currency exchange rates, which encourged imports, competition from foreign firms and from domestic firms already using foreign sources (Dowst 52). A study done in 1978, indicated the larger the annual sales, the higher the percentage rate of buyers who bought from offshore. The findings are as follows:

Annual Sales	% of Buyers who Import
Under $1 Million	33%
$1 to 10 Million	37%
$10 to 100 Million	54%
Over $100 Million	65%

(Zenz 74).

World trade was increasing significantly among the nations. Thus, the increase in competition among industries and the low cost of labor abroad, buyers found offshore products produced a favorable side to the annual sales. Appendix B, indicates that until 1960, the dollar sum of U.S. imports plus exports was less than 10% of GNP. This increased to 12% by 1970 and by 1980 reached 25%. In the 1990's this proportion could range between 30% and 40%. Appendix C gives a comparison on how international trade has played an important role in the U.S. economy in the past years on

imports and exports. Reviewing these figures reflect the United States and other countries growing economic interdependence on products produced at a competitive price (Lippel 417).

Chapter 2

The Beginning of Foreign Competition and the Movement Towards a Global Market

As competition was growing in the U.S., it was growing by leaps and bounds in foreign countries. The global market place, in the last decade, expanded from within the U.S. boundries to the European Countries and moved into the Far East leaving in its path price competition. Meanwhile, the U.S. buyer discovered this expanding market arena and from 1982 to the present time, increased his foreign purchases considerably. These purchases incurred due to lower prices, which is the number one reason for buying offshore. Better quality occupies second place, followed by availability in third and technology, as implied in Appendix D, comes in fourth place. These items will be discussed in later chapters (Dowst 55).

As the world has shrunk in the international market place, competition for quality products are more demanding than ever before. This market now offers the buyer additional benefits, such as remaining competitive in price, availability of products that are in critical supply domestically but may be developed in foreign countries with the utilization of advanced foreign technology.

Over the years, General Electric, Whirlpool, Maytag, WCI and Raytheon consolidated, which now dominates the home appliance industry. Even with this consolidation, the microwave industry has been captured by the foreign companies and is now pursuing to take the lead in the compact refrigerators and freezers (Cayer 46).

Information has been compiled over the past years from surveys taken from firms that made their decision to purchase products form foreign sources. One survey taken in 1981 from eight firms, implied their single important factor was price. These figures showed a saving ranging from $2.5 million to $39 million, an average of $11.9 million. Along with these savings, the buyer also stated other benefits he realized by going offshore, such as: improved quality, exposure to more technology, and lead time reduction.

Again in 1983, research was compiled on the savings and benefits on the reasons why U.S. firms had their buyers go offshore to purchase from foreign sources. Analysis of the data was: the buyers were now experiencing more competition in lower prices, availability, quality, and technology of the product (Moczka and Giunipero).

Competitive prices has no boundries in the global market when it comes to finding a source for products. For example, General Binding Corp. present supplier was

unable to meet the requirements of a critical part needed on GBC punch and bind machine. Consequently, GBC was unable to locate a domestic source for this component part that was cost competitive and was forced to look offshore. With this push for locating a new source that was cost competitive, GBC now deals with numerous offshore vendors which amounts to 8% of its $1 million of overseas purchasing. They have found lower prices and receive higher quality products from its offshore suppliers. Even though the dollar had declined, the impact on the cost was not that crucial and GBC still realized a 30% savings. Domestic suppliers were advised that GBC is under constant cost pressure and have given them the opportunity to reduce cost (Cayer 98).

Global sourcing will become the challenge of the 1990s as purchasing strategy becomes the prime concern for companies intent on increasing their competitive edge in the market place. This will be a considerable extension of purchasing's preference, which up until now has simply been cutting material costs. The purchasing professional will not have to re-evaluate the procurement strategies and material importance in the global economy (Gardner 49).

Harry H. Eden, VP Operations, White Pullman Holt, Fultonville, N.Y. states:

> " As long as the economies of offshore sourcing are equally available to our competition, we must continue to expand sourcing for our 'non-core' products overseas. Only broad-based trade legislation that levels the global playing field would allow us to do otherwise" (Dowst 53-54).

Price and quality are the twin magnets causing purchasing to buy abroad, however, this apparently is exactly what is drawing purchasing back home to U.S. suppliers who are becoming more competitive. Currency fluctuation was cited as one of the major risks in overseas sourcing. However, the weakening of the dollar hasn't as yet scared off these purchasing professionals. Some have long term agreements that cover against wide swings in currency value. Many suppliers have resisted increasing prices to protect their market share. 73% of the respondents say the weakening dollar has had little impact on their overseas purchases (News 19).

Buyers today want the best quality at an affordable price.

Chapter 3

The Rise of Foreign Industry and the Improvement of Foreign Products

Quality of a product, regardless if it is purchased offshore or domestic is expected to feature the best characteristic of that product at the most economical price.

Respondents of a survey conducted in 1988, indicated that quality of domestic goods have improved over the past year. Appendix E shows that 56% of those surveyed noted that quality has improved, such as electronics, while 34% stated quality has remained the same with little or no improvement and 16% find quality in some products, such as castings and stampings, have steadly declined instead of improving. However, with this improvement, American industries and suppliers are striving to meet zero defects in their products, even though 47% of respondents report that 90% of goods received are meeting quality requirements, while 16% report satisfaction with 99% or more on incoming goods. Robert H. Alston, P.M. for Terrell Machine Co., Charlotte, N.C. sums up the state of affairs: "We have a long way to go" (Bradley 24).

Most buyers, 66% surveyed, have an optimistic view that quality will improve in the next year, while 32% do not expect any deterioration in quality, leaving

3% of buyers fearing quality will erode due to the strain of a booming economy placed on industrial capacity. So that this may occur, industry will need to pay special attention to maintaining their present quality level along with improvement to meet zero defects (Bradley 24).

The success, accomplished so far, in quality improvement has come through a constant working relationship with the supplier who is dedicated to excellence in their products. Suppliers are also encourged to institute quality measures, like statistical process control and in turn, receive recognition for upgrading their manufacturing procedures in their plants. Competition among suppliers will also motivate a company to improve his product (Bradley 24).

Even though, the U.S. buyers confidence in the quality of domestic made electronic components has improved dramatically, a downfall in the past was the attitude of the U.S. manufacture that if we made these components, the U.S. buyer had no alternative except to buy them. As a result, Japanese competition changed attitudes among U.S. manufactures by supplying a quality item at a low cost.

Nevertheless, with all of the improvements made, U.S. components are not seen as an equal in quality with the Japanese products, as there is still a

significant portion of the electronics buyers feel the Japanese component quality is superior to the U.S. For instance, there are still some problems with U.S. made components. Per Gary Foster, Purchasing Manager at CadCom, Maritta, Ga. Telecommunication Equipment Fire, states:

> "Some transformers we use have a severe packaging problem. Lower cost packaging implemented in the past year has increased damage in transit from 0% to nearly 10%."

A similar tale of woe comes from Muneer Dar, President of Dar Electronic R & D,:

> "Our components were supposed to be packed 10 per poly bag. We received 56,000 of these thrown randomly in any container the company could find. Repacking the components took two weeks" (Bluestine 54-55).

Japanese quality is regarded by many as superior, although Korean and European quality is often a close match. This is in marked contrast to American suppliers who due to lax quality control procedures and casual worker attitudes have in many instances experienced quality problems in the past. Consequently, the industry that this fact is more pronounced and evident was in the automobile industry where Japanese automobiles were able to capture almost

one-third of all car sales in the United States because of their fine reputation for quality (Scheuing 324).

Similarly, top management is aware that the quality of U.S. products still isn't good enough, despite of improvements that are being made. Ask the Japanese, who is winning the war on quality and their reply is, we will win and America will lose. U.S. CEO's are not so quick in accepting defeat; in fact things have begun turning our way in recent years. Jerry Jasinowski, head of the National Association of Manufacturing stated:

> "The dollar is down, exports are up and so are the earnings of U.S. manufacturing companies." Victory may not be at hand, he concedes, but at last it's within reach. "The chief fact is the American firms are more competitive than they were three or four years ago. Much of the recent exports surge is the result of relentless self-discipline and cost cutting by American firms to meet the challenge of international competition."

David Kearns, Chairman of Xerox states:

> "The U.S. has significantly closed the gap in quality when compared to our competition. However, there is still considerable improvement to be made--not only in the quality of the end products themselves, but more importantly in the manner or techniques in which the quality is achieved" (Semich 48).

Kearns cites an example in his own firm:

> "In the early 1980's Xerox launched an all-out effort to improve on the quality of the materials, components, and sub-assembly purchased from a world-wide supplier base. At that time, purchased components from the Japanese supplier base were performing at a 125 parts per million failure rate (0.0135% probability of failure), while components purchased from the U.S. supplier base were measured at a 10,000 to 20,000 ppm failure rate (1% to 2% probability of failure). Today, the components from the non-Japanese supplier base are a 350 ppm failure rate, while still not at the benchmark 125 ppm set by the Japanese, an impressive improvement has been made" (Semich 49).

Robert G. Potter, President of Monsanto Chemical Co. states:

> "The quality of goods and services provided by U.S. companies has improved considerably over the last five years; however, even with the improvement achieved, we still lag foreign competitors in select product areas--particularly products made in the Far East" (Semich 48).

Many U.S. suppliers will state they are meeting the demands for higher quality or use post-production manual inspection that their products are actually produced up to specification when not all of them really are. Baldor's Roland Boreham thinks the biggest quality-related weakness in U.S. manufacturing is a

lack of consistency in products. "Product performance has generally been better," he says, "but consistency and conformance just aren't as they were five years ago. We need more improvements here, while still maintaining the performance improvements." Most industrial CEOs agree with Boreham; when asked where the most work is still needed in the move towards high-quality production, most cite consistency (Semich 48-59).

Closely related to the quality issue is the level of technology. Whether it be picture taking, home entertainment, or steel making, Japanese producers have often invested substantial sums in state-of-the-art technology where American competitors hesitated to make such a commitment or even diversify into other industries. Electronic still imaging was pioneered in Japan, all VCR's are made there, and some of the world's most efficient steel mills are located in this island country. Meanwhile, Kodak has become more of an imitator than a leader, the American home entertainment industry is greatly diminished, and U.S. Steel has diversified into energy (Scheuing 326).

Chapter 4

The Rise of the Foreign Market and Application of Knowledge

A valuable asset to a countries economic relations it technology. There have been theories to indicate that all nations have equal excess to technology and there is no need to transfer it to one country to another. This assumption is not true in all cases since some countries lack knowledge more than others. Consequently, how to convey this international technology to all countries has not been solved.

Technology is inexhaustible and in order to put a value or price on it one must determine its productive capabilities. Once it is created, it can be sold or traded but its supply can never be obsolete. Furthermore, countries can buy, sell trade or produce its technology to better its own uses. This asset, can be acquired in several ways. First, produce the technological capability at home. Second, import it from abroad and third, import goods containing the desired technology. Each country must make its own decision on how this technology will benefit them with the least amount of cost. In addition, one country may trade its expertise to another country for its knowledge in order to acquire valuable information in another area. Other countries may buy, sell or produce

this knowledge in order to thrive in a global market (Endel-Jakob Kolde 200).

Productivity in America revolves around innovation and technology. With these new ideas and techniques in technology, American industries found a better way of getting things done, which gave us the computer, television, airplane and numerous amounts of tools.

Unfortunately, the U.S. is losing its ability to think up new ideas which in turn could lead to better products and services. Research and development was at its lowest from 1968 to 1979 in the U.S., but during this same period of time foreign competitors were investing a larger percentage of their total output on research. Statistic show that the number of patents filed by U.S. inventors declined from 76,000 in 1970 to 64,000 in 1975. In 1966, the U.S. granted 13% of all patents to foreign nations but by 1975 that figure had risen to 28%.

With this study, patents granted to foreign nation are on the rise, it is not surprising to learn that the U.S. is not turning out scientist and technicians at the rate we once did. This rate was 5.9% from 1954 to 1969 and by 1979 it slipped to 2.8%. On the other hand, Japan is producing new engineers at more than twice the U.S. rate (LeBoeuf 18).

As the U.S. is losing its technological edge by not investing in research, buyers will find themselves

developing new sources offshore to keep up with new technology. Business have invested money into research and development but at such a slow pace there is very little to show for it. New products are needed in today's industries if products are to be purchased domestic instead of offshore. The time factor for new products to be placed on the market is long and tedious. For example, in the 19th century, within a period of a few months of the invention of the electric light bulb and telephone, commercial installation had been accomplished of both items in London. Even in todays age, it will take 10 years to place a new product on the market (Drucker 108).

Each company has its own reasons to by offshore. For instance, one large electronics company has a policy of buying domestically even when overseas prices may be substantially lower, everything being equal. This company buys overseas only when the technical specifications and quality offered in foreign products are much higher than those offered in similar domestic products (Lee & Dobler 71).

Industries through out the world regard the importance of technology in its own way. A study did on Japanese firms finds them more flexible. The term "flexible" as used by the Japanese is those firms that can react the quickest to change. Flexibility can be measured by leadtime - the time it not only takes to

receive goods from suppliers, design and manufacture a new product, but also how long it take to react to a new technology, a change in product mix, or an upswing in market demand. U.S. firms are still preoccupied with quality and cost, which is all well and good, but to keep up with foreign countries U.S. firms must develop new technologies to keep up with competition. The Japanese have not lost their goal for quality improvement or cost reduction: rather, these earlier goals have now been incorporated in a new mission to improve flexibility, which in turns improves their technology, quality and cost reductions (News 24).

In the past two decades, the international performance of U.S. industries was deplorable. In 1960, America produced over a fourth of the world's manufacturing exports. However, America's share in the seventies alone cost us at least 2 million industrial jobs and $125 billion in lost production. Meanwhile, as U.S. industry lost ground abroad, imports began to account for a higher percentage of all good purchased at home. Specifically, foreign cars (a negligible part of the American auto market in 1960) jumped to 28% by 1980. In 1960, about 95% of U.S. purchased consumer electronics (radios, televisions) were made in the U.S. By 1979 imports had captured more than half the U.S. market. In fact, importers have increased their U.S. market share almost 350% since 1960.

The net result is that the U.S. trade deficit is rising and wealth is being drained out of the country. In 1970 the U.S. had a trade surplus of $2.6 billion, but in 1981 the balance of trade was in the red by some $39.7 billion. As the late Senator Everett Dirksen remarked, "A billion dollars here, a billion there. Sooner or later it adds up to real money."

The sheer size of our domestic market has kept some of us from realizing that we have very strong international competitors, which is not a bad situation. The increased prosperity of Japan, West Germany, France Sweden, and other countries means increased potential for U.S. exports if we are smart enough to take advantage of it. Our corporations and government must make a greater commitment to developing and expanding American markets abroad. For example, we have a competitive edge in areas such as high technology items and marketing expertise that could be readily packaged and sold to other nations. One thing is certain, if we want to increase the American pie, we're going to have to pick a few foreign apples (LeBoeuf 16).

Consequently, other countries want their piece of the pie and one of these countries is Japan. The pursuit of knowledge is a near-obsession with the Japanese. They realize that a high-technology, industrial nation needs information like a car needs

gasoline. Undoubtedly, the Japanese are the most avid learners in the world. This unending thirst for knowledge exhibits itself in many ways. Japan graduates over twice as many scientists and engineers as the U.S. and the level of mathematical and scientific instruction in Japan is reputed to be the highest in the world.

Japans ability to listen and learn has paid off in the international trade area. Instead of developing new products and trying to sell them, the Japanese listen very carefully to the customer and then give him the product that he wants. Thus, Japan is using their ability to listen to develop their technology skill (LeBoeuf 58-59).

In brief, the purchasing professional can draw from his foreign suppliers vast amount of knowledge regarding technological information. These suppliers can offer new and innovative ideas to the U.S. buyer in addition to cost savings, quality and equally important availability of the product.

Chapter 5

The Loss of Product Resource

Availability, quality and pricing survey was conducted among the U.S. electronic buyers indicating that availability was deemed for more important than quality and pricing. Also revealed was that there was a marked deterioration in Japanese service and deliver to U.S. customers.

However, even with the deterioration problem with service and delivery, the survey probed attitudes towards "Buying American." It found that buyers would prefer to buy from U.S. suppliers but can't mainly because of pricing and availability concerns, not quality problems. As indicated in Appendix F, when asked about their company's attitude towards buying offshore, only 17% of respondents indicated that quality problems were keeping them from buying American made. A much greater, 38% of respondents were buying Japanese product because of pricing and availability advantages.

Availability problems often push U.S. buyers into weak positions with suppliers. Case-in-point: California Micro Devices, a Tempe, AZ, IC producer. According to Purchasing Manager Jace Hall, the lack of 1.5-micron production capacity in the U.S. means the

firm has to use Japanese foundries for wafer fabrication.

As Hall states:

> "I am forced to buy from Japan. They've pulled every trick in the book on me. Pricing, late delivery, non-compliance, you name it. It's a mess."

The Japanese foundry even forces the firm to use a Japanese mask maker. Hall is actively seeking U.S. chip makers who can fabricate their product (Bluestein 55).

With component quality increasingly removed as a point of contention between U.S. and Japanese suppliers, service and delivery is becoming paramount for evaluating suppliers. In this regard the survey highlights an emerging trend: the simultaneous improvement of U.S. supplier and service and delivery and the decline of Japanese service and delivery to U.S. customers.

When asked to evaluate U.S. supplier service and delivery over the last two years, 45% of respondents say U.S. suppliers are providing better service and delivery. In comparison, only 30% of buyers say Japanese service is improving. On the other side of the equation, 21% of respondents say U.S. service is worse now compared to two years ago, and a much higher 39% say Japanese service has worsend (Bluestein 55).

Two years ago, when a supplier of a critical component for General Binding Corporation's punch and bind machine could no longer meet company requirements, GBC was forced to look for new sources overseas. Govind Arora explains:

> "We had no alternative. Our domestic supplier suggested we find a second source but we could not find one in the U.S. that was cost competitive."

Today GBC deals with suppliers in Taiwan, Singapore, Korea, and Japan, doing 8% - just $1 million - of its purchasing business overseas and looking for that figure to rise in the next few years (Cayer 98).

The question of availability in the U.S. market can be coupled with the question of significant volume. Even if the product is available in the U.S., the question the purchasing professional needs to remember as to whether or not if this is the most viable source.

Chapter 6

Conclusion

Through out the past years purchasing professional have been expanding their vendor base to offshore suppliers in order to meet the competitions price, quality and availability of the product.

Dr. Robert Monezka States:

> "To compete in a worldwide market as a multinational firm in the 1990's will require being able to play the game in terms of quality and cost and significant product-line technology contributions--either internally or externally via suppliers" (Morgan 50).

Other points that the buyer feels are crucial to staying competitive in the 1990's is: The ability to establish a presence in foreign markets through manufacturing facilities and/or purchases, "seen as important to overall competitiveness" (Morgan 51). Today, we ask "how can our suppliers contribute to our competitive position in the industry? In short, the future of purchasing hinges on finding better ways to make use of the supplier--whether to gain a competitive advantage against our competitors in the domestic industry, just stay even, or gain a competitive advantage against foreign competition" (Morgan 57).

Electronics, such as the VCR's , have been purchased from offshore companies due to price, which has initiated many U.S. electronic companies to operate manufacturing facilities internationally. Strategy: to capture the comparative operational advantages offered in other regions of the world. In turn, these companies have also designed purchasing programs to take advantage of excellent component pricing and value-added services found throughout the global marketplace.

An effective international procurement program not only captures the lowest component and subassembly prices, but also effectively controls the logistical costs and risks corresponding to an international sourcing mission (McGrath 32).

Clear vision, coupled with effective management of the real cost and risk structures of the international environment, is the first step in progressing from a supplementary overseas purchasing program to true "world class" international procurement (McGrath 32).

Global sourcing for the purchasing professional will be a major concern in order to meet the competitions price and quality performance. Analysis of individual and mean rankings revealed the primary of three factors--price, quality and availability--as considerations that lead to international buying. Specifically, price had the highest mean ranking

(1.82), was ranked first 3 times and either first or second 7 times. Two additional factors that appear to be important are offshore technology and delivery.

Industry analysis supported the importance of price every firm in the computer and tractor/farm implement industries rated it the most important consideration. Price also had the highest ranking in the transportation industry. However, chemical firms believed availability was the primary consideration for nondomestic sourcing with technology ranked second and price third. Quality considerations were the highest ranked factor in the electrical group's international sourcing decision.

The N.A.P.M. study showed price, quality, service, and availability as key reason for sourcing internationally. These basic reasons for foreign sourcing were further supported when firms in the present study were asked to explain why they began to buy internationally. Table II, Appendix G shows that product prices coupled with worldwide operations and orientation were the primary reasons that firms first began to buy internationally. Availability, quality and technology were also identified as important reasons.

Foreign purchases increased from 1977 to 1981 in terms of dollar expenditures, percent of sales, and percent of total purchases. See Table III, Appendix H.

The data for 1977 and 1981 reveals an increasing use of international sources. An analysis of the average firm reveals that it is committed over $200 million in purchases expenditures annually; of the almost $.05 of each purchase dollar was sourced internationally in 1981. Expressed in terms of sales, approximately $.02 of each sales dollar was spent for materials in foreign markets. Electronics and transportation firms spend a larger percentage of their purchase dollars internationally in 1981 than did the other groups.

Growth from 1977 to 1981 was measured for the 13 firms in the sample that reported foreign purchases for both time periods. All firms reported increases in the annual dollar value of foreign purchases. The largest percentage increase of foreign purchases for domestic use was 191 percent in the computer industry, followed by a 110 percent increase for tractor and farm implement manufacturers. The overall average increase for the 13 firms was 59.8 percent. This 59.8 percent increase in foreign purchasing expenditures was similar to the 57.9 percent increase of foreign expenditures expressed as a percent of total sales during the same period.

Buyers were also asked to identify major commodities sourced with foreign suppliers. These responses were analyzed by industry and region. Findings are summarized as follows:

* The electrical industry sourced electrical components in the Far East.
* The chemical industry foreign sourced petrochemcial and raw materials primarily in Europe and Western Asia, with secondary foreign sources located in the North American region.
* The computer industry foreign sourced electrical components primarily in the Far East and secondarily in Europe and Western Asia.
* The tractor and farm implement industry foreign sourced mechanical components in Europe and Western Asia and electrical components exclusively in the Far East.

Price was previously discussed as the single most important factor leading to international purchasing. Table VI, Appendix I shows specific dollar savings reported by eight firms in 1981. Savings from foreign buying ranged from $2.5 million and to $39 million and averaged $11.9 million. These dollar savings represented 8 to 20 percent of the annual dollars spent on international purchases. Percentage savings resulting from an international purchase compared with a similar domestic purchase were generally between 10 and 20 percent. In addition to dollar savings,

respondents cited a number of nonquantifiable benefits. Primary nonquantifiable benefits included:

* Increased number of sources
* Quality improvements
* Exposure to worldwide technology
* Capacity and availability improvements
* Meeting "offer" requirements
* Further competition
* lead time reduction

A successful international purchasing effort should continually focus on the enhancement of the knowledge, skills, and experience required to gain all possible benefits from international purchasing. A systematic approach, including continuing education, job rotation, and foreign travel, is required.

Measurement and evaluation on the benefits of purchasing internationally can be used to determine the quanitative and qualitative payoff of a successful effort. This information can be used in determining the criteria to apply to future decisions to source additional items with foreign suppliers.

A flowchart, Appendix J, and required conditions can be used to guide a firm's general approach to developing and enhancing international purchasing efforts. Based on the above information, it is clear that international purchases are growing and that

numerous competitive benefits can accure to firms that buy effectively in the worldwide marketplace (Monczka).

Each industry has its reasons for buying offshore. Electronic industry purchased offshore due to price, quality and availability. Chemical firms believed availability was the foremost consideration with technology and price following second and third.

An endless list of reasons can be given of why industry are now going offshore to make purchase from foreign countries. Price, quality/technology and availability are in each sector of the business world and depending on the needs of that industry, one of the three will be given the primary consideration of buying that item offshore. The world is growing smaller each day, with new sources of supply within the buyers reach within a few weeks or possibly days.

The President's Message in the Purchaser August 1989 issue written by John E. Davis C.P.M., President, PMASL stated a number of items that the purchasing professional will need to remember:

> "BLITZKRIEG! KAMIKAZE! INVADE! These are all powerful words when spoken in the context of war.
>
> Yes, my friends, we have been invaded like no other time in our history. This time, however, there will be no bombs, no submarines, nor troops-- only paper dollar signs! The battle is being fought in our own markets as the Japanese continue to win battle after battle on our own turf.
>
> Let me share with you some startling

facts taken from a book I recently read, titled A Two-Minute Warning. Featured in this book were 10 changes managers must make to survive in the 21st Century.

Fact 1. Japan now owns $9 billion worth of real estate in Hawaii.
Fact 2. Seven of the 10 largest banks in the world are Japanese owned.
Fact 3. Japan graduates almost as many engineers per year as the U.S. In 1985, Japan graduated 71,000 engineers; the U.S. 78,000. On a per capita basis, Japan graduates about twice the U.S. rate of engineers.
Fact 4. In 1986, the Japanese conglomerate Hitachi, Inc. received more patents than any other company in the world, including GE and IBM.

In this trend continues, in less than two decades--about two minutes in world history time--Japan will succeed the U.S. as the world's productivity leader, and in the 21st Century this Pacific nation will become the world's economic leader.

As purchasing professionals, we need to be prepared to meet the challenges from our global competitors. Training and education are the tools which will give us the competitive edge in the future. When was the last time you attended a seminar or received training to increase your on-the-job performance?

The PMASL offers seminars, training and educational programs to increase your skills. Let's not talk about being professionals: Let's be professionals and become involved".

In conclusion, research that has been acquired indicates that the world market is growing smaller each day and in order for the purchasing professional to compete in the new industrialized global market, he/she must expand their vendor base on foreign sources and

search out new techniques for securing the best price, quality and availability of a product. Appendix K is a list of books and periodicals that can be acquired for additional information on foreign sourcing through the N.A.P.M. Information Center.

RESEARCH SURVEY

This survey is being conducted to research the purchasing trends of foreign products. Your information will be held in confidence. This survey is being administered by Mary Gisi, MBA graduate student at Lindenwood College, St. Charles, Mo. Please check your answers and thank you for your response.

1. Are you involved in foreign purchasing?

   Yes____ No____

2. What is the main reason for purchasing products for a foreign source?

   Price____ Quality____ Availability____ Other____

3. How do you rate the quality of a foreign product?

   Excellent____ Satisfactory____ Poor___

4. Is the foreign source the only source available for this product?

   Yes____ No____

5. Have you found the technology....

   More advanced than U.S.____ The same as U.S.____

   Behind the U.S.____ Other____

6. What items listed are you currently buying from a foreign source?

   Finished Goods_____ Electrical Components____

   Machine Tools____ Ferrous/Non-Ferrous Metals____

   Chemicals____ Minerals____

   Plastics____ Glass____ Others____

7. Are deliveries on time?

Yes____ No____

8. Do you buy direct from foreign sources?

Yes____ No____

8a Do you buy through an American distributor for these foreign products?

Yes____ No____

9. Do you have a representative to negotiate with a potential supplier?

Yes____ No____

10. Is the supplier cooperative in making changes in a product?

Yes____ No____

10a Would this influence you decision to buy from a foreign source?

Yes____ No____

11. What influenced your decision to investigate offshore vendors?

Price____ Quality____ Availability____ Other____

12. Do you find U.S. suppliers responding to the competition?

Yes____ No____ Comments_____

13. With the fluctuation of the dollar, what savings are being recognized by offshore buying?

    25%____ 30%____ 40%____ other____

14. What is the end product your company manufactures?

    _____

15. Comments_____

    _____

    _____

    _____

RESEARCH SURVEY RESULTS

This survey was conducted at the Purchasing Management meeting with 36 surveys being returned. The results are as follows:

1.	Are you involved in foreign purchasing?	Yes	70%
2.	What is the main reason for purchasing products form a foreign source?	Price	55%
		Quality	15%
		Availability	24%
		Other	6%
3.	How do you rate the quality of a foreign product?	Excellent	41%
		Satisfactory	48%
		Poor	11%
4.	Is the foreign source the only source available for this product?	Yes	27%
		No	73%
5.	Have you found the technology:	More Advanced than U.S.	28%
		The same as U.S.	52%
		Behind the U.S.	20%
6.	What items listed are you currently buying from a foreign source?	Finished Goods	27%
		Machine Tools	7%
		Chemicals	5%
		Plastics	13%
		Glass	2%
		Electrical Components	17%
		Ferrous/non Ferrous	22%
		Minerals	2%
		Other	5%

7. Are deliveries on time?	Yes	59%
	No	41%
8. Do you buy direct from foreign sources?	Yes	62%
	No	38%
8a. Do you buy through an American distributor for these foreign products?	Yes	76%
	No	24%
9. Do you have a representative to negotiate with a potential supplier?	Yes	68%
	No	32%
10. Is the supplier cooperative?	Yes	85%
	No	15%
10a Would this influence your decision to buy from a foreign source?	Yes	73%
	No	27%
11. What influenced your decision to buy from a foreign source?	Price	53%
	Quality	15%
	Availability	23%
	Other	9%
12. Do you find U.S. suppliers responding to the competition?	Yes	84%
	No	16%
13. With the fluctuation of the dollar, what savings are being recognized by offshore buying?	25%	40%
	30%	5%
	40%	0%
	Other	55%

14. What is the end product your company manufactures?

Casting
Telecommunications
Aircraft
Processed steel-flat rolled
Automotive
Jacks and lube equipment
Dental products
Plastics
Railcar leasing and manufacturing
Cement
Electrical
Valves

15. Comments:

"Quality is excellent, price is great but they ship when they get ready to ship"

Response to #10 - More inflexible than not because of communication barrier.

"I find some foreign sources to be good on deliver and price. Others are not and it is better to buy from the U.S. suppliers"

Research Survey Summary

This survey was conducted at the Purchasing Association monthly meeting with a limited attendance of 100 members and guests. 36% of the survey forms returned indicated that 70% of the purchasing managers are buying products from offshore. The sampling of the survey indicates price is the major factor for offshore purchases, with availability following second and quality in third place. Even with the fluctuation of the dollar, the buyer is still realizing a 25% cost saving on foreign made items.

As the research continues, it is being found that the Purchasing Professional is using his offshore sources to procure the best price, quality/technology and availability, in order to be competitive in the global market place.

International Trade Terms

The following terms are specific to procurement of products from foreign sources.

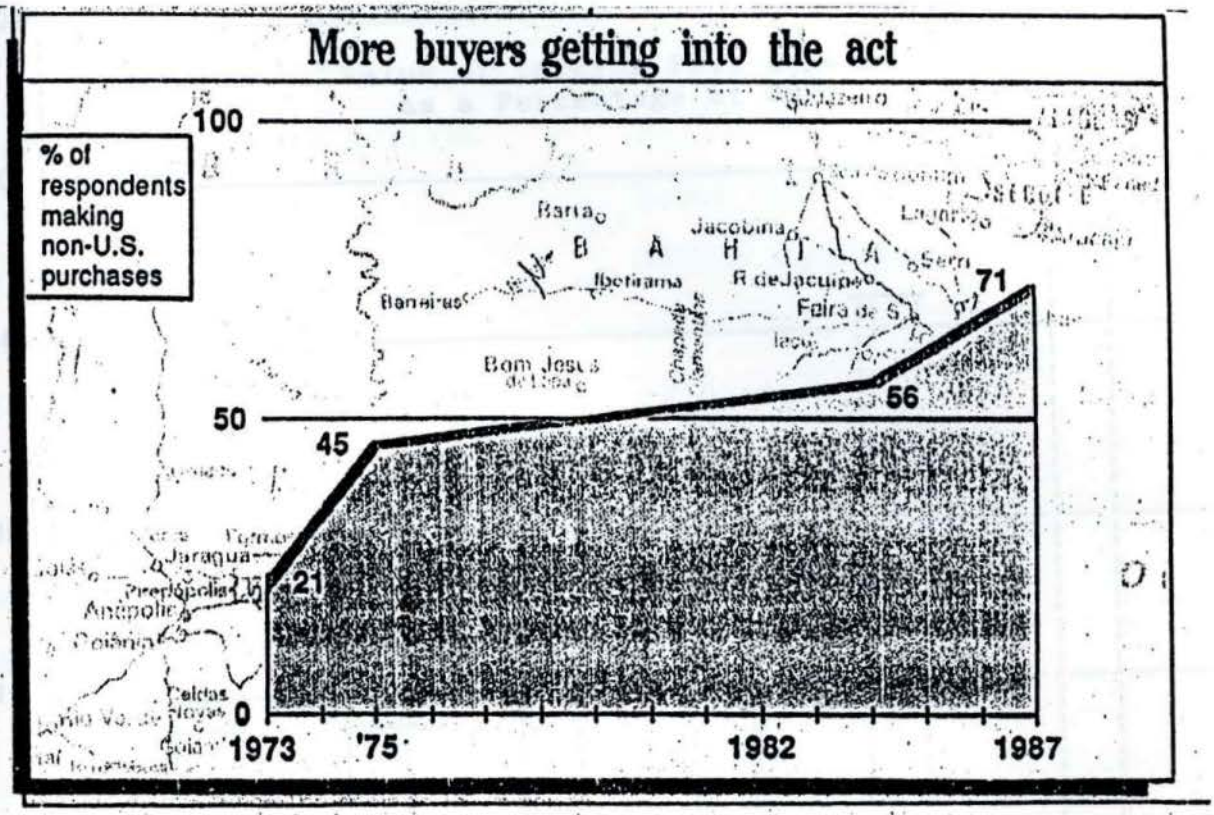
The global sourcing concept refers to the search for the best materials at the best price and quality. For example, electrical components, raw material are tow such items that can be explored on the global market for price, quality and availability. As the world grows smaller, the buying of goods and services outside the continental limits of the United States has added one more dimension to the buyers arsenal for locating qualified suppliers.

Offshore purchasing is a term that is frequently used. The motivations for offshore sourcing are usually to obtain lower cost products. This involves a relationship between independent buyers and sellers in which goods are exchanged for money. This arrangement may vary in many ways, such as, whether the transactions are directly between the buyer and seller or through one or more agents in the U.S. or overseas.

Outsourcing will be another term that will be used. This term may be defined as the purchase of raw materials, semifinished components or products from foreign suppliers.

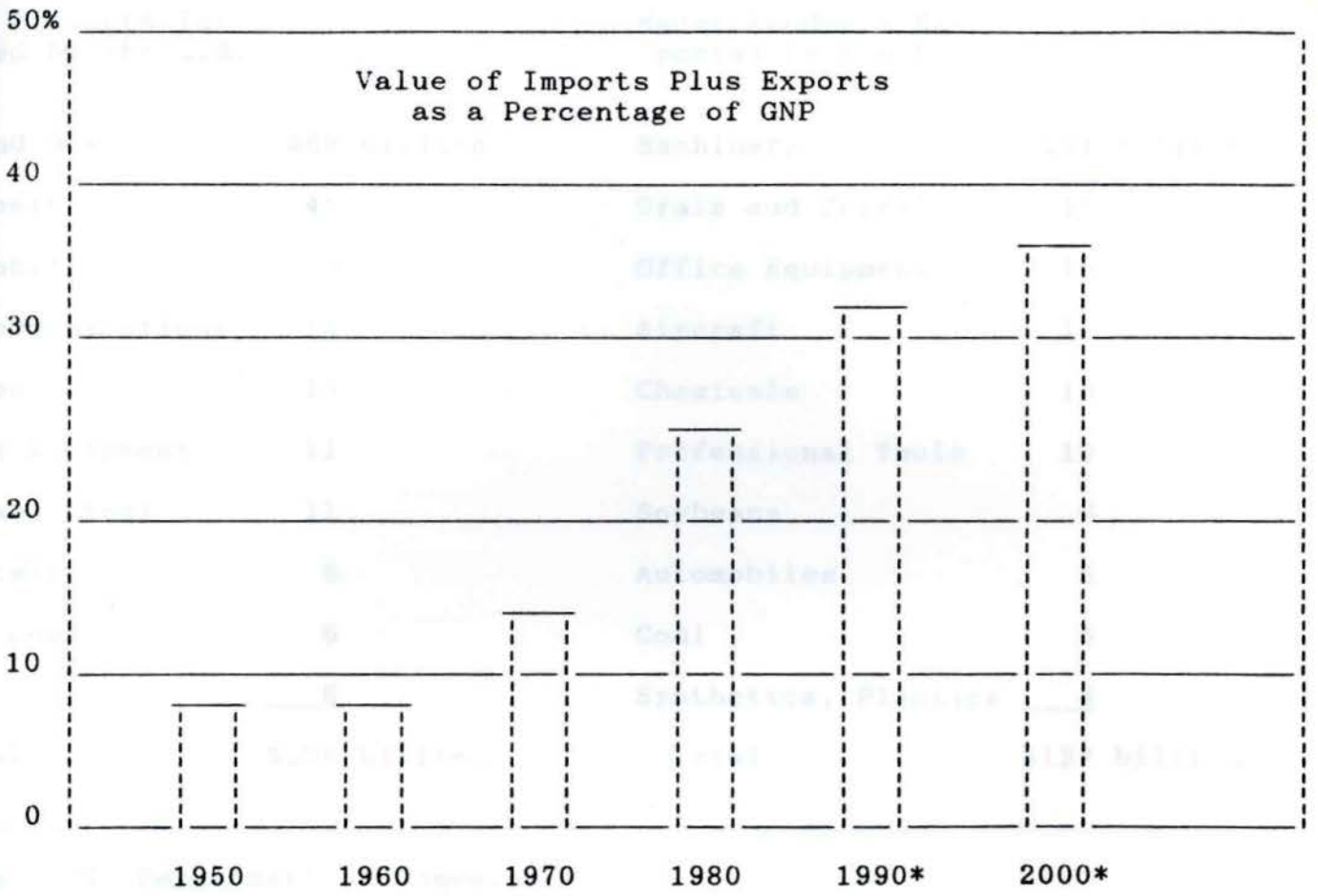
Simple sourcing is a type of sourcing the quality means the minimization of variance while single sourcing is the natural outcome of establishing closer relationships with suppliers. Along with this term follows second sourcing. This type of sourcing may be used due to the lack of capacity of vendor not being able to meet the companies need of product (Moxon Sec.38).

Appendix A



52 PURCHASING JUNE 25, 1987

Appendix B



*Projected

Source: U.S. Department of Commerce.

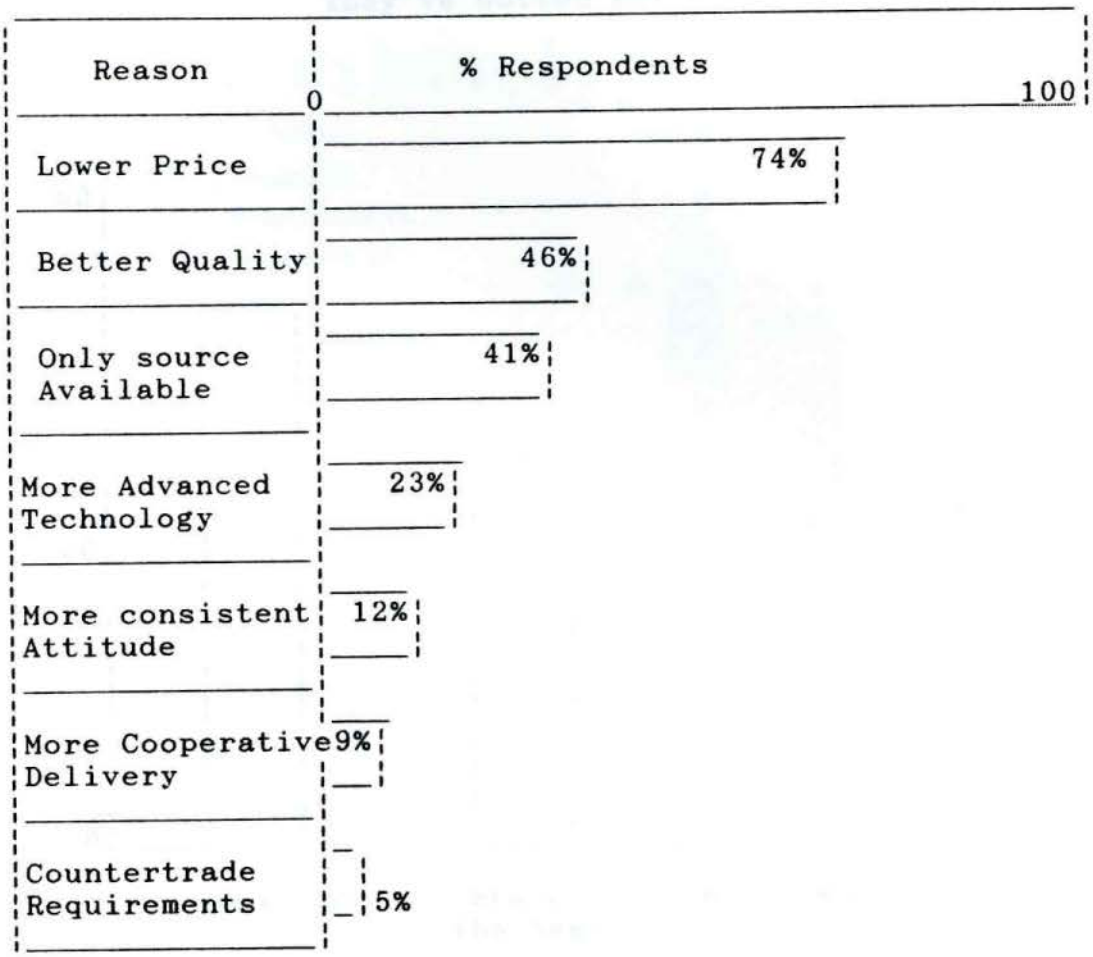
Appendix C

AT THE U.S. BUYS		WHAT THE U.S. SELLS	
	1984		1984
jor Products Im-orted by the U.S.		Major Products Ex-ported by the U.S.	
l and Gas	$62 billion	Machinery	$41 billion
chinery	41	Grain and Cereal	16
tomobiles	30	Office Equipment	15
lecommunications	16	Aircraft	11
othes	15	Chemicals	10
fice Equipment	11	Professional Tools	10
on and Steel	11	Soybeans	6
emicals	8	Automobiles	5
tal Goods	6	Coal	5
per	6	Synthetics, Plastics	4
Total	$206 billion	Total	$127 billion

urce: U.S. Department of Commerce.

APPENDIX D

WHY BUYERS BUY FOREIGN

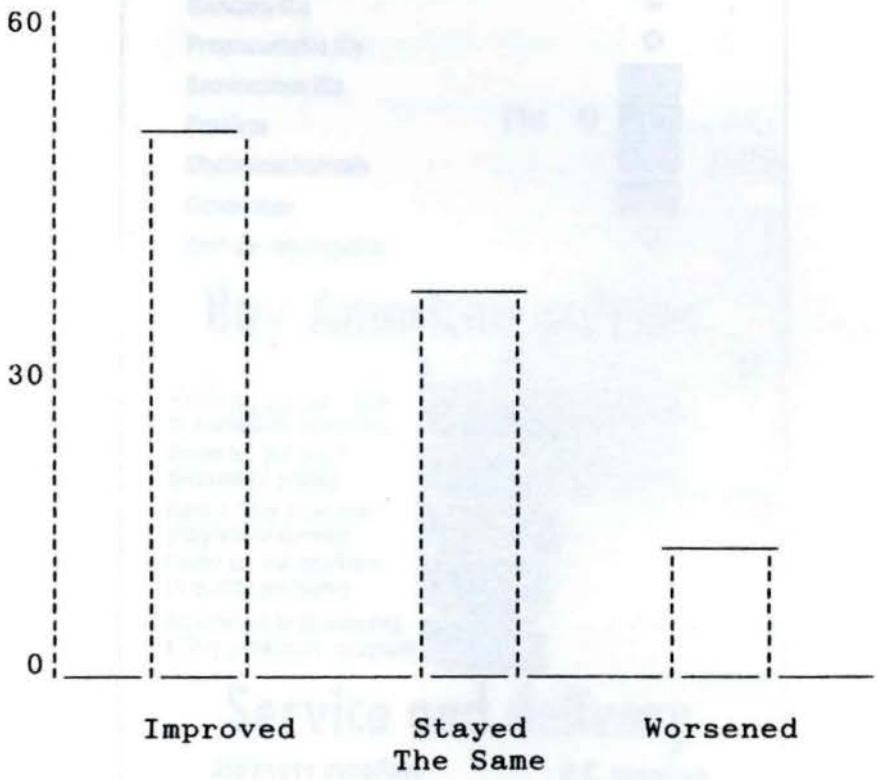


Source: Purchasing 25 June 1987

APPENDIX E

QUALITY ON THE RISE

What's Happened to Quality Levels in the Last Year? They've Gotten Better.



Source: Purchasing 10 November 1988.


Quality overall
(Compared to U.S., Japan quality is...)
Superior 30%
Equal 65%
Worse 5%
Who's better, by product
Product
Advantage
Standard ICs
Programmable ICs
Semicustom ICs
Passives
(Tie)
Electromechanicals
Connectors
Surface mount parts
Buy American policies
0
(% of respondents)
50
Prefer to, but can't due to availability problems
39%
Prefer to, but can't because of pricing
38%
Have a "Buy American" program underway
19%
Prefer to, but can'tdue to quality problems
17%
No interest in developing a "Buy American" program
17%
Service and delivery
Japanese suppliers
U.S. suppliers
50
40
30
20
10
(% of respondents)
Worse service
Better service
Same service

Appendix G

Table II

Reasons for Initially Buying Internationally

Reason	Frequency
Lower Price From Foreign Sources	13
Firm Had Worldwide Operation and Attitude	12
Availability of Foreign Products	9
Technology Available From Foreign Source	3
Due to Developing Worldwide Competition	1
Improved Delivery of Foreign Product	1

Source: Journal of Purchasing and Materials Management, Fall 1984.

Table III

INTERNATIONAL PURCHASING EXPENDITURE PROFILE
(For Domestic U.S. Use)

Industry/Firm	1977 Foreign Purchases (millions)	1977 Percent of Purchases	1977 Percent of Sales	1981 Foreign Purchases (millions)	1981 Percent of Purchases	1981 Percent of Sales	Net Dollar Increase 1977-1981 (millions)	Percent Increase Based on Percentage of Total Purchases 1977-1981	Percent Increase Based on Percentage of Sales 1977-1981	Percent Increase Based on Annual Purchase Dollars
Electrical Industry Average	$125.1 n=4	1.76 n=3	1.20 n-3	$178.3 n-6	5.67 n-6	2.22 n-6	+59.8 n=4	+199.1% n=3	+101.01% n=3	+47.8% n=4
Transportation Industry Average	$282.9 n=3	2.79 n=3	1.11 n=3	$242.2 n=7	4.89 n=7	1.71 n=7	+80.0 n=3 plus	+22.9% n=3	+32.8% n=3	+49.4% n=3
Chemical Industry Average	$153.8 n=3	3.75 n=2	2.21 n=2	$302.7 n=3	3.99 n=3	2.5 n=3	+60.2 n=2	+33.0% n=2	+38.15% n=2	+39.1% n=2
Computer Industry Average	$62.65 n=2	1.37 n=1	—	$182.5 n=2	4.25 n=2	1.15 n=2	+50.00 n=2 plus	+192.0% n=1	—	+191.3% n=2
Tractor & Farm Implement Average	$47.5 n=2	2.13 n=2	.975 n=2	79.3 n=3	3.50 n=3	1.65 n=3	+52.5 n=2	+40.6% n=2	+40.3% n=2	+110.5% n=2
Overall Average	$144.4 n=13	2.43 n=11	1.33 n=10	$203.6 n=21	4.72 n=21	1.91 n=21	+61.9 n=13	+102.5% n=10	+57.89% n=10	+59.8% n=13

Source: Journal of Purchasing and Materials Management, Fall 1984

Appendix I

Table VI

Savings From International Sourcing

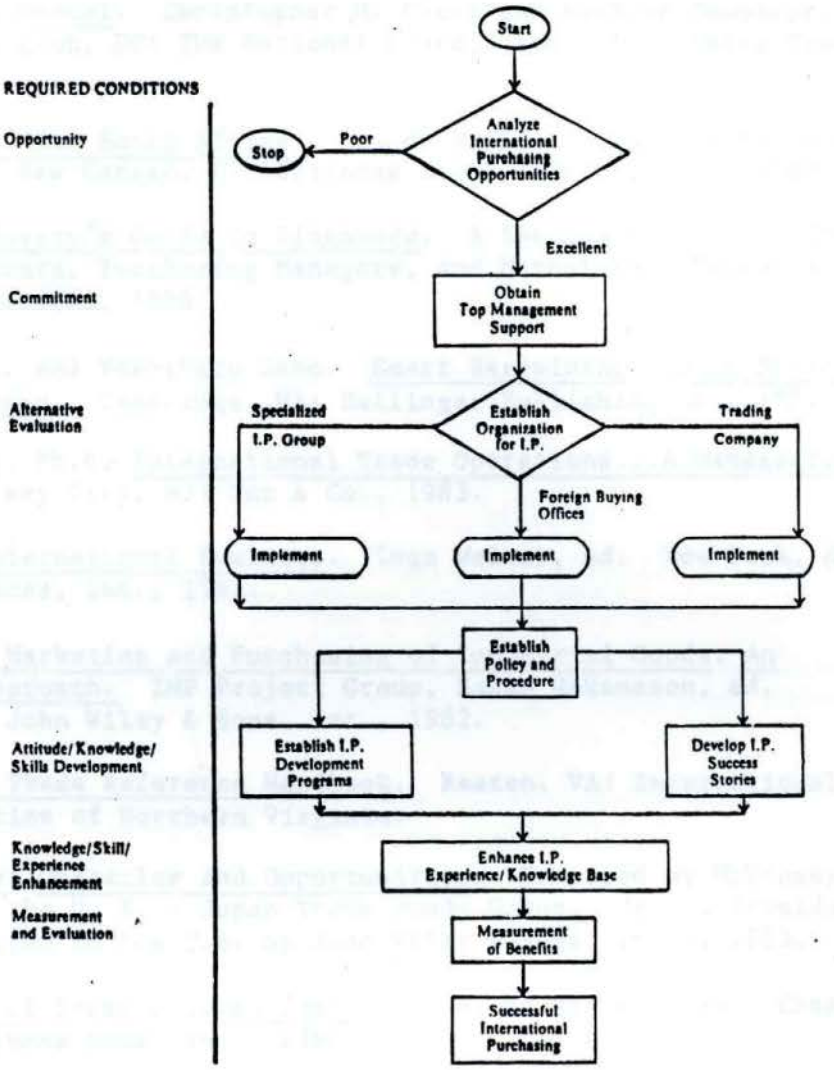
Selected Firms, 1981

Industry	Dollars Saved (Millions of Dollars)	%of Annual International Purchasing Saved
Electrical		
1	39	8.25
2	10% over U.S. Sources	
4	3-4	10
5	25	15
6	10	-
7	5	-
Tractor & Farm Implement		
1	Estimated 1982 savings $2 million	
2	2.5	8
Chemical		
2	Significant but no price tag - Also "How Do You Judge Threat of Foreign Competition?"	

Source: Journal of Purchasing and Materials Management, Fall 1984.

Figure 1

INTERNATIONAL PURCHASING IMPLEMENTATION FLOWCHART



Source: Journal of Purchasing and Materials Management, Fall 1984

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