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SENIOR MANAGEMENT ATTITUDES TOWARD
STRATEGIC CHANGE
IN U.S. MANUFACTURING COMPANIES

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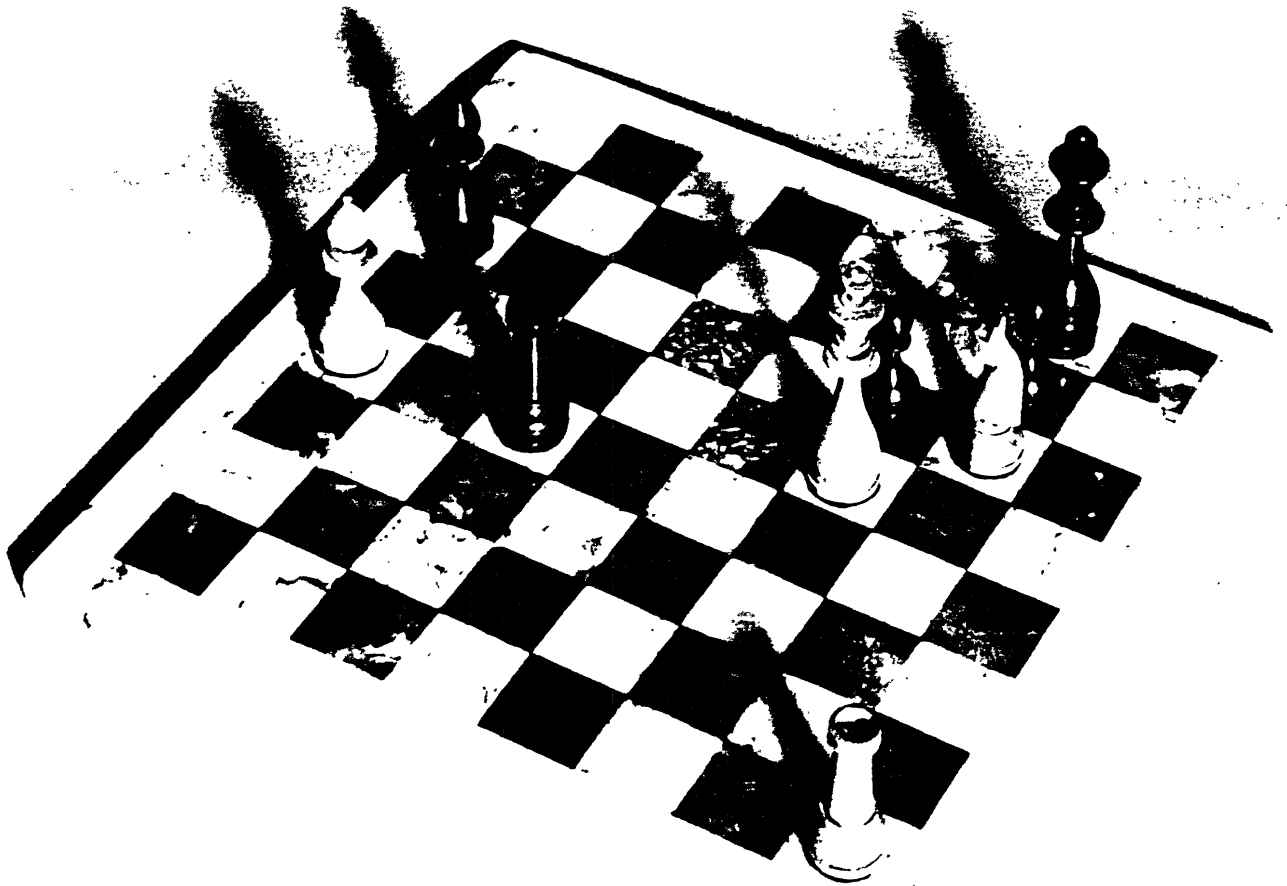
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GRADUATE SCHOOL OF BUSINESS ADMINISTRATION
THE UNIVERSITY OF MICHIGAN



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A research study prepared by
The Graduate School of Business Administration
University of Michigan

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Strategic Change in U.S. Manufacturing Companies

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About The Authors

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Introduction

Fundamental changes in competitive strategy have rocked the manufacturing industry of this country during the last decade. This "Survey of Management Attitudes Toward Issues of Strategic Change in U.S. Manufacturing Companies," completed in May of 1986, was begun in 1985 in an effort to document the nature and extent of these changes. Of special interest and particular focus in the study were the impact of computer-based technology upon manufacturing and the role of the Chief Executive Officer (CEO) in enabling strategic change.

Motivation for the research grew from two facts apparent from current business literature. First, management of strategic change is considered to be the single greatest responsibility of a corporate CEO. Recent studies of Fortune 1000 CEOs document strategic planning and implementation to be the area of greatest concern to chief executive officers. It is also the area to which they currently allocate the greatest amount of their time and the one to which they feel that even more of their attention should go. Specific questions of concern to them include:

- How can the changing forces of competition be monitored and reacted to in a timely fashion?
- How can the organization's strategic planning process be simplified and made more productive?
- How can reasonable environmental assumptions be arrived at and how can uncertainties be factored into the strategic plan?
- How can a plan, once arrived at, be implemented more effectively?
- When planning assumptions prove incorrect, how can the impact be measured and translated to appropriate action?
- How can management be motivated to think and act strategically and how should their accomplishments be measured and rewarded?

The second fact clear from the popular business literature is that computer based technology has had a wide variety of strategic effects upon manufacturing corporations. At the industry level, computer technology has changed products (automotive, consumer electronics), markets (globalization enabled by improved communications and logistics), and economics of production (factory automation and robotics). At the firm level it has changed relationships with buyers (new distribution channels and order entry systems), with suppliers (just-in-time delivery and material performance tracking), with current rivals (product quality improvement and price reduction), with possible new entrants (erecting barriers to market entry), and with product substitutes (enhancing product functionality or cost position). By lowering product cost, enabling product differentiation, or permitting the servicing of a market niche, computer technology has affected manufacturing strategy.

The facts then are these. CEOs recognize the importance of their role in directing strategic change and are concerned by difficulties inherent in the process. Computer technology has significantly altered a manufacturing firm's competitive environment and is thus fueling the need for strategic change.

The goals of our research in light of these facts were (1) to document the nature and extent of technological change that has occurred within the U.S. manufacturing industry since 1980, (2) to determine the likely direction of change through 1990, and (3) to compile opinions on strategic issues facing the industry and on keys to success in dealing with these issues.

The study was divided into two major phases. A preliminary review of literature on strategic change was followed first by a series of personal interviews with over 50 senior manufacturing executives, and then by a questionnaire survey distributed to 1500 CEOs. The Phase 1 interviews were intended to surface the variety of facts, beliefs, and concerns currently held by a sample of senior manufacturing executives. The Phase 2 questionnaire was then designed to document exactly how widely these opinions were held throughout the industry.

Interviews of Senior Manufacturing Executives

Fifteen manufacturing organizations, with annual sales ranging from \$100 million to \$50 billion participated in the Phase 1 study. The companies represented a broad cross section of products (capital, industrial, and consumer goods), industries (automotive, steel, electronics, rubber, plastics), and production processes (one of a kind through continuous process). A structured interview process was used to gather data in these firms. Issues of discussion included the nature of the company's strategic management process, impediments to change in a manufacturing firm, and tactics or advice for success in accomplishing strategic change.

After analysis of publicly available and company supplied background material, the research team sought to interview:

- the CEO, as the primary architect and mover for strategic change,
- the chief planning officer, where one was used to facilitate the planning process,
- the chief financial officer, who provided the structure used to analyze strategy alternatives and the information used to monitor strategy implementation, and
- one or more operating executives, who had been responsible for the implementation of strategic change.

Each interview required approximately 90 minutes and confidentiality was assured both within and without the organization. The executives came from a wide range of industry experience and educational backgrounds. Each had been provided in advance with a description of our purpose and of the areas in which our questions would delve. They were by and large enthusiastic in their participation and frank in their responses. All interviews in a business unit were completed in one or two days and most were complemented with a tour of the firm's manufacturing facilities.

The interviews revealed many remarkable examples of manufacturing system improvement:

- Line workers had been reduced from 360 to 10 with a 100 percent increase in production through application of robotics.
- Middle management compression had provided white collar savings as large as the substantial savings achieved from blue collar reductions.
- Raw material inventories had been reduced from more than 10 weeks to less than 3 days.
- A machine set-up time had been reduced from 2 hours to 12 minutes.
- Work-in-process had been all but eliminated as a production cycle was reduced from more than 2 days to less than 30 minutes.
- Product cost of an assembled product had been reduced from more than \$600 to less than \$150 through use of a multi-discipline design team composed of representatives from marketing, manufacturing, engineering and accounting.
- Total work force reductions of more than 60 percent had been achieved with no drop in production.
- Quality control inspectors were totally eliminated because the finished product simply had no defects.

The Phase 1 interviews identified a number of common themes: quality improvement, process innovation, inventory eliminations, and direct-labor reduction. There was no consensus, however, on the extent of real change that had taken place within American industry as a whole, nor on why the changes had occurred, what competitive forces were currently most powerful, and what types of strategic actions were most needed to assure the survival of a manufacturing firm through the 1990s. The Phase 2 questionnaire was designed to gain insight into these questions.

The CEO Questionnaire Study

To more precisely document opinion on fundamental strategic issues facing manufacturing companies today and to calibrate the nature, direction and extent of strategic change, a Phase 2 questionnaire was developed. The survey consisted of 30 multipart questions divided into 5 sections:

Section 1: Competitive pressures upon the firm. (3 questions)

Section 2: Past attempts and future plans to improve competitiveness. (2 questions)

Section 3: Description and critique of the strategic planning process. (9 questions)

Section 4: Attitudes toward strategic planning and change. (6 questions)

Section 5: Factual information about the firm. (10 questions)

Before finalizing and distributing the questionnaire, draft questions were pretested on industry representatives and refined by survey specialists at the University of Michigan's Institute for Social Research. Questionnaires were then mailed to the CEOs of the 1500 largest U.S. based manufacturing firms. One hundred and eighty usable questionnaires were returned. This response rate of 12 percent was somewhat higher than anticipated considering the length of the questionnaire and the level of executive solicited.

The average annual sales for the 180 business units analyzed was \$1.6 billion. The distribution of sales for the total corporation is given in Figure 1. Titles of the respondents are shown in Figure 2; more than half held the position of Group Vice President or above. A statistical summary for the entire questionnaire is provided as an Appendix. And a complete set of size and operating characteristics for the business units surveyed is found in Section 5 of that Appendix.

The Nature of Change and Competitive Pressure

The first section of the questionnaire was designed to document the nature of change induced by technological innovation since 1980 and to identify the competitive pressures viewed to be most significant through 1990. Figure 3 is labeled as summarizing question 1.1 of the survey. It shows that Methods of Production, Control of Product Quality, and Methods of Sale have been the areas most effected by technology in the past five years. Methods of Distribution, Relationships with Suppliers and Relationships with Customers have undergone least change.

Confirming our interview data, the statistics of Figure 4 suggest that Product Quality and Reliable Delivery will be the dominant concerns of customers over the next five years. Low Price and Product Innovation are important but secondary. Least important to customers in the eyes of our respondents were Product Design Assistance, Rapid Product Redesign and, somewhat surprisingly, Just-in-Time Delivery. To explain this latter fact, some later data indicates that substantial progress has already been made in the reduction of raw material inventories and that further improvement through JIT systems is no longer critical.

When questioned about their own concerns for the future, our respondents identified the Vision/Leadership of management coupled with Competitive Price Pressures, Customer Quality Demands, and Quality of Supplier Products as the most critical (refer to Figure 5a, b, c). In contrast to respondent's view of their customer's priorities, they rated Price of Supplier Product slightly ahead of Reliability of Delivery; both were considered important. Perhaps as a sign of the myopia that manufacturing firms have been traditionally accused of, our respondents expressed least concern with the need for Product Redesign, and the threats of Product Substitutes and Dwindling Markets.

FIGURE 1

Annual Sales for the Total Organization

question 5.8a / 5.8b

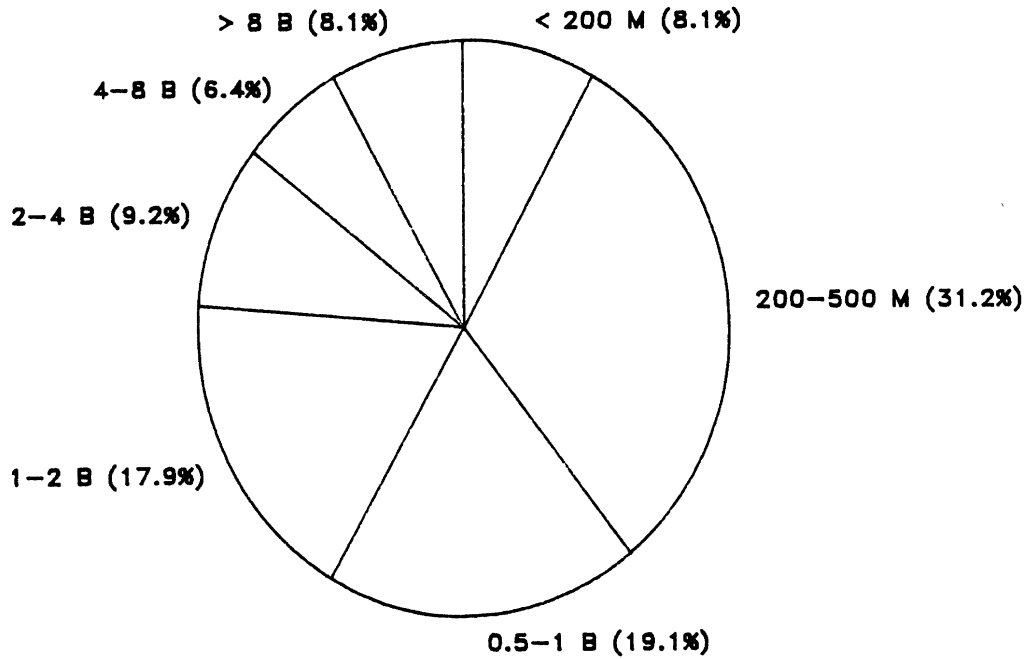


FIGURE 2

Title of Respondent

question 4.1

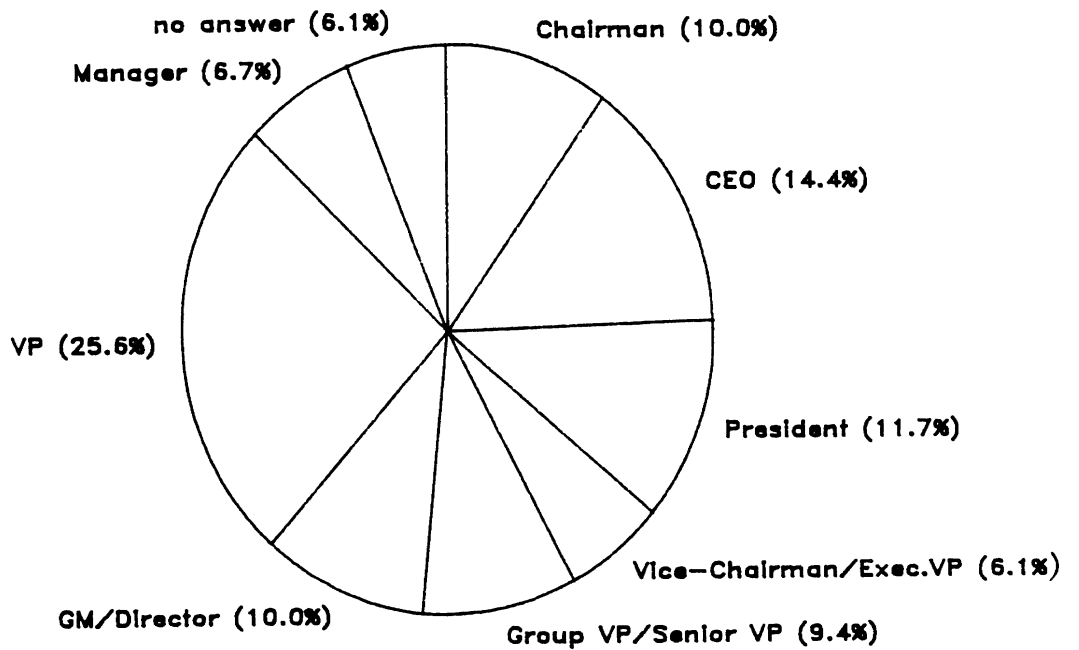
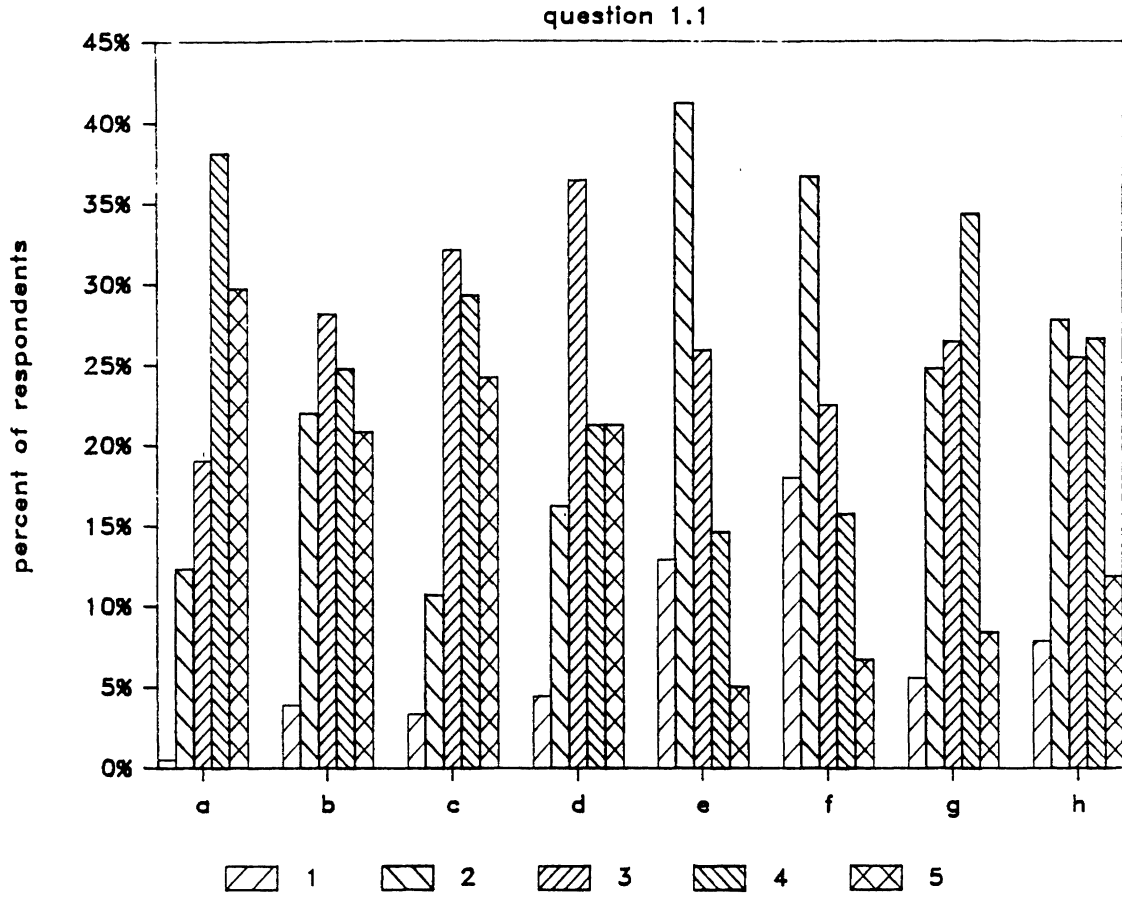


FIGURE 3

Effects of Innovation



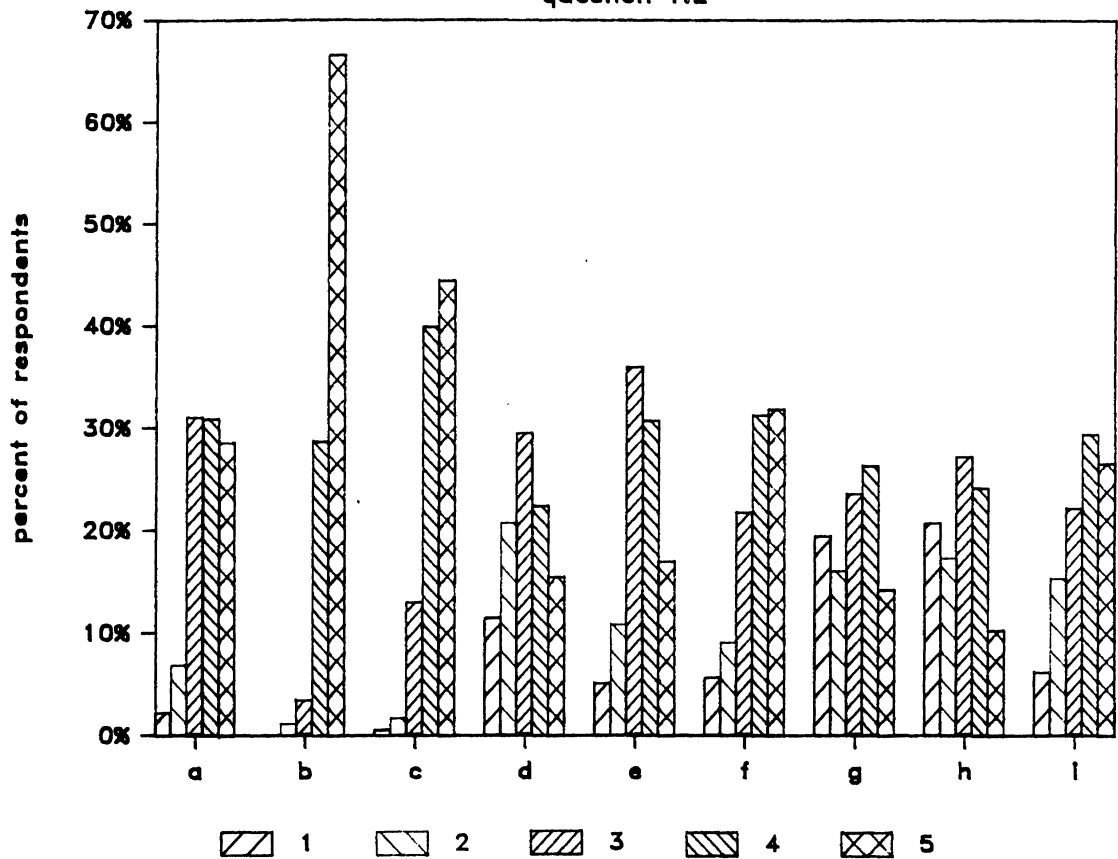
Has *innovation or technological change* had a noticeable *effect upon* any of the following in the past five years for this business unit?

	Average Rating	Percent by Rating				
		None	Minor			Major
			1	2	3	
a. Methods of Production.....	3.84	0.6	12.4	19.1	38.2	29.8
b. Nature of the Product.....	3.37	4.0	22.0	28.2	24.9	20.9
c. Control of Product Quality...	3.60	3.4	10.7	32.2	29.4	24.3
d. Nature of the Market.....	3.39	4.5	16.3	36.5	21.3	21.3
e. Methods of Sale.....	3.58	13.0	41.2	26.0	14.7	5.1
f. Methods of Distribution.....	2.56	18.1	36.7	22.6	15.8	6.8
g. Relationships with Customers.	3.15	5.6	24.9	26.6	34.5	8.5
h. Relationships with Suppliers..	3.07	8.0	27.8	25.6	26.7	11.9

FIGURE 4

Importance of Product Characteristics

question 1.2



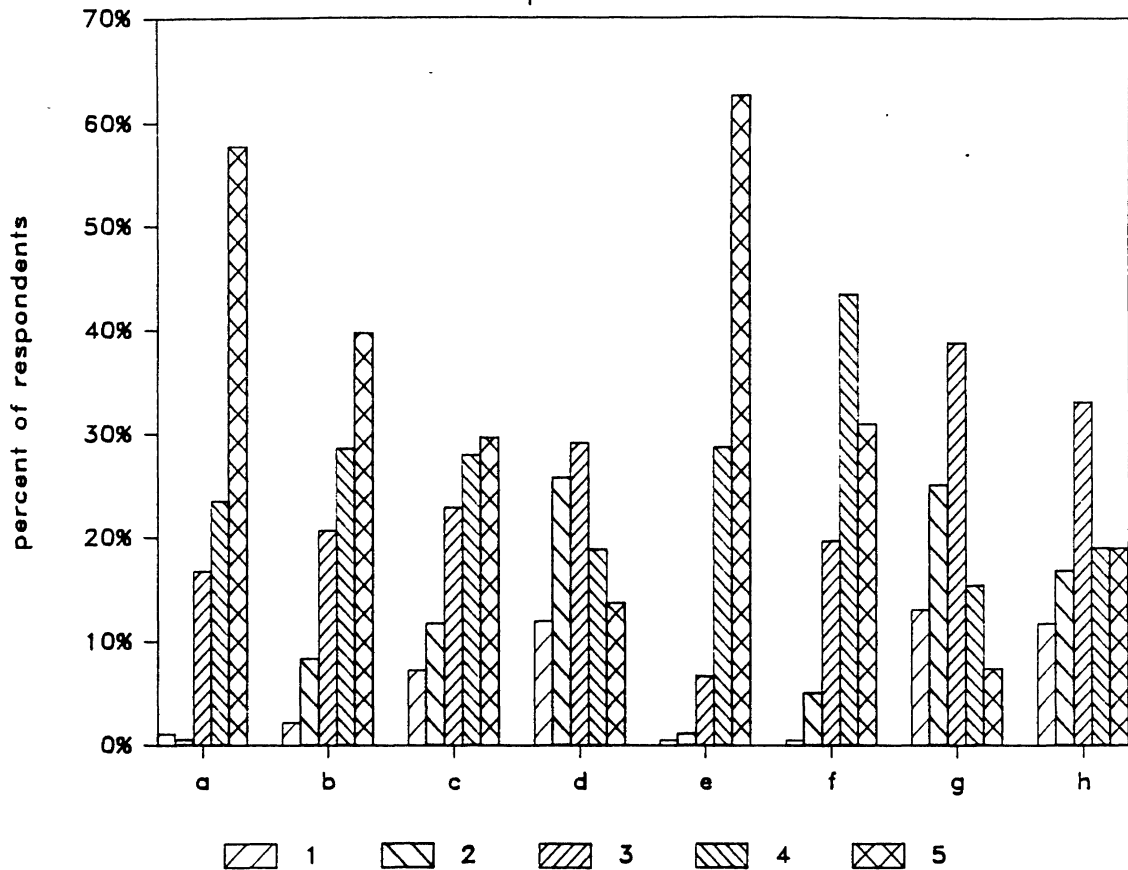
Looking ahead five years, how *important* are the following product characteristics likely to be to the customers of this business unit?

	Average Rating	Percent by Rating				
		Little 1	2	3	4	Critical 5
a. Low Price.....	3.77	2.3	6.9	31.0	31.0	28.7
b. Product Quality.....	4.61	0.0	1.1	3.4	28.8	66.7
c. Reliable Delivery.....	4.27	0.6	1.7	13.0	40.1	44.6
d. Just-in-Time Delivery.....	3.10	11.6	20.8	29.5	22.5	15.6
e. Delivery on Short Notice.....	3.44	5.1	10.9	36.0	30.9	17.1
f. Product Innovation.....	3.75	5.7	9.1	21.7	31.4	32.0
g. Rapid Redesign of Product...	3.00	19.5	16.1	23.6	26.4	14.4
h. Product Design Assistance....	2.86	20.8	17.3	27.2	24.3	10.4
i. Service After Sales.....	3.55	6.3	15.3	22.2	29.5	26.7

FIGURE 5a

Future Concerns of Management

question 1.3a-h



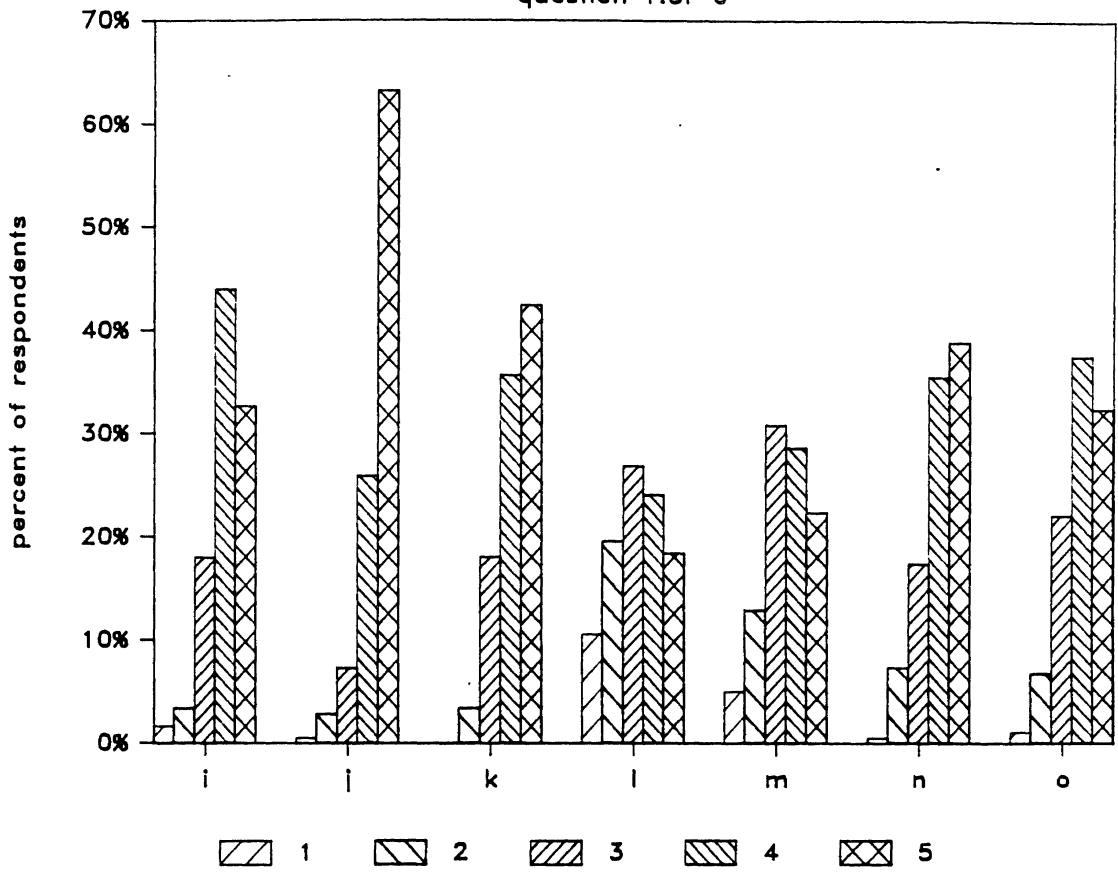
Looking ahead five years, of how much *concern* are the following *to the management* of this business unit?

	Average Rating	Percent by Rating				
		Little	2	3	4	Critical
		1	2	3	4	5
Competition						
a. Price Pressures.....	4.37	1.1	0.6	16.9	23.6	57.9
b. Product Innovation.....	3.96	2.2	8.4	20.8	28.7	39.9
c. Global Nature.....	3.61	7.3	11.8	23.0	28.1	29.8
d. Product Substitutes.....	2.97	12.1	25.9	29.3	19.0	13.8
Customer						
e. Quality Demands.....	4.52	0.6	1.1	6.8	28.8	62.7
f. Delivery Demands.....	3.99	0.6	5.1	19.8	43.5	31.1
g. Redesign Demands.....	2.79	13.1	25.1	38.9	15.4	7.4
h. Dwindling Markets.....	3.17	11.8	16.9	33.1	19.1	19.1

FIGURE 5b

Future Concerns of Management

question 1.3i-o



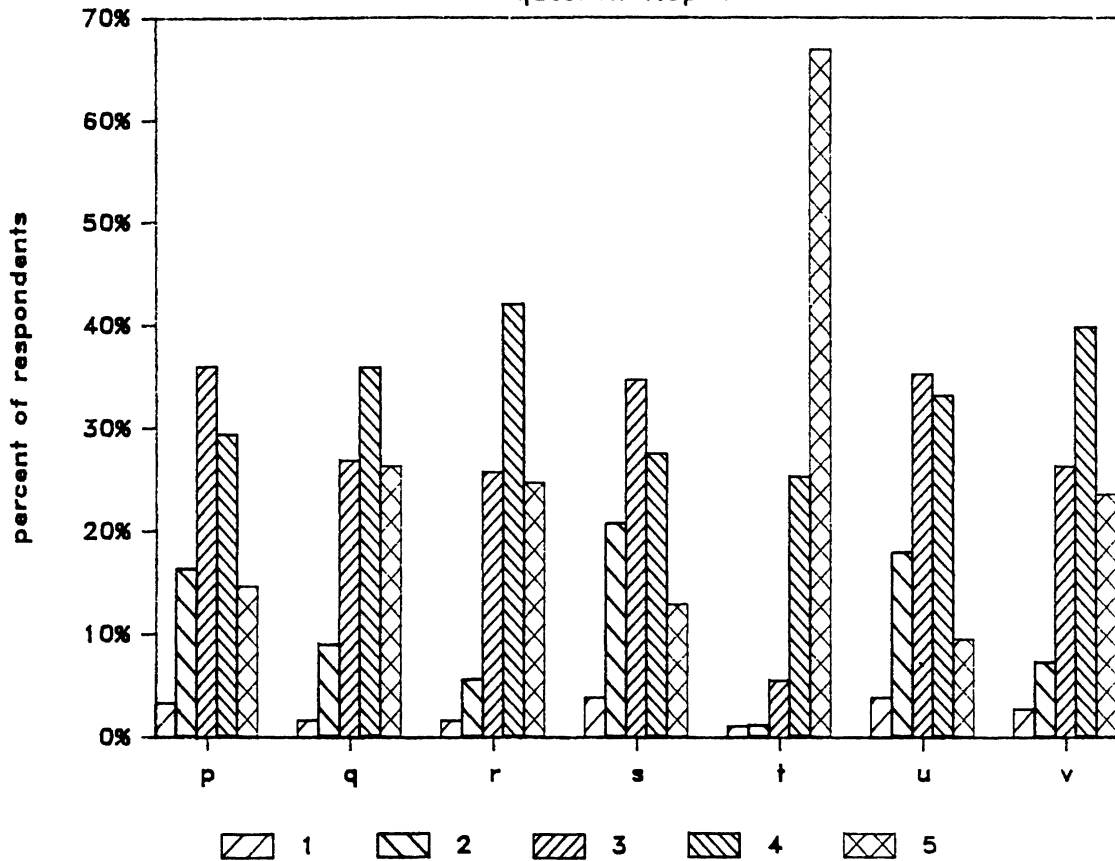
Looking ahead five years, of how much *concern* are the following *to the management* of this business unit?

	Average Rating	Percent by Rating				
		Little				Critical
			1	2	3	
Supplier						
i. Reliability of Delivery.....	4.03	1.7	3.4	18.1	44.1	32.8
j. Quality of Product.....	4.49	0.6	2.8	7.3	26.0	63.3
k. Price of Product.....	4.18	0.0	3.4	18.2	35.8	42.6
Cost Components						
l. Government Regulation.....	3.20	10.7	19.7	27.0	24.2	18.5
m. Labor.....	3.51	5.1	12.9	30.9	28.7	22.5
n. Overhead/Burden.....	4.05	0.6	7.3	17.5	35.6	39.0
o. Inventories.....	3.93	1.1	6.8	22.2	37.5	32.4

FIGURE 5c

Future Concerns of Management

question 1.3p-v



Looking ahead five years, of how much *concern* are the following *to the management* of this business unit?

	Average Rating	Percent by Rating				
		Little	1	2	3	4
		1	2	3	4	5
Aging						
p. Plant/Equipment.....	3.36	3.4	16.4	36.2	29.4	14.7
q. Process Technology.....	3.76	1.7	9.0	27.0	36.0	26.4
r. Information Systems.....	3.83	1.7	5.6	25.8	42.1	24.7
s. Work Force.....	3.25	3.9	20.8	34.8	27.5	12.9
Management						
t. Vision/Leadership.....	4.56	1.1	1.1	5.6	25.3	66.9
u. Obsolescence.....	3.26	3.9	18.0	35.4	33.1	9.6
v. Succession.....	3.74	2.8	7.3	26.4	39.9	23.6

Past and Future Efforts to Improve Competitiveness

Section 2 of the questionnaire was designed to identify areas in which substantial company effort either had been invested over the past three years or would be made in the next three years to improve profitability. We hoped also to identify efforts that had been most successful, as well as those that had been disappointing and those that today held the greatest hope for productivity improvement in the future. The data presented by Table 1 paints a clear picture of a manufacturing strategy widely adopted by U.S. manufacturing firms in the early 1980s:

The dominant manufacturing strategy of the 80's has been one of dramatic quality improvement coupled with significant cost reduction achieved through the elimination of inventories and the slashing of direct-labor content. The marketing strategy has attempted to increase current market share while offering new products into this market. Strategy implementation has been punctuated by a replacement of the management team and characterized by substantial investments in plant, equipment, R&D, and manufacturing control systems. Greatest disappointment has been experienced in attempts to increase market share, to reduce finished goods inventory, to involve workers in quality improvement programs, and to achieve anticipated payback from research and development expenditures.

As reflected by Table 2, the levels of investments projected for the future match closely those reported for the past. Efforts at quality improvement will continue; an increased emphasis will be placed upon control of quality in vendor products, and the successful involvement of workers in quality assurance programs is viewed as essential for their success. The current emphasis on the reduction of work in process and finished goods inventory will continue. Significant but reduced efforts will be directed at the control of raw material inventories, the construction of new plant and equipment, and the pruning of the work force. This deemphasis is consistent with the success of past investments reported in these areas. Significantly fewer plant closings and less turnover of management teams are anticipated. A noticeable increase in investment is projected for job automation and robotics, employee education and retraining, computer aided manufacturing, and information system to improve integration of the firm with its customers and suppliers. A continuation of current efforts to capture market share and to provide new products to current customers is considered important. An increase in efforts to pursue new markets with both current products and with new products is also anticipated.

The Strategic Planning Process

As seen from Figure 6 through 11, the typical U.S. manufacturing company produces a 5-year strategic plan of 10 to 50 pages on an annual basis. Executive and functional management are heavily involved in this process as are the financial and planning staffs. All groups are strongly supportive of the activity and understand the contents of the resulting strategic plan. Not surprisingly, executive management is considered to be the most involved, the most supportive and the most informed. Functional managers are somewhat less enthusiastic as explained by some later data from Section 4 of the questionnaire.

In rating strategic planning for their company (reference Table 3), the respondents graded the process as somewhat formal but reasonably fast and participative. The cost to the company was considered modest while the resulting plan was believed to be of good quality with a reasonably tight linkage to the subsequent operating plan. The respondents believed that substantial planning was performed currently within their companies but that even more was needed. The planning process was rated as enjoyable and of significant value this year; moreover repetition of the process was expected to be of even more value in the coming year.

The variety of computer systems shown in Figure 12a and 12b were typically used to support a strategic planning process. The capabilities of these systems rated weakest by the respondents were access to and forecasting of external data, and the incorporation and simulation of uncertainty in plans. The support of "What If" analysis and improved access to external data were the two system improvements rated most important. Figure 13 identifies the type of information to which better access is most required; competitors, potential customers, and industry developments head the list.

TABLE 1

PAST EFFORTS AND FUTURE PLANS TO IMPROVE COMPANY COMPETITIVENESS

Much has been written about efforts to improve the competitiveness of U.S. manufacturing companies. This section is intended to document the extent and success of such efforts.

First, check any area in which *substantial effort* has been applied by this business unit in the past three years. Then use the columns at the right to indicate any area in which these efforts have had *particularly* rewarding or disappointing results.

Substantial Effort (Number of Respondents)			Percent of Those Who Tried	
			Rewarding Results	Disappointing Results
Quality Improvement				
a.	123	– Quality Circles/Worker Involvement.....	72	23
b.	108	– Statistical Quality Control.....	81	11
c.	95	– Vendor Quality Control.....	75	9
Inventory Reduction				
d.	125	– Raw Material.....	82	11
e.	116	– Work in Process.....	75	18
f.	115	– Finished Goods.....	71	24
New Investments				
g.	127	– Plant and Equipment.....	85	10
h.	111	– Research and Development.....	69	24
i.	78	– Education/Retraining.....	74	21
Manufacturing Reorganization				
j.	98	– New Management Team.....	80	10
k.	33	– New Incentive System.....	70	21
l.	69	– New Labor/Management Relationship.....	78	16
m.	106	– Work Force Reduction.....	90	8
n.	48	– Labor Cost Concessions.....	71	27
o.	68	– Plant Closings.....	85	9
p.	25	– Plant Relocation.....	80	12
q.	69	– Job Automation and Robotics.....	73	16
New Information Systems				
r.	55	– Integration with Customers.....	69	22
s.	35	– Integration with Suppliers.....	74	23
t.	66	– Integration Across Business Functions.....	65	26
u.	87	– Computer-Aided Design (CAD).....	79	9
v.	59	– Computer-Aided Manufacturing (CAM).....	71	19
w.	116	– Production/Inventory Control.....	74	21
x.	73	– Warehousing/Distribution Control.....	80	14
y.	77	– Product Cost Accounting.....	65	27
New Market Strategy				
aa.	118	– Increase Share of Current Market.....	60	32
bb.	71	– New Markets for Current Products.....	63	27
cc.	119	– New Products for Current Markets.....	82	11
dd.	68	– New Products for New Markets.....	72	27
ee.	21	– Backward Integration Toward Suppliers.....	62	29
ff.	33	– Forward Integration Toward Customers.....	64	24
gg.	24	– Lateral Integration with Other Business Units...	71	25
hh.	47	– Narrowing Product/Market Focus.....	81	13

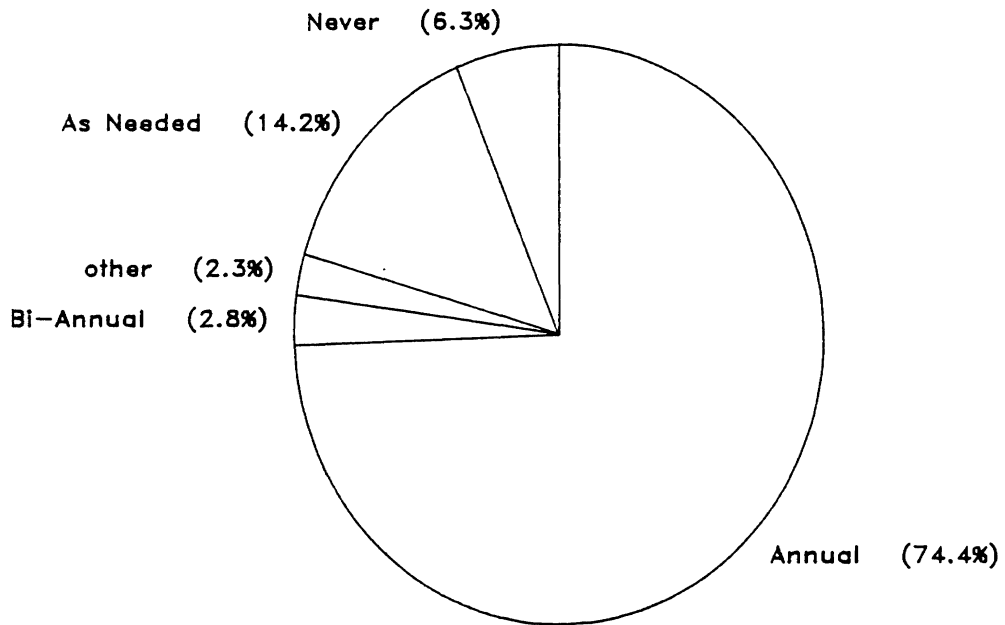
TABLE 2

The list from Table 1 is repeated below. Check any *areas which will be emphasized* by the business unit *to improve performance* in the next three years; then check those areas that you consider most important.

	Will be Emphasized (Number of Respondents)		Percent of Those Who Will Most Important
Quality Improvement			
a.	114	–Quality Circles/Worker Involvement.....	80
b.	102	–Statistical Quality Control.....	58
c.	108	–Vendor Quality Control.....	57
Inventory Reduction			
d.	105	–Raw Material.....	49
e.	118	–Work in Process.....	61
f.	112	–Finished Goods.....	59
New Investments			
g.	103	–Plant and Equipment.....	65
h.	109	–Research and Development.....	73
i.	94	–Education/Retraining.....	67
Manufacturing Reorganization			
j.	35	–New Management Team.....	63
k.	32	–New Incentive System.....	59
l.	52	–New Labor/Management Relationship.....	85
m.	74	–Work Force Reduction.....	57
n.	30	–Labor Cost Concessions.....	57
o.	18	–Plant Closings.....	50
p.	20	–Plant Relocation.....	50
q.	87	–Job Automation and Robotics.....	71
New Information Systems			
r.	76	–Integration with Customers.....	58
s.	53	–Integration with Suppliers.....	60
t.	68	–Integration Across Business Functions.....	62
u.	77	–Computer-Aided Design (CAD).....	48
v.	71	–Computer-Aided Manufacturing (CAM).....	66
w.	103	–Production/Inventory Control.....	60
x.	56	–Warehousing/Distribution Control.....	46
y.	80	–Product Cost Accounting.....	50
New Market Strategy			
aa.	114	–Increase Share of Current Market.....	78
bb.	77	–New Markets for Current Products.....	65
cc.	122	–New Products for Current Markets.....	79
dd.	83	–New Products for New Markets.....	70
ee.	16	–Backward Integration Toward Suppliers.....	63
ff.	36	–Forward Integration Toward Customers.....	69
gg.	28	–Lateral Integration with Other Business Units...	61
hh.	27	–Narrowing Product/Market Focus.....	63

FIGURE 6

Frequency of Strategic Planning
question 3.1



How frequently is a long-range strategic plan created for this business unit? (If you check "Never," skip to question 6.)

(74.4%) Annual

(14.2%) No fixed schedule, done as needed

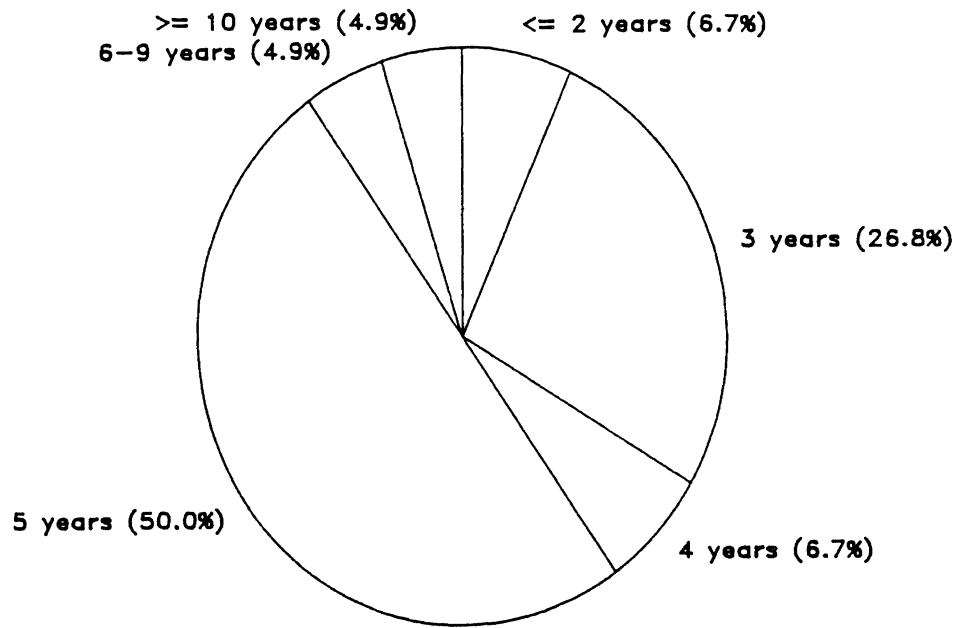
(2.8%) Every other year

(6.3%) Never

(2.3%) Other: _____

FIGURE 7

Strategic Planning Horizon
question 3.2

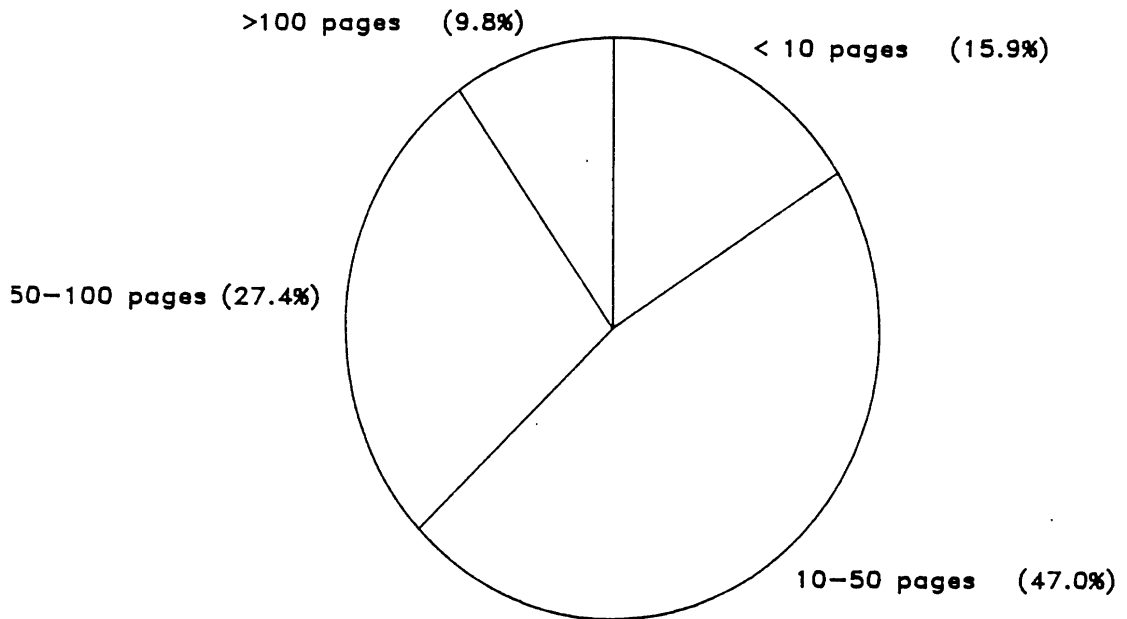


What is the *planning horizon* for the strategic plan?

4.57 years

FIGURE 8

Length of the Planning Document
question 3.3



What is the approximate *length* of the final strategic planning document?

(15.9%) less than 10 pages

(27.4%) 50-100 pages

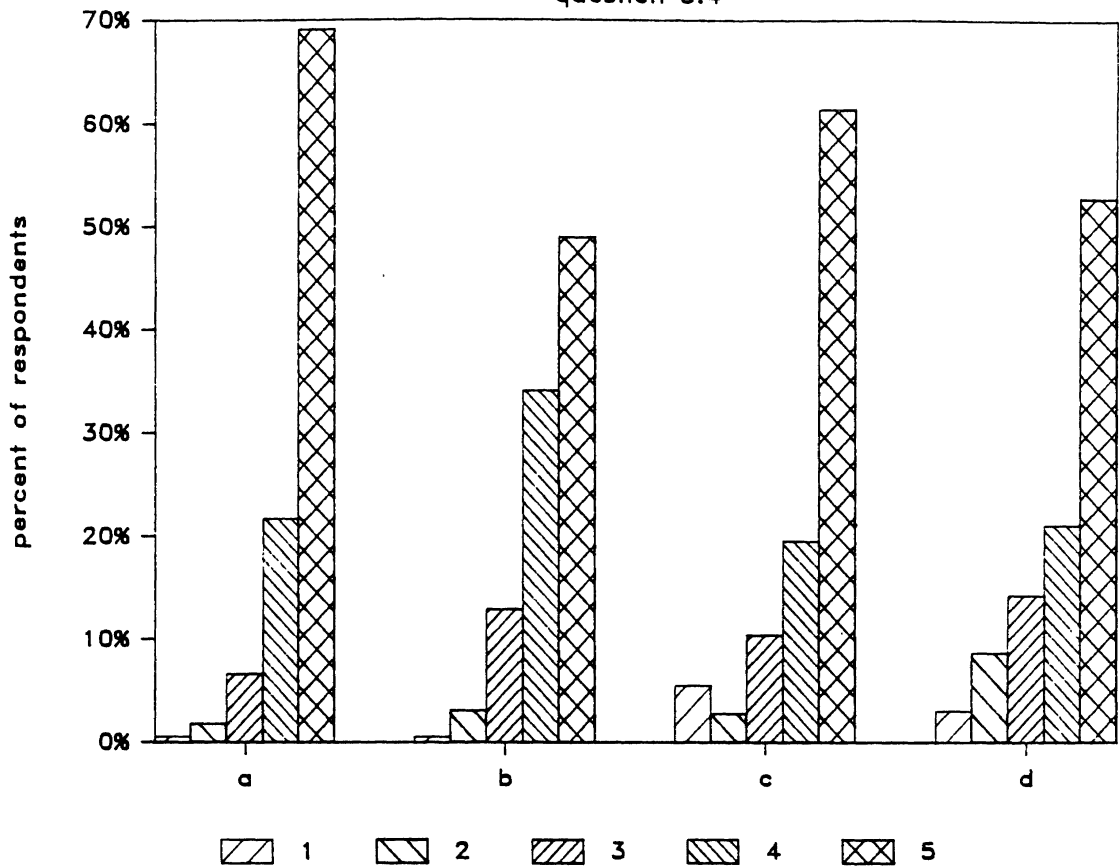
(47.0%) 10 to 50 pages

(9.8%) more than 100 pages

FIGURE 9

Involvement of Groups in Planning

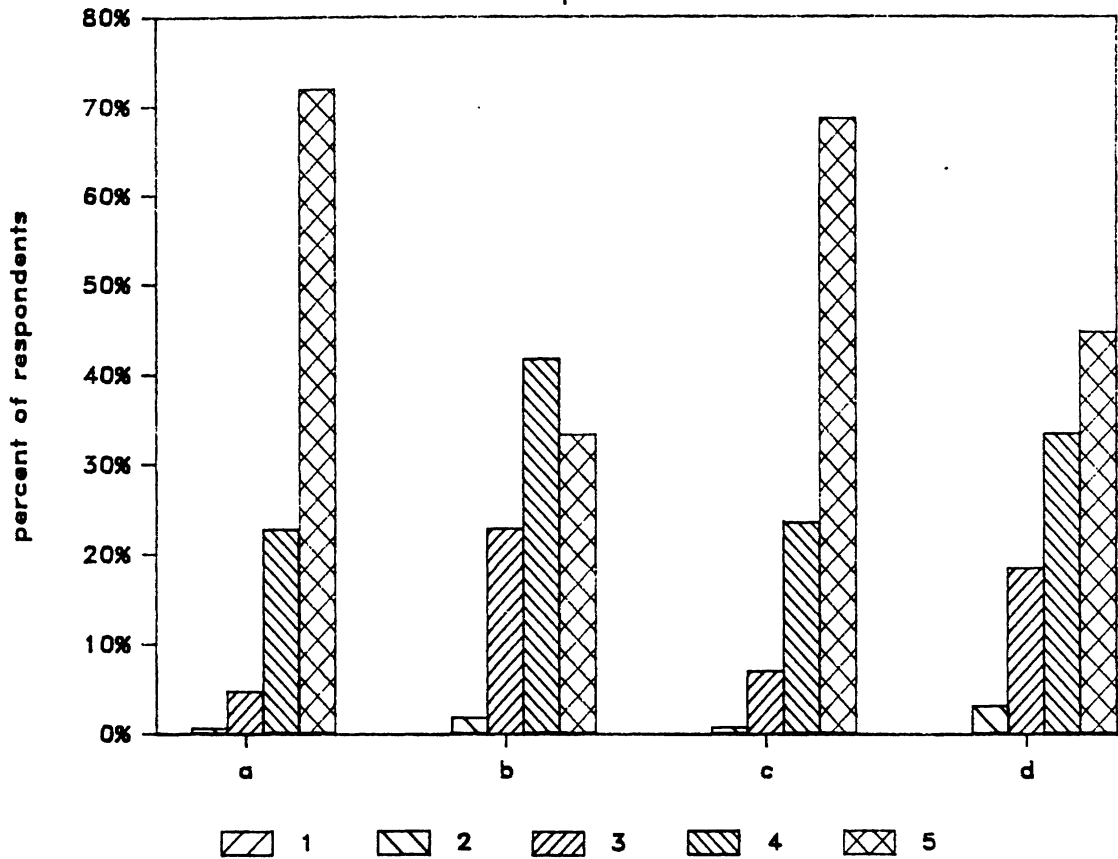
question 3.4



How involved is each of the following groups in the preparation of the strategic plan?

	Average Rating	Percent by Rating				
		No Real Involvement			Deeply Involved	
		1	2	3	4	5
a. Executive Management.....	4.57	0.6	1.8	6.7	21.8	69.1
b. Functional Managers.....	4.28	0.6	3.1	13.0	34.2	49.1
c. Planning Staff.....	4.29	5.6	2.8	10.5	19.6	61.5
d. Financial Staff.....	4.12	3.1	8.7	14.3	21.1	52.8

FIGURE 10
Attitude of Groups
question 3.5



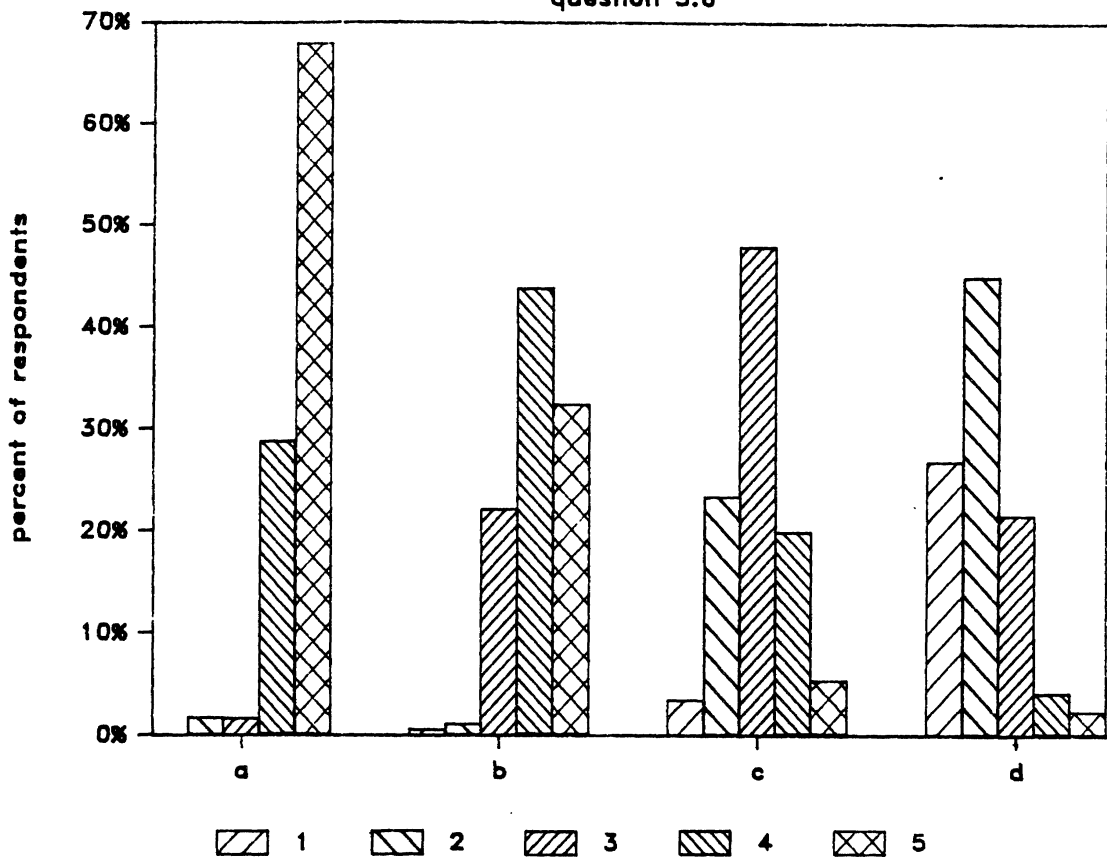
How would you characterize the *attitude* of each of the following groups toward the current strategic planning process?

	Average Rating	Percent by Rating				
		Strong Opposition		Neutral		Strong Support
		1	2	3	4	5
a. Executive Management.....	4.66	0.0	0.6	4.8	22.8	71.9
b. Functional Managers.....	4.07	0.0	1.8	23.0	41.8	33.3
c. Planning Staff.....	4.60	0.0	0.7	7.1	23.6	68.6
d. Financial Staff.....	4.20	0.0	3.1	18.6	33.5	44.7

FIGURE 11

Understanding by Groups

question 3.6



How well do the following groups *understand* the goals, strategy and overall business plans in the business unit?

	Average Rating	Percent by Rating				
		No Understanding			Clear Understanding	
		1	2	3	4	5
a. Executive Management.....	4.63	0.0	1.7	1.7	28.8	67.8
b. Functional Managers.....	4.06	0.6	1.1	22.2	43.8	32.4
c. Supervisors.....	3.00	3.5	23.4	48.0	19.9	5.3
d. Hourly Workers.....	2.10	26.9	45.0	21.6	4.1	2.3

TABLE 3

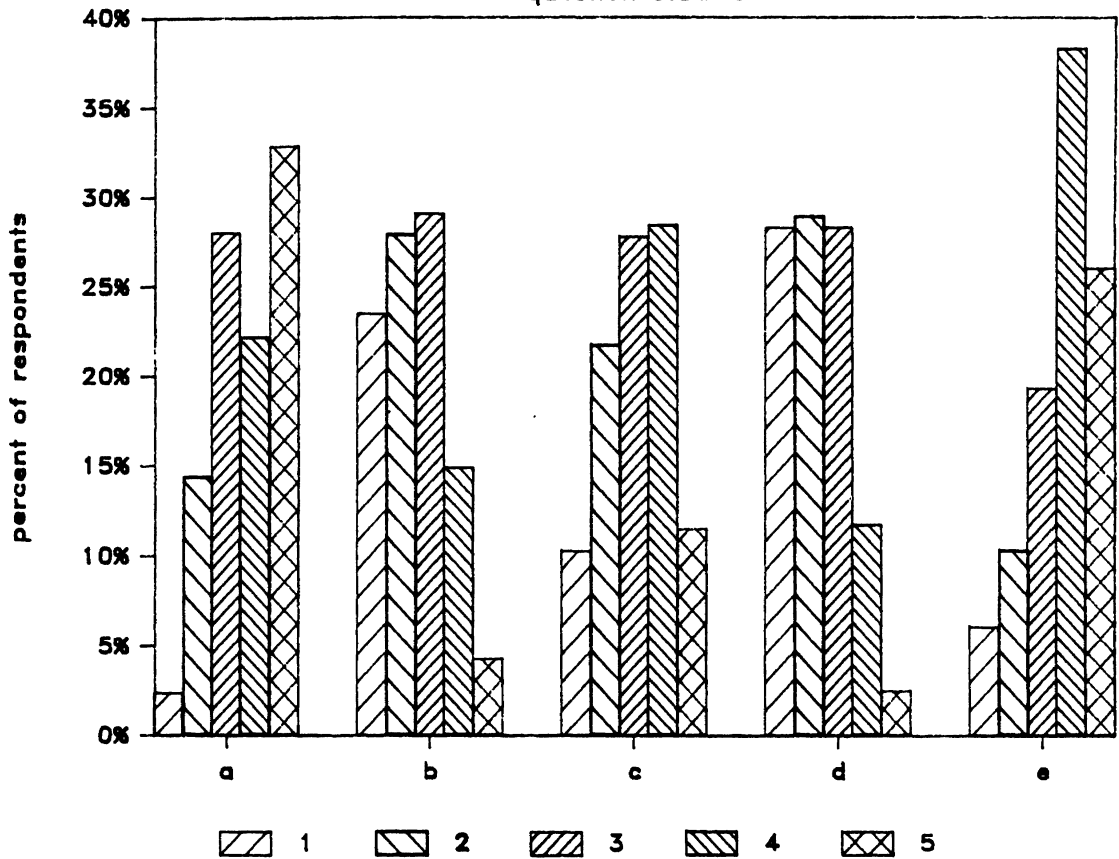
Rate the business unit's *strategic planning* in the following dimensions:

	Average Rating	Percent by Rating				
		Little 1	2	3	4	Great 5
a. Amount of Planning.....	3.64	2.8	9.7	28.4	39.2	19.9
b. Formality of Process.....	3.48	Informal 7.9	13.5	21.3	37.1	Formal 20.2
c. Speed of Process.....	3.07	Slow 4.5	20.9	44.1	24.3	Fast 6.2
d. Leadership Style.....	3.69	Directive 3.4	13.0	20.3	37.3	Participative 26.0
e. Linkage to Operating Plans.....	3.97	Little 1.7	5.1	22.0	37.3	Great 33.9
f. Cost to Company.....	2.38	Low 18.6	41.2	25.4	12.4	High 2.3
g. Value of Process This Year.....	3.56	Low 4.0	11.3	27.7	39.0	High 18.1
h. Value of Repeating Next Year.....	3.84	Low 6.3	4.5	22.7	31.8	High 34.7
i. Adequacy of Process.....	3.58	Need less 0.0	6.2	43.8	35.4	Need more 14.6
j. Quality of Company Data Used.....	3.67	Inaccurate 2.3	8.5	26.7	44.9	Accurate 17.6
k. Quality of External Data Used.....	3.14	Inaccurate 0.6	20.7	45.4	30.5	Accurate 2.9
l. Quality of the Resulting Plan.....	3.52	Low 1.7	5.7	38.6	46.6	High 7.4
m. Your Enjoyment of the Process.....	3.85	Dislike 2.3	6.8	22.0	41.2	Enjoy 27.7

FIGURE 12a

Rating of Current Computer Support

question 3.8a-e



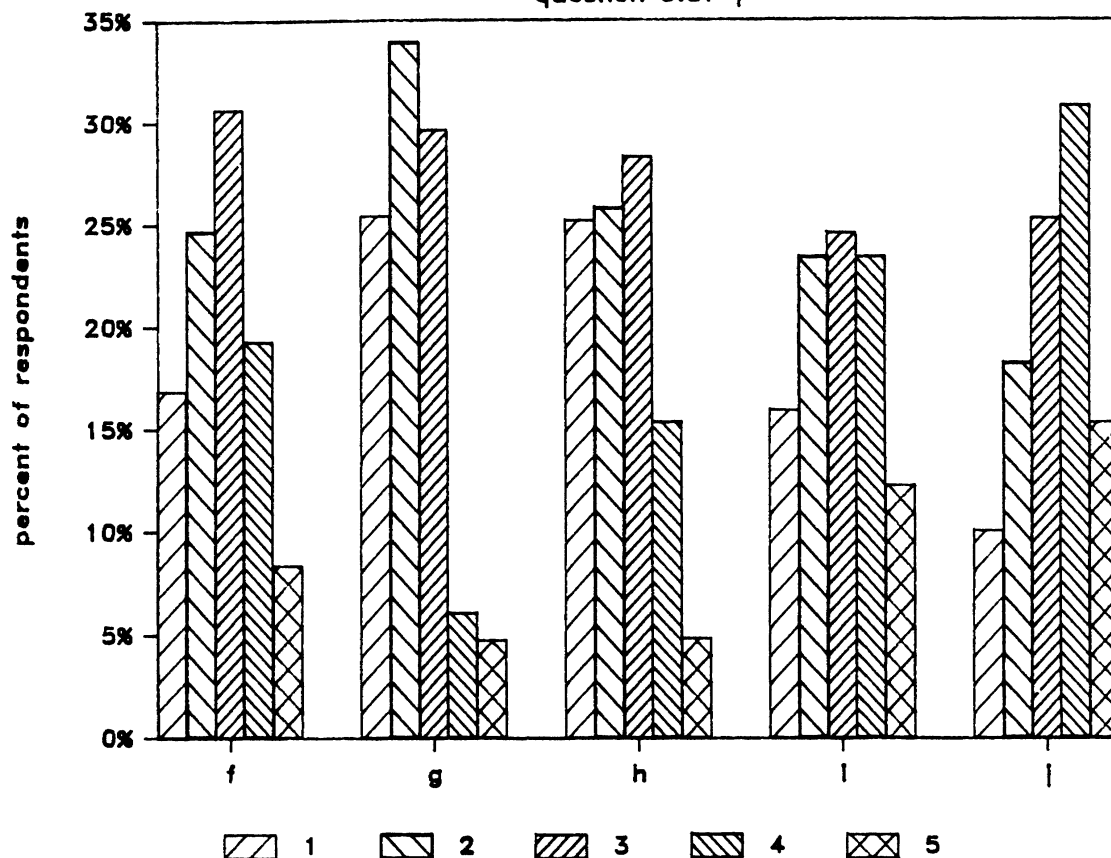
Rate your current computing systems as they support planning in each of the following areas. Then check 3 (or fewer) areas that you would most like to see improved.

	Average Rating	Percent by Rating					Should be Improved
		Weak				Strong	
		1	2	3	4	5	
a. Access to Internal Data.....	3.69	2.4	14.4	28.1	22.2	32.9	25.0
b. Access to External Data.....	2.48	23.6	28.0	29.2	14.9	4.3	36.1
c. Forecasting of Internal Data.....	3.09	10.3	21.8	27.9	28.5	11.5	24.4
d. Forecasting of External Data.....	2.31	28.4	29.0	28.4	11.7	2.5	31.7
e. Financial Implications of Plans.....	3.68	6.1	10.3	19.4	38.2	26.1	18.9

FIGURE 12b

Rating of Current Computer Support

question 3.8f-|

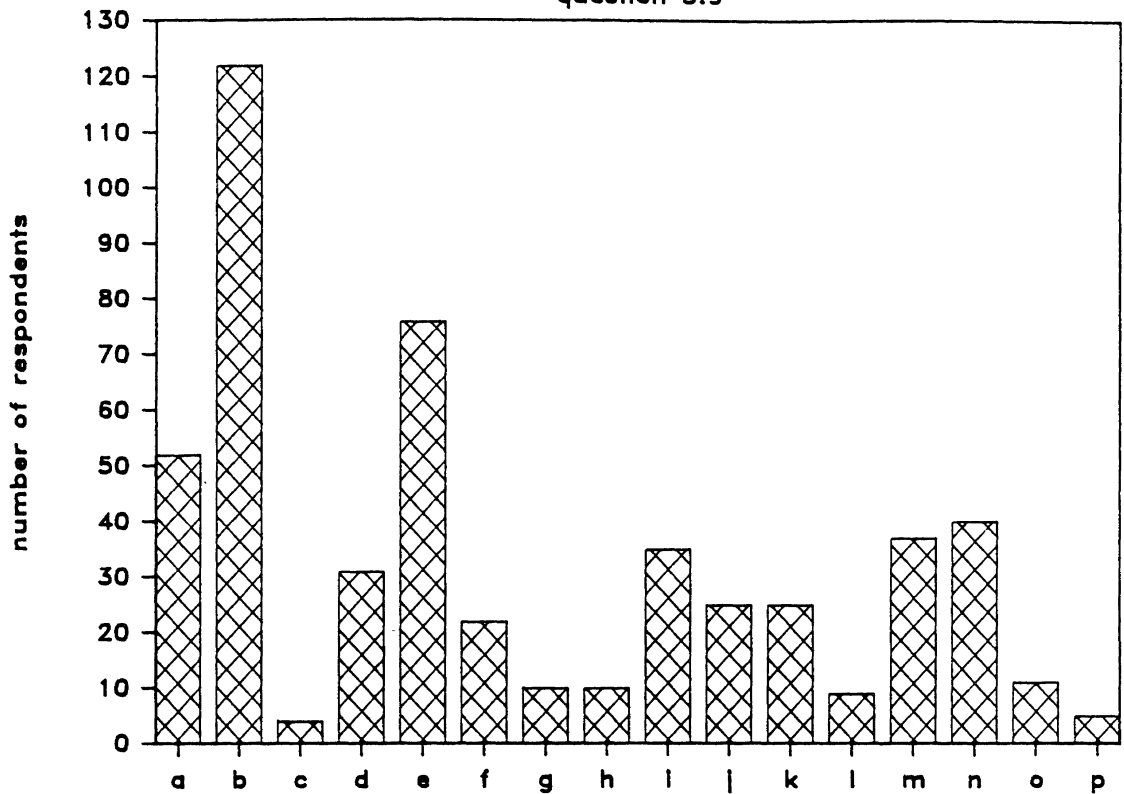


f. Support of "What If" Analysis.....	2.78	16.9	24.7	30.7	19.3	8.4	46.1
g. Simulation of Uncertainty in Plans..	2.31	25.5	33.9	29.7	6.1	4.8	31.1
h. Quantitative Optimization of Plans..	2.49	25.3	25.9	28.4	15.4	4.9	24.4
i. Graphical Presentation of Plans.....	2.93	16.0	23.5	24.7	23.5	12.3	12.8
j. Performance Monitoring.....	3.23	10.1	18.3	25.4	30.8	15.4	30.6

FIGURE 13

Where to Improve Planning Information

question 3.9



If you could *improve the quality of information* available to the business unit *for planning*, in which 3 (or fewer) areas would it be?

Percent Checked		Percent Checked	
a. 28.9	Industry	i. 19.4	Sales
b. 67.8	Competitor	j. 13.9	Product Quality
c. 2.2	Supplier	k. 13.9	Financial
d. 17.2	Current Customer	l. 5.0	Accounting
e. 42.2	Potential Customer	m. 20.6	Economic
f. 12.2	Production	n. 22.2	Technological
g. 5.6	Inventory	o. 6.1	Legal/Regulatory
h. 5.6	Distribution	p. 2.8	Social/National

Attitudes Toward Strategic Planning and Change

Strategic planning enjoys a somewhat checkered reputation in many companies. Philosophically everyone agrees that it is needed, but pragmatically the attention demanded by daily operations leaves little time to do it. The goal of Section 4 of our questionnaire was to compile a large sample reaction to some classical questions asked about strategic planning.

Why is strategic planning avoided?

What is wrong with the current strategic planning process?

Why is strategic planning required by executive management?

What are the keys to success in accomplishing strategic change?

What advice would you offer a CEO seeking strategic change?

Participant reactions to these questions are shown in Figure 14 through 18. For each question, a list of candidate responses obtained in our onsite interviews was provided to the respondents. They were asked to strike out any listed response that they considered wrong or irrelevant, and then to select or insert three or fewer responses they personally would offer to the question.

A clear consensus emerged. People avoid strategic planning because it is a hard, unfamiliar and imprecise activity that does not move today's product. The resulting plan is criticized as having more form than content, and as one in which one year of real plan is forced to generate five years of numbers. Most damning perhaps is the perception that the plan is never really used by anybody.

An argument commonly used to counter these criticisms is that the real value of planning lies not in the plan itself, but rather in the benefits derived from the planning process. Question 4.4 shown in Figure 16 pursued this issue by soliciting opinions on the benefits sought from strategic planning by the CEO or President of the company. The dominant responses suggest that the most important benefit of the planning process is that it forges commitment to shared organization goals while it provides a forum in which the CEO can give direction to subordinates. In addition, planning activities have the positive effects of requiring managers to look up from the detail of their daily work, and of forcing them to take a broad market focus. Finally, the plan itself has value in that it becomes a formalized contract for action against which performance can be measured.

The keys to success in accomplishing strategic changes are summarized by Figure 17. These data suggest that when given a clear mission, objectives, and goals, then confident talented managers who take a realistic view of the market will succeed if a shared commitment to a strategic plan is developed through active participation in its design. The survey results clearly indicate that luck is rarely a significant factor in achieving success.

The advice offered to a CEO attempting to accomplish strategic change is straightforward and flows naturally from the scenario for success described above. Figure 18 reveals that the most important task of the CEO in fostering strategic change is to establish a shared vision of the new world. Interviews suggest that this vision must be as uncomplicated as possible so that it can be easily described, easily understood, easily referred to, and easily repeated to others. With such a vision, tenacious commitment to specific goals can be developed by assuring broad and active participation in the planning process. Strategic change often implies a radical departure from current concepts, organizational structures, and modes of operation. The creativity required to generate such ideas and the courage needed to champion them must be consciously nurtured. Mechanisms to stimulate creativity reported in our interviews include: inter-divisional transfers, hiring from outside the company, offsite planning meetings, industry case discussion, cross-functional planning teams, planning session facilitators, formalized brainstorming sessions, and awards which recognize successful innovation. Finally, as a strategic plan is set, specific goals should be stated in operational terms. This enables the monitoring of progress in strategy implementation, provides a basis for rewarding success, and reaffirms management's commitment to the strategic plan.

FIGURE 14

We would like your answer to five questions that were previously asked of 50 manufacturing executives during in-depth interviews. The variety of answers we received from them are shown.

First, draw a line through any response which you consider wrong or irrelevant. Then check 3 (or fewer) responses that you would offer to answer each question.

2. Why do people *avoid strategic planning* within the business unit?

	No. Who Checked	No. Who Deleted
a. "The result may change their jobs"	31	52
b. "Planning is hard and unfamiliar work"	147	10
c. "Planning is not needed when times are good"	20	64
d. "Resources are not available when times are tough"	18	42
e. "Looking in the mirror is not pleasant for them"	26	54
f. "It is hard to see the future clearly"	100	19
g. "Creating change is dangerous"	20	56
h. "Planning does not move the product"	50	44
i. "The sun will return tomorrow"	5	92

Why People Avoid Strategic Planning
question 4.2

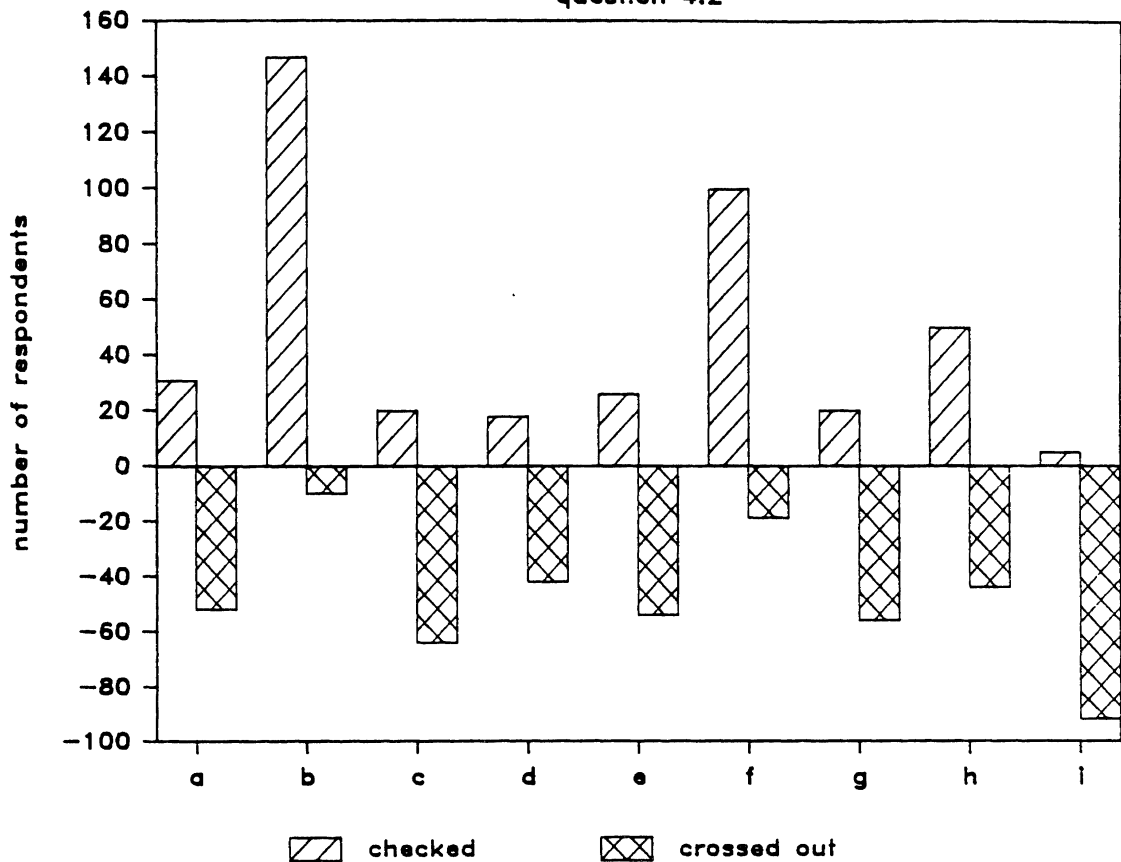
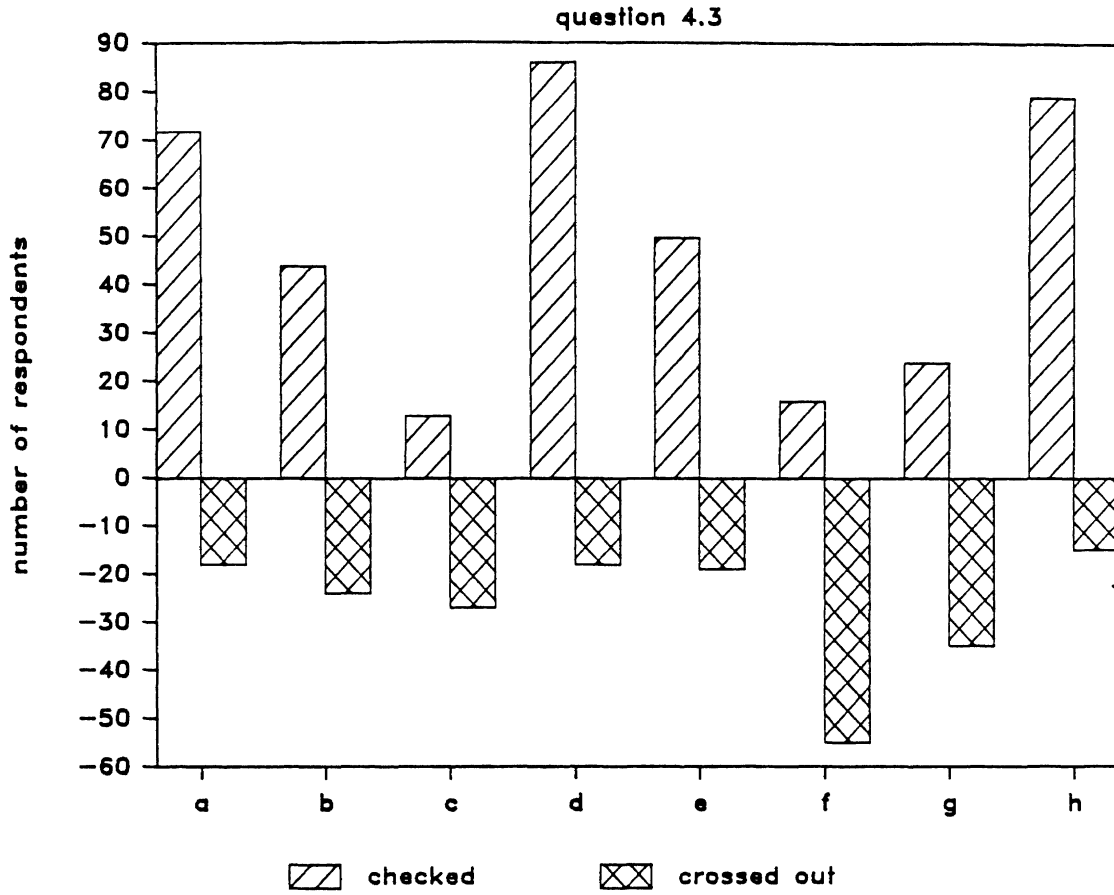


FIGURE 15

Common Criticisms of Planning Process

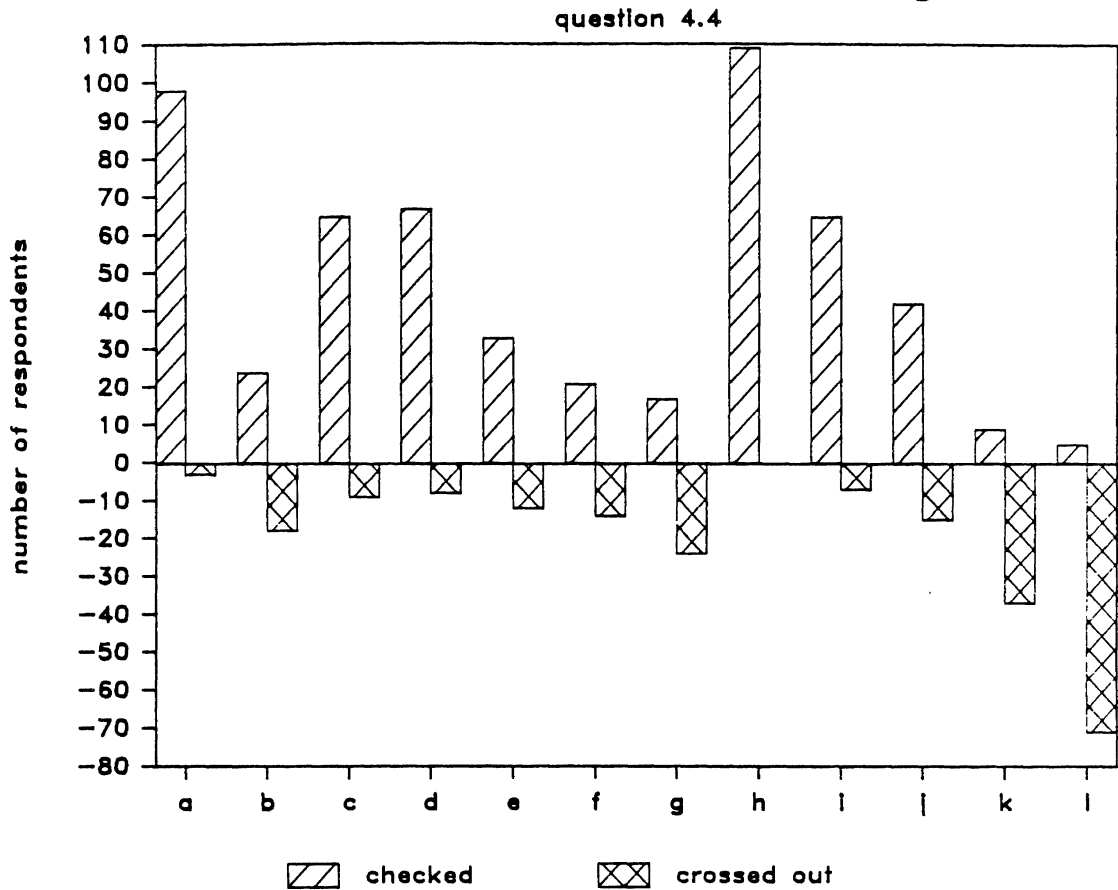


What are the most *common criticisms* of the strategic planning process in this business unit?

	No. Who Checked	No. Who Deleted
a. "The plan has more form than content"	72	18
b. "There is little connection to operating plans"	44	24
c. "There is little connection to capital appropriation"	13	27
d. "It is one year of plan and five years of numbers"	86	18
e. "The precision of the numbers is confused with their accuracy"	50	19
f. "The plan is used as a whip"	16	55
g. "Planning is required, at times when it is not needed"	24	35
h. "After all the work, the plan is not used"	79	15

FIGURE 16

Benefits Sought from Planning Process



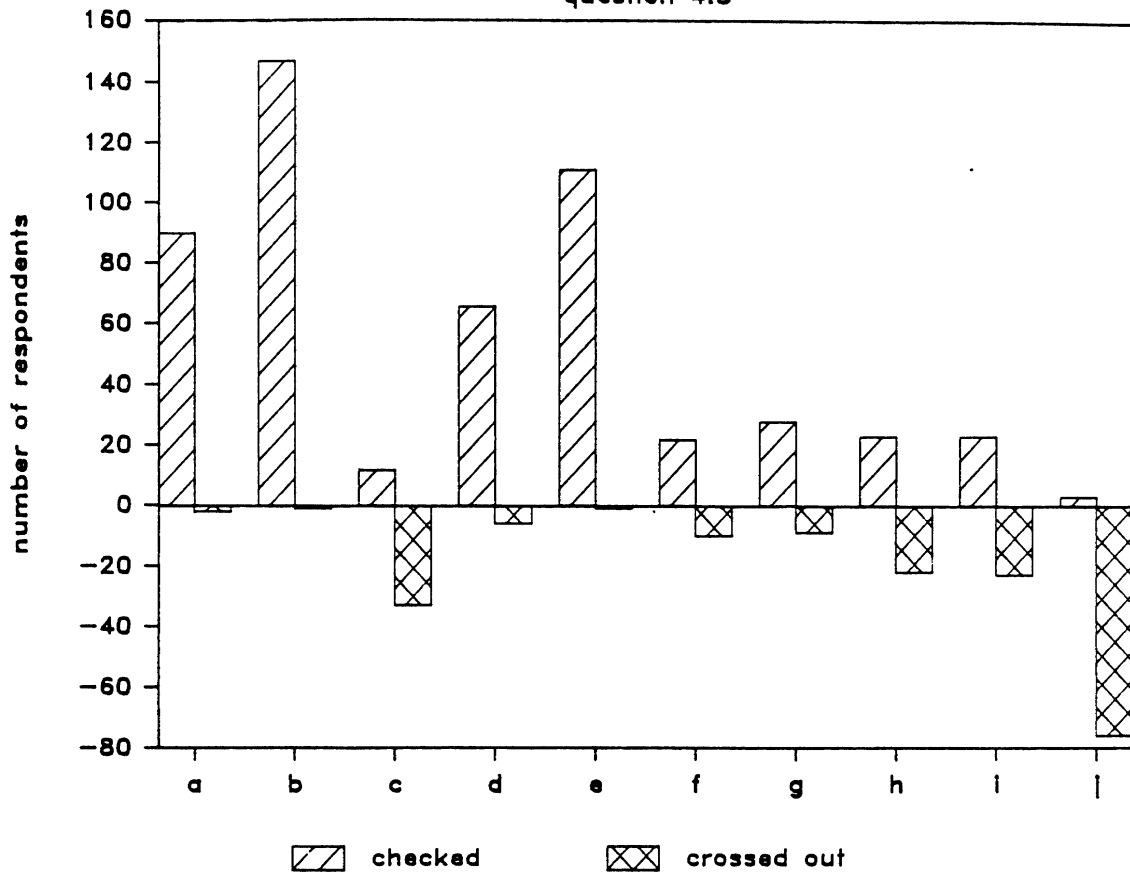
What do you feel are the major goals or *benefits sought* from the strategic planning process by the CEO or President of this company?

	No. Who Checked	No. Who Deleted
a. "Forum to provide direction to managers"	98	3
b. "Opportunity to evaluate and coach managers"	24	18
c. "Forces managers to take a market focus"	65	9
d. "Forces managers to look up from daily detail"	67	8
e. "Forces managers to communicate with each other"	33	12
f. "Documents 'common' assumptions"	21	14
g. "Disrupts habit and breaks mindblocks"	17	24
h. "Forges commitment to shared goals"	109	0
i. "Plan becomes our contract for action"	65	7
j. "Fair means for allocating scarce resources"	42	15
k. "Allows CEO to disengage from tactics"	9	37
l. "Window dressing to justify investments"	5	71

FIGURE 17

Keys to Success in Strategic Change

question 4.5

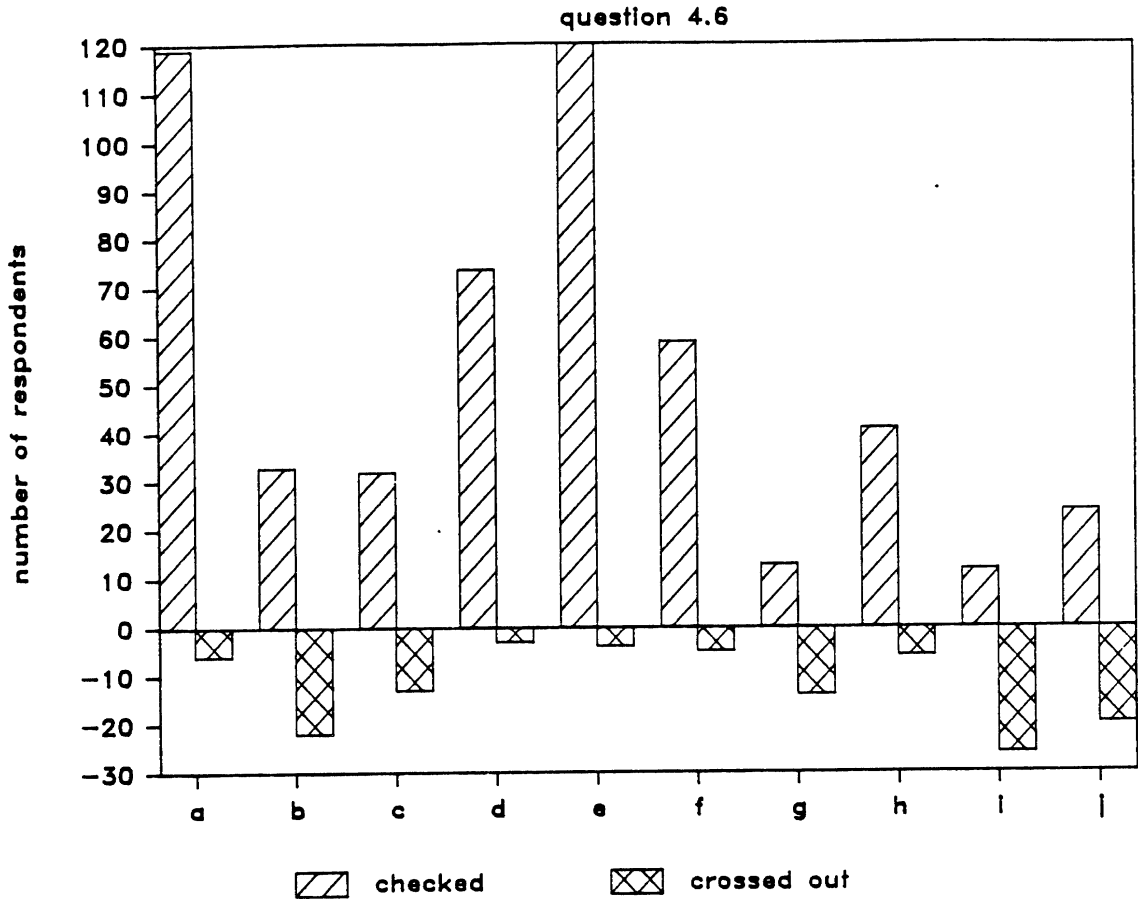


What do you feel are the *keys to success* in accomplishing strategic change?

	No. Who Checked	No. Who Deleted
a. "Realistic view of the market"	90	2
b. "Clear mission, objectives and goals"	147	1
c. "Survival as a central issue"	12	33
d. "Confident, talented managers"	66	6
e. "Commitment through participation"	111	1
f. "Incorporate uncertainties into the planning process"	22	10
g. "Build contingencies into plans"	28	9
h. "Plan the implementation of change in detail"	23	22
i. "Use the plan conspicuously"	23	23
j. "Luck dominates every other factor"	3	76

FIGURE 18

Advice to CEO on Strategic Change



What *advice* would you offer to the CEO of a company who is attempting to accomplish strategic change?

	No. Who Checked	No. Who Deleted
a. "Establish a vision—put a clear stake in the ground"	119	6
b. "Tell them, ask them, listen, and tell them again"	33	22
c. "Focus on substantial change"	32	13
d. "Nurture creativity"	74	3
e. "Forge commitment through participation"	120	4
f. "State goals in operational terms"	59	5
g. "Don't second guess tactical decisions"	13	14
h. "Monitor and reward conspicuously"	41	6
i. "Maintain poise under pressure"	12	26
j. "Don't move the stake in the ground lightly"	24	20

Implications for Management Action

None of the individual facts uncovered by this research were earth shaking. And we wondered as we finished compiling our results whether their publication would provide real value to our readers. What after all could be the value of summarizing the obvious?

One of the intriguing facts about good management is that, on the face of it, it all appears so easy and simple. The number of real choices available to management is always limited, and only a few basic principles are ever involved in making a choice. The complexity of management lies not in the conception of its principles, but rather in the timely application of these principles to problems that require attention. The trick to good management is in the early recognition of problems, so that "obvious" principles can be applied to address them.

What then is the practical value of this report? The answer derives from an old story about two hunters who were awoken one night by a hungry bear clawing at the front of their tent. Recognizing the danger that they were in, the first hunter immediately sat up and began putting on a pair of running shoes that were poised beside his sleeping bag for just such a possibility. His less athletic companion realized that such efforts were futile and chided him saying "You idiot, don't you realize that you can't outrun that bear!" The first hunter paused briefly to reply as he scrambled past the startled bear "You misunderstand the problem, you see I don't need to outrun the bear, I only need to outrun you!"

This report should raise two important questions in the mind of a manufacturing executive: first, "In light of the concerns expressed by other executives, are there in fact bears out there that we in this company have been blithely ignoring?"; and second, "Considering our own efforts and investments in strategic change vis-a-vis those reported here, could it be that our competitors have been effectively trimming down their operations and breaking in new running shoes, while we have been paying only lip service to the need to become more competitive?"

If there is a problem of strategic adaptation within your firm, each of the following steps is likely to uncover symptoms of it:

1. Personally answer the questionnaire provided by the Appendix and contrast your own views with those of our sample of executives. Is there a reasonable explanation for each substantial difference of opinion?
2. Distribute this report to your management team to stimulate discussions on the causes, process, and direction of strategic changes occurring within manufacturing companies in this country. You may choose to pursue these discussions either informally in a series of luncheon conversations, or more formally in a meeting convened for this precise purpose. Does everybody really believe that the rules of the game for a profitable manufacturing firm are different today than they were ten years ago? Do they understand the magnitude of the changes required within your firm in order to remain competitive into the 1990s? What needs to be done? Who will do it?
3. Have the questionnaire complete anonymously by your top four levels of management. Use the summarized results as a basis for a day's discussion at your next management retreat. Experience suggests that you will discover surprising variation in opinions on:
 - the nature and magnitude of the competitive threats faced by your firm,
 - the extent and success of past efforts to improve your competitiveness,
 - the strengths and weaknesses of your strategic planning process,
 - the real importance that is attached to current programs of strategic change, and
 - the adequacy of your information systems to support either your strategy formulation or its implementation.

We are confident that the benefits of these steps will be worth the cost. Our research reveals a wide variance in the degree of strategic adaptation that has occurred across manufacturing firms in this country. Many remain unprepared for the decade ahead. If the management of strategic change is indeed the single most important responsibility of a firm's executive management, then the recognition of the need for such change is the first critical step in addressing that responsibility.

APPENDIX



GRADUATE SCHOOL OF BUSINESS ADMINISTRATION THE UNIVERSITY OF MICHIGAN

Survey of Management Attitudes Toward Issues of Strategic Change in Manufacturing Companies

This questionnaire is an essential part of a major research project conducted by the Graduate School of Business Administration at The University of Michigan. It is designed to identify strategic issues facing manufacturing companies today and to summarize plans for dealing with those issues.

The survey has 30 questions divided into five sections as follows:

Section	Purpose
1	To learn about competitive pressures upon the business unit. (3 questions)
2	To learn of past attempts and future plans to improve competitiveness. (2 questions)
3	To understand the nature of the strategic planning process. (9 questions)
4	To compare your attitudes toward strategic planning with those of other manufacturing executives. (6 questions)
5	To gather facts about the business unit for which you have completed the questionnaire. (10 questions)

All responses will be treated as completely confidential. With this questionnaire, you should receive an addressed, postage-prepaid envelope in which you can mail your completed questionnaire directly to the Michigan Business School. No one except members of the research team will ever see your responses. No participating company or person will be mentioned by name or identified in any way. Responses will be reported only in summaries and tabulations.

The questionnaire was designed to be answered by a high level manufacturing executive within a business unit. The business unit may be an entire company, a group or a division. *Whatever you choose as the unit of analysis, your answers should apply to the same business unit throughout the survey.* If any question is clearly not applicable to your kind of company or your situation, write "N/A" beside the question and continue to the next question.

Your participation in this research is greatly appreciated. To receive a copy of our final report, simply enclose a note or your business card in the return envelope.

SECTION 1

THE NATURE OF CHANGE AND COMPETITIVE PRESSURES

1. Has *innovation or technological change* had a noticeable *effect upon* any of the following in the past five years for this business unit?

	Average Rating	Percent by Rating				
		None 1	Minor 2	3	4	Major 5
a. Methods of Production.....	3.84	0.6	12.4	19.1	38.2	29.8
b. Nature of the Product.....	3.37	4.0	22.0	28.2	24.9	20.9
c. Control of Product Quality...	3.60	3.4	10.7	32.2	29.4	24.3
d. Nature of the Market.....	3.39	4.5	16.3	36.5	21.3	21.3
e. Methods of Sale.....	3.58	13.0	41.2	26.0	14.7	5.1
f. Methods of Distribution.....	2.56	18.1	36.7	22.6	15.8	6.8
g. Relationships with Customers.	3.15	5.6	24.9	26.6	34.5	8.5
h. Relationships with Suppliers..	3.07	8.0	27.8	25.6	26.7	11.9

2. Looking ahead five years, how *important* are the following product characteristics likely to be *to the customers* of this business unit?

	Average Rating	Percent by Rating				
		Little 1	2	3	4	Critical 5
a. Low Price.....	3.77	2.3	6.9	31.0	31.0	28.7
b. Product Quality.....	4.61	0.0	1.1	3.4	28.8	66.7
c. Reliable Delivery.....	4.27	0.6	1.7	13.0	40.1	44.6
d. Just-in-Time Delivery.....	3.10	11.6	20.8	29.5	22.5	15.6
e. Delivery on Short Notice.....	3.44	5.1	10.9	36.0	30.9	17.1
f. Product Innovation.....	3.75	5.7	9.1	21.7	31.4	32.0
g. Rapid Redesign of Product...	3.00	19.5	16.1	23.6	26.4	14.4
h. Product Design Assistance....	2.86	20.8	17.3	27.2	24.3	10.4
i. Service After Sales.....	3.55	6.3	15.3	22.2	29.5	26.7

3. Looking ahead five years, of how much *concern* are the following *to the management* of this business unit?

	Average Rating	Percent by Rating				
		Little 1	2	3	4	Critical 5
Competition						
a. Price Pressures.....	4.37	1.1	0.6	16.9	23.6	57.9
b. Product Innovation.....	3.96	2.2	8.4	20.8	28.7	39.9
c. Global Nature.....	3.61	7.3	11.8	23.0	28.1	29.8
d. Product Substitutes.....	2.97	12.1	25.9	29.3	19.0	13.8
Customer						
e. Quality Demands.....	4.52	0.6	1.1	6.8	28.8	62.7
f. Delivery Demands.....	3.99	0.6	5.1	19.8	43.5	31.1
g. Redesign Demands.....	2.79	13.1	25.1	38.9	15.4	7.4
h. Dwindling Markets.....	3.17	11.8	16.9	33.1	19.1	19.1
Supplier						
i. Reliability of Delivery.....	4.03	1.7	3.4	18.1	44.1	32.8
j. Quality of Product.....	4.49	0.6	2.8	7.3	26.0	63.3
k. Price of Product.....	4.18	0.0	3.4	18.2	35.8	42.6
Cost Components						
l. Government Regulation.....	3.20	10.7	19.7	27.0	24.2	18.5
m. Labor.....	3.51	5.1	12.9	30.9	28.7	22.5
n. Overhead/Burden.....	4.05	0.6	7.3	17.5	35.6	39.0
o. Inventories.....	3.93	1.1	6.8	22.2	37.5	32.4
Aging						
p. Plant/Equipment.....	3.36	3.4	16.4	36.2	29.4	14.7
q. Process Technology.....	3.76	1.7	9.0	27.0	36.0	26.4
r. Information Systems.....	3.83	1.7	5.6	25.8	42.1	24.7
s. Work Force.....	3.25	3.9	20.8	34.8	27.5	12.9
Management						
t. Vision/Leadership.....	4.56	1.1	1.1	5.6	25.3	66.9
u. Obsolescence.....	3.26	3.9	18.0	35.4	33.1	9.6
v. Succession.....	3.74	2.8	7.3	26.4	39.9	23.6

SECTION 2

PAST EFFORTS AND FUTURE PLANS TO IMPROVE COMPANY COMPETITIVENESS

Much has been written about efforts to improve the competitiveness of U.S. manufacturing companies. This section is intended to document the extent and success of such efforts.

1. First, check any area in which *substantial effort* has been applied by this business unit in the past three years. Then use the columns at the right to indicate any area in which these efforts have had *particularly* rewarding or disappointing results.

	Substantial Effort (Number of Respondents)		Percent of Those Who Tried	
			Rewarding Results	Disappointing Results
Quality Improvement				
a.	123	–Quality Circles/Worker Involvement.....	72	23
b.	108	–Statistical Quality Control.....	81	11
c.	95	–Vendor Quality Control.....	75	9
Inventory Reduction				
d.	125	–Raw Material.....	82	11
e.	116	–Work in Process.....	75	18
f.	115	–Finished Goods.....	71	24
New Investments				
g.	127	–Plant and Equipment.....	85	10
h.	111	–Research and Development.....	69	24
i.	78	–Education/Retraining.....	74	21
Manufacturing Reorganization				
j.	98	–New Management Team.....	80	10
k.	33	–New Incentive System.....	70	21
l.	69	–New Labor/Management Relationship.....	78	16
m.	106	–Work Force Reduction.....	90	8
n.	48	–Labor Cost Concessions.....	71	27
o.	68	–Plant Closings.....	85	9
p.	25	–Plant Relocation.....	80	12
q.	69	–Job Automation and Robotics.....	73	16
New Information Systems				
r.	55	–Integration with Customers.....	69	22
s.	35	–Integration with Suppliers.....	74	23
t.	66	–Integration Across Business Functions.....	65	26
u.	87	–Computer-Aided Design (CAD).....	79	9
v.	59	–Computer-Aided Manufacturing (CAM).....	71	19
w.	116	–Production/Inventory Control.....	74	21
x.	73	–Warehousing/Distribution Control.....	80	14
y.	77	–Product Cost Accounting.....	65	27
New Market Strategy				
aa.	118	–Increase Share of Current Market.....	60	32
bb.	71	–New Markets for Current Products.....	63	27
cc.	119	–New Products for Current Markets.....	82	11
dd.	68	–New Products for New Markets.....	72	27
ee.	21	–Backward Integration Toward Suppliers.....	62	29
ff.	33	–Forward Integration Toward Customers.....	64	24
gg.	24	–Lateral Integration with Other Business Units...	71	25
hh.	47	–Narrowing Product/Market Focus.....	81	13

2. The list from Table 1 is repeated below. Check any *areas which will be emphasized* by the business unit *to improve performance* in the next three years; then check those areas that you consider most important.

	Will be Emphasized (Number of Respondents)		Percent of Those Who Will Most Important
Quality Improvement			
a.	114	–Quality Circles/Worker Involvement.....	80
b.	102	–Statistical Quality Control.....	58
c.	108	–Vendor Quality Control.....	57
Inventory Reduction			
d.	105	–Raw Material.....	49
e.	118	–Work in Process.....	61
f.	112	–Finished Goods.....	59
New Investments			
g.	103	–Plant and Equipment.....	65
h.	109	–Research and Development.....	73
i.	94	–Education/Retraining.....	67
Manufacturing Reorganization			
j.	35	–New Management Team.....	63
k.	32	–New Incentive System.....	59
l.	52	–New Labor/Management Relationship.....	85
m.	74	–Work Force Reduction.....	57
n.	30	–Labor Cost Concessions.....	57
o.	18	–Plant Closings.....	50
p.	20	–Plant Relocation.....	50
q.	87	–Job Automation and Robotics.....	71
New Information Systems			
r.	76	–Integration with Customers.....	58
s.	53	–Integration with Suppliers.....	60
t.	68	–Integration Across Business Functions.....	62
u.	77	–Computer-Aided Design (CAD).....	48
v.	71	–Computer-Aided Manufacturing (CAM).....	66
w.	103	–Production/Inventory Control.....	60
x.	56	–Warehousing/Distribution Control.....	46
y.	80	–Product Cost Accounting.....	50
New Market Strategy			
aa.	114	–Increase Share of Current Market.....	78
bb.	77	–New Markets for Current Products.....	65
cc.	122	–New Products for Current Markets.....	79
dd.	83	–New Products for New Markets.....	70
ee.	16	–Backward Integration Toward Suppliers.....	63
ff.	36	–Forward Integration Toward Customers.....	69
gg.	28	–Lateral Integration with Other Business Units...	61
hh.	27	–Narrowing Product/Market Focus.....	63

SECTION 3
STRATEGIC PLANNING PROCESS

1. *How frequently* is a long-range strategic plan created for this business unit? (If you check "Never," skip to question 6.)

(74.4%) Annual (14.2%) No fixed schedule, done as needed
 (2.8%) Every other year (6.3%) Never
 (2.3%) Other: _____

2. What is the *planning horizon* for the strategic plan?

4.57 years

3. What is the approximate *length* of the final strategic planning document?

(15.9%) less than 10 pages (27.4%) 50-100 pages
 (47.0%) 10 to 50 pages (9.8%) more than 100 pages

4. *How involved* is each of the following groups in the preparation of the strategic plan?

	Average Rating	Percent by Rating					
		No Real Involvement					Deeply Involved
		1	2	3	4	5	
a. Executive Management.....	4.57	0.6	1.8	6.7	21.8	69.1	
b. Functional Managers.....	4.28	0.6	3.1	13.0	34.2	49.1	
c. Planning Staff.....	4.29	5.6	2.8	10.5	19.6	61.5	
d. Financial Staff.....	4.12	3.1	8.7	14.3	21.1	52.8	

5. How would you characterize the *attitude* of each of the following groups toward the current strategic planning process?

	Average Rating	Percent by Rating				
		Strong Opposition			Neutral	Strong Support
		1	2	3	4	5
a. Executive Management.....	4.66	0.0	0.6	4.8	22.8	71.9
b. Functional Managers.....	4.07	0.0	1.8	23.0	41.8	33.3
c. Planning Staff.....	4.60	0.0	0.7	7.1	23.6	68.6
d. Financial Staff.....	4.20	0.0	3.1	18.6	33.5	44.7

6. How well do the following groups *understand* the goals, strategy and overall business plans in the business unit?

	Average Rating	Percent by Rating				
		No Understanding			Clear Understanding	
		1	2	3	4	5
a. Executive Management.....	4.63	0.0	1.7	1.7	28.8	67.8
b. Functional Managers.....	4.06	0.6	1.1	22.2	43.8	32.4
c. Supervisors.....	3.00	3.5	23.4	48.0	19.9	5.3
d. Hourly Workers.....	2.10	26.9	45.0	21.6	4.1	2.3

7. Rate the business unit's *strategic planning* in the following dimensions:

	Average Rating	Percent by Rating				
		Little	2	3	4	Great
		1				5
a. Amount of Planning.....	3.64	2.8	9.7	28.4	39.2	19.9
b. Formality of Process.....	3.48	Informal 7.9	13.5	21.3	37.1	Formal 20.2
c. Speed of Process.....	3.07	Slow 4.5	20.9	44.1	24.3	Fast 6.2
d. Leadership Style.....	3.69	Directive 3.4	13.0	20.3	37.3	Participative 26.0
e. Linkage to Operating Plans.....	3.97	Little 1.7	5.1	22.0	37.3	Great 33.9
f. Cost to Company.....	2.38	Low 18.6	41.2	25.4	12.4	High 2.3
g. Value of Process This Year.....	3.56	Low 4.0	11.3	27.7	39.0	High 18.1
h. Value of Repeating Next Year.....	3.84	Low 6.3	4.5	22.7	31.8	High 34.7
i. Adequacy of Process.....	3.58	Need less 0.0	6.2	43.8	35.4	Need more 14.6
j. Quality of Company Data Used.....	3.67	Inaccurate 2.3	8.5	26.7	44.9	Accurate 17.6
k. Quality of External Data Used.....	3.14	Inaccurate 0.6	20.7	45.4	30.5	Accurate 2.9
l. Quality of the Resulting Plan.....	3.52	Low 1.7	5.7	38.6	46.6	High 7.4
m. Your Enjoyment of the Process.....	3.85	Dislike 2.3	6.8	22.0	41.2	Enjoy 27.7

8. Rate your *current computing systems* as they support planning in each of the following areas. Then check 3 (or fewer) areas that you would most like to see improved.

	Average Rating	Percent by Rating					Should be Improved	
		Weak						Strong
		1	2	3	4	5		
a. Access to Internal Data.....	3.69	2.4	14.4	28.1	22.2	32.9	25.0	
b. Access to External Data.....	2.48	23.6	28.0	29.2	14.9	4.3	36.1	
c. Forecasting of Internal Data.....	3.09	10.3	21.8	27.9	28.5	11.5	24.4	
d. Forecasting of External Data.....	2.31	28.4	29.0	28.4	11.7	2.5	31.7	
e. Financial Implications of Plans.....	3.68	6.1	10.3	19.4	38.2	26.1	18.9	
f. Support of "What If" Analysis.....	2.78	16.9	24.7	30.7	19.3	8.4	46.1	
g. Simulation of Uncertainty in Plans..	2.31	25.5	33.9	29.7	6.1	4.8	31.1	
h. Quantitative Optimization of Plans..	2.49	25.3	25.9	28.4	15.4	4.9	24.4	
i. Graphical Presentation of Plans.....	2.93	16.0	23.5	24.7	23.5	12.3	12.8	
j. Performance Monitoring.....	3.23	10.1	18.3	25.4	30.8	15.4	30.6	

9. If you could *improve the quality of information* available to the business unit *for planning*, in which 3 (or fewer) areas would it be?

Percent Checked		Percent Checked	
a. 28.9	Industry	i. 19.4	Sales
b. 67.8	Competitor	j. 13.9	Product Quality
c. 2.2	Supplier	k. 13.9	Financial
d. 17.2	Current Customer	l. 5.0	Accounting
e. 42.2	Potential Customer	m. 20.6	Economic
f. 12.2	Production	n. 22.2	Technological
g. 5.6	Inventory	o. 6.1	Legal/Regulatory
h. 5.6	Distribution	p. 2.8	Social/National

SECTION 4

YOUR VIEW OF ATTITUDES TOWARD STRATEGIC PLANNING AND CHANGE

1. Your Title (function): _____

We would like your answer to five questions that were previously asked of 50 manufacturing executives during in-depth interviews. The variety of answers we received from them are shown.

First, draw a line through any response which you consider wrong or irrelevant. Then check 3 (or fewer) responses that you would offer to answer each question.

2. Why do people *avoid strategic planning* within the business unit?

	No. Who Checked	No. Who Deleted
a. "The result may change their jobs"	31	52
b. "Planning is hard and unfamiliar work"	147	10
c. "Planning is not needed when times are good"	20	64
d. "Resources are not available when times are tough"	18	42
e. "Looking in the mirror is not pleasant for them"	26	54
f. "It is hard to see the future clearly"	100	19
g. "Creating change is dangerous"	20	56
h. "Planning does not move the product"	50	44
i. "The sun will return tomorrow"	5	92

3. What are the most *common criticisms* of the strategic planning process in this business unit?

	No. Who Checked	No. Who Deleted
a. "The plan has more form than content"	72	18
b. "There is little connection to operating plans"	44	24
c. "There is little connection to capital appropriation"	13	27
d. "It is one year of plan and five years of numbers"	86	18
e. "The precision of the numbers is confused with their accuracy"	50	19
f. "The plan is used as a whip"	16	55
g. "Planning is required, at times when it is not needed"	24	35
h. "After all the work, the plan is not used"	79	15

4. What do you feel are the major goals or *benefits sought* from the strategic planning process by the CEO or President of this company?

	No. Who Checked	No. Who Deleted
a. "Forum to provide direction to managers"	98	3
b. "Opportunity to evaluate and coach managers"	24	18
c. "Forces managers to take a market focus"	65	9
d. "Forces managers to look up from daily detail"	67	8
e. "Forces managers to communicate with each other"	33	12
f. "Documents 'common' assumptions"	21	14
g. "Disrupts habit and breaks mindblocks"	17	24
h. "Forges commitment to shared goals"	109	0
i. "Plan becomes our contract for action"	65	7
j. "Fair means for allocating scarce resources"	42	15
k. "Allows CEO to disengage from tactics"	9	37
l. "Window dressing to justify investments"	5	71

5. What do you feel are the *keys to success* in accomplishing strategic change?

	No. Who Checked	No. Who Deleted
a. "Realistic view of the market"	90	2
b. "Clear mission, objectives and goals"	147	1
c. "Survival as a central issue"	12	33
d. "Confident, talented managers"	66	6
e. "Commitment through participation"	111	1
f. "Incorporate uncertainties into the planning process"	22	10
g. "Build contingencies into plans"	28	9
h. "Plan the implementation of change in detail"	23	22
i. "Use the plan conspicuously"	23	23
j. "Luck dominates every other factor"	3	76

6. What *advice* would you offer to the CEO of a company who is attempting to accomplish strategic change?

	No. Who Checked	No. Who Deleted
a. "Establish a vision—put a clear stake in the ground"	119	6
b. "Tell them, ask them, listen, and tell them again"	33	22
c. "Focus on substantial change"	32	13
d. "Nurture creativity"	74	3
e. "Forge commitment through participation"	120	4
f. "State goals in operational terms"	59	5
g. "Don't second guess tactical decisions"	13	14
h. "Monitor and reward conspicuously"	41	6
i. "Maintain poise under pressure"	12	26
j. "Don't move the stake in the ground lightly"	24	20

SECTION 5

FACTUAL INFORMATION ABOUT THE BUSINESS UNIT

1. Check the box which best describes *the business unit* for which the questionnaire was completed:

Corporation	Group	Division	Other
62.9	12.4	24.7	0.0

2. Which category best describes the *products/markets* of the business unit:

Capital Goods	Consumer Goods	Industrial Goods
15.2	38.6	46.2

3. The *production process* in this business unit is best characterized as:

One of a Kind	Small Batch	Large Batch	Repetitive Semi-continuous	Continuous Process
3.8	19.4	19.4	28.8	28.8

4. The *market served* by this business is primarily located... (check one):

63.5	Entire United States	3.9	North America
12.4	Regional within U.S.	18.5	Global
1.7	Other: _____		

5. How many business are *competing* with you in the market?

5 or Fewer	6-10	11-20	21-40	More than 40
8.5	26.1	23.9	7.4	34.1

6. What are the approximate *shares of the current market* held by yourself and by your largest competitor?

	Less than 5%	Percent by Rating			More than 30%
	5-10%	10-20%	20-30%	30%	
a. This Business Unit	14.9	18.0	24.8	17.4	24.8
b. Largest Competitor	6.0	12.6	29.1	32.5	19.9

7. To where do you feel a *shift in your market* is likely to occur in the next five years?

48.8	No shift is expected	3.6	Regional within Europe
25.3	Regional with U.S.	19.3	Asia/Far East
3.0	Mexico/South America	0.0	Other: _____

8. What were the *approximate sales* of the business unit in the last fiscal year?

- a. \$1609.9 (U.S. Dollars, millions)
- b. 69.0% (percent of total company sales)

9. What was the *approximate value* for each of the following for the business unit in the last fiscal year?

Profit before Tax	137.0	(\$ millions)
Investment in Equipment	46.3	(\$ millions)
Facilities	34.0	(\$ millions)
R&D	39.1	(\$ millions)
Education/Training	37.1	(\$ millions)
New Systems	8.6	(\$ millions)
Number of Employees	9414	

10. In each area, *what has happened* to this business in the last three years?

	Average Rating	Percent by Rating				
		Substantially Decreased	About the Same		Substantially Increased	
		1	2	3	4	5
a. Sales Volume in Units.....	3.76	3.4	7.3	31.1	26.0	32.2
b. Profitability.....	3.62	11.4	10.2	17.0	27.8	33.5
c. Capacity Utilization.....	3.45	6.8	10.8	32.4	30.1	19.9
d. Production Capacity.....	3.60	2.3	8.0	37.4	32.2	20.1
e. Offshore Production.....	3.52	4.7	3.1	43.4	33.3	15.5
f. Size of Labor Force.....	2.69	10.8	40.3	25.6	15.3	8.0
g. Size of Middle Management...	2.75	9.7	30.1	40.3	15.3	4.5
h. Labor/Mgmt. Cooperation....	3.57	1.1	1.1	46.3	42.9	8.6
i. Capital Investment.....	3.71	2.3	9.6	28.8	33.9	25.4
j. Share of Market.....	3.47	0.6	4.6	57.6	32.0	10.3
k. Number of Competitors.....	3.15	1.7	15.4	56.6	18.9	7.4
l. Total Industry Capacity.....	3.32	3.4	13.6	42.6	28.4	11.9

THANK YOU!

Please return this questionnaire in the enclosed envelope to:

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