

The Role of  
Market Research  
in Customer Service

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INPUT



- 'Information' Gathered Objectively
- Help Plan Strategies for Success in Service
- Annual Trends Europe
- 'Benchmark' User Satisfaction

INPUT

NOTES:

FPRE-KH-2



## Analysis of:

- Computer Markets
- Customer Service Markets
- Vendors' Service Offerings
- Users
  - Services Received
  - Services Needed

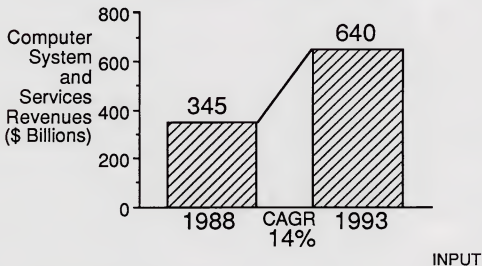
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NOTES:

FPRE-KH-3



## Worldwide Computer Market



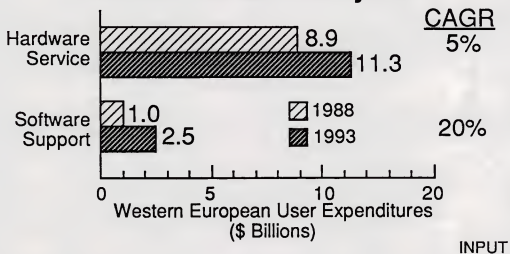
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## Customer Service Market— Service Sector Analysis

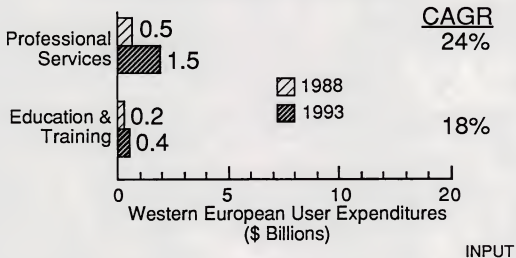


NOTES:

FPRE-KH-5a



## Customer Service Market— Service Sector Analysis



NOTES:

FPRE-KH-5b



## Software Support Satisfaction

0 Satisfaction Index  $\Delta$  SI 0.5

Most Satisfied

- Hotline
- Capacity Tuning
- On-Site Support
- Consultancy/Planning
- Remote Diagnostics
- Problem Database

INPUT

NOTES:

FPRE-KH-6



## Software Support Satisfaction

0.5 Satisfaction Index  $\Delta$  SI 1.0

### Least Satisfied

- Telephone Fix Speed
- Telephone Access
- Software Updates
- Software Installation
- Training

INPUT

NOTES:

FPRE-KH-7





# Software Support Satisfaction

1.0 Satisfaction Index  $\Delta$  SI 1.5

Concern

- Engineer Skills
- Documentation

INPUT

NOTES:

FPRE-KH-8



## Hardware Service Satisfaction

0 Satisfaction Index  $\Delta$  SI 0.5

### Most Satisfied

- Consultancy/Planning
- Training
- Telephone Support
- Service Administration
- Remote Diagnostics
- Out-of-Hours

INPUT

NOTES:

FPRE-KH-9



## Hardware Service Satisfaction

0.5 Satisfaction Index  $\Delta$  SI 1.0

Least Satisfied

- Engineer Skills
- Problem Escalation
- Back-Up Support
- Call Handling
- Documentation

INPUT

NOTES:

FPRE-KH-10



# Hardware Service Satisfaction

1.0 Satisfaction Index  $\Delta$  SI 1.5

Concern

- Spares Availability

INPUT

NOTES:

FPRE-KH-11





## Major Challenges and Issues

- Deterioration in User Satisfaction
  - Software Support
  - System Failure Rates
  - Systems Availability
  - Response/Repair

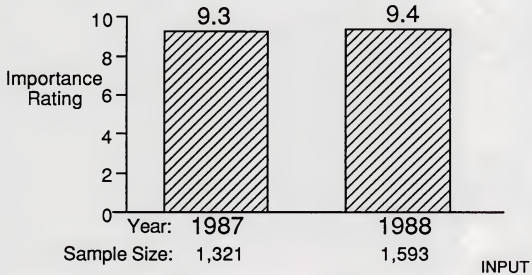
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NOTES:

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## Systems Availability Trends

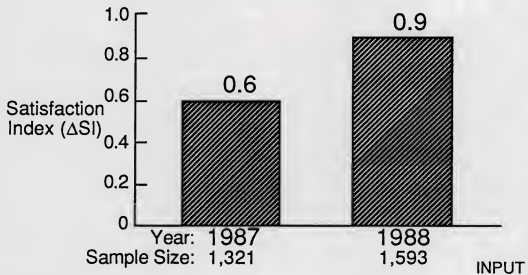


NOTES:

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## Systems Availability Trends

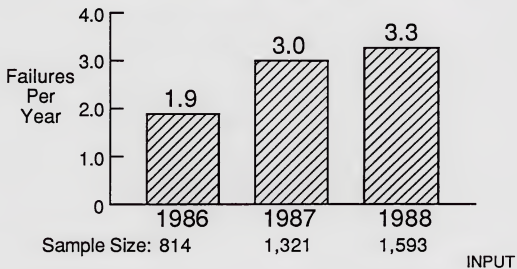


NOTES:

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## System Failure Rate Trends



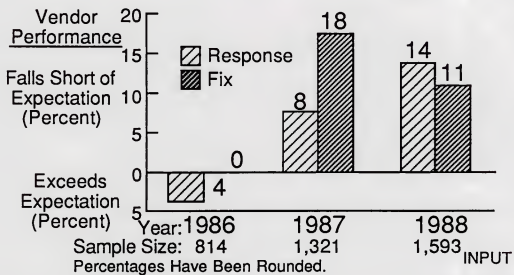
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## Hardware Service Response/Repair Time Trends

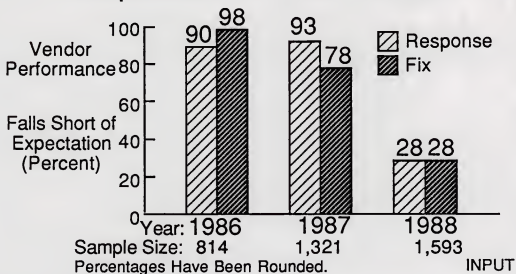


NOTES:

FPRE-KH-15



## Software Support Response/Fix Time Trends



NOTES:

FPRE-KH-16



# Country Comparisons

## Hardware Service Satisfaction

(1.0) Satisfaction Index  $\Delta$  SI 0

Oversatisfied

- Belgium

INPUT

NOTES:

FPRE-KH-17a



## Country Comparisons

### Hardware Service Satisfaction

0 Satisfaction Index  $\Delta$  SI 0.5

Most Satisfied

- Netherlands
- Switzerland

INPUT

NOTES:

FPRE-KH-17b





## Country Comparisons

### Hardware Service Satisfaction

0.5 Satisfaction Index  $\Delta$  SI 1.0

Least Satisfied

- France
- West Germany
- Italy
- Norway
- Sweden
- United Kingdom

INPUT

NOTES:

FPRE-KH-17c



## Country Comparisons

### Hardware Service Satisfaction

1.0 Satisfaction Index  $\Delta$  SI 1.5

Concern

- Spain

INPUT

NOTES:

FPRE-KH-17d



# Country Comparisons

## Software Support Satisfaction

(1.0) Satisfaction Index  $\Delta$  SI 0

Oversatisfied

- Belgium

INPUT

NOTES:

FPRE-KH-18a



## Country Comparisons Software Support Satisfaction

0 Satisfaction Index  $\Delta$  SI 0.5

Most Satisfied

- Netherlands
- Switzerland

INPUT

NOTES:

FPRE-KH-18b





## Country Comparisons

### Software Support Satisfaction

0.5 Satisfaction Index  $\Delta$  SI 1.0

Least Satisfied

- West Germany
- Italy
- Norway
- United Kingdom

INPUT

NOTES:

FPRE-KH-18c



# Country Comparisons

## Software Support Satisfaction

1.0 Satisfaction Index  $\Delta$  SI 1.5

Concern

- France
- Spain
- Sweden

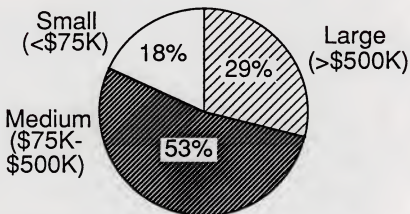
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NOTES:

FPRE-KH-18d



## Sample Distribution by System Size



Sample Size: 1,593

INPUT

NOTES:

FPRE-KH-19



## World Markets: 1988

	\$ Billions				
	U.S.	Europe	Japan	RoW	Total
Computer Hardware	62	38	32	7	139
Hardware Maintenance	14	9	7	1	31
Data Comm. Hardware	16	8	5	2	31

INPUT

NOTES:

FPRE-KH-20





## World Markets: 1988

	\$ Billions				
	U.S.	Europe	Japan	RoW	Total
Data Comm. Maintenance	4	1	1	<1	7
Software	23	9	14	5	51
Computer Services	51	26	7	2	86
Total	170	91	66	18	345

INPUT

NOTES:

FPRE-KH-21ab



## World Markets: 1993

	\$ Billions				
	U.S.	Europe	Japan	RoW	Total
Computer Hardware	101	58	58	14	231
Hardware Maintenance	18	15	8	3	44
Data Comm. Hardware	30	13	9	6	58

INPUT

NOTES:

FPRE-KH-22



## World Markets: 1993

	\$ Billions				Total
	U.S.	Europe	Japan	RoW	
Data Comm. Maintenance	6	2	2	1	11
Software	60	28	37	14	139
Computer Services	99	60	23	5	187
Total	314	176	137	43	670

INPUT

NOTES:

FPRE-KH-23ab



## Service Market Analysis

- Growth Areas
- New Service Offerings
- Competition

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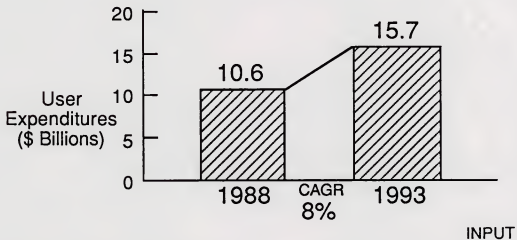
NOTES:

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## Customer Services Market Western Europe, 1988-1993



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FPRE-KH-25



FROM INPUT LTD

2. 1.1989 19:26

P. 1

## INPUT

PICCADILLY HOUSE  
33/37 REGENT STREET, LONDON SW1Y 4NF  
TEL: (01) 493 9335 TELEX: 27113  
FAX: (01) 629 0179

## FAX TRANSMITTAL FORM

DESTINATION: MV

FAX NUMBER: \_\_\_\_\_

ATTENTION: ANDREA JONES

Telephone Number/Location \_\_\_\_\_

NUMBER OF PAGES: 1 of 22CONFIDENTIAL CORRESPONDENCE YES \_\_\_\_\_ NO URGENT YES  NO \_\_\_\_\_

## DESCRIPTION

• ANDREA - I NEED SOME SLIDES FOR A  
CONFERENCE PRESENTATION - ATTACHED

• HARD COPY + SLIDES NEEDED BY FRIDAY 17  
FEB IN LONDON LATEST - AM I IMPROVING IN 'NOTICE' TIME!

• PLEASE FAX ANY OVERLET THU WEEK AS I AM  
AWAY SAT - 14 FEB. I WILL SEND SOME MORE TOMORROW.

• MANY THANKS - IT WAS NICE TO MEET YOU  
IN M.V.



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FROM: KEITH HOCKINGDATE: 2 FEB 89

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① ✓

TITLE      ROLE      OF  
  
MARKET      RESEARCH  
  
IN      CUSTOMER      SERVICE

INPUT



(2) ✓

- o 'INFORMATION' GATHERED  
OBJECTIVELY
- o HELP PLAN STRATEGIES  
FOR SUCCESS IN SERVICE
- o ANNUAL TRENDS EUROPE
- o 'BENCHMARK' USER SATISFACTION



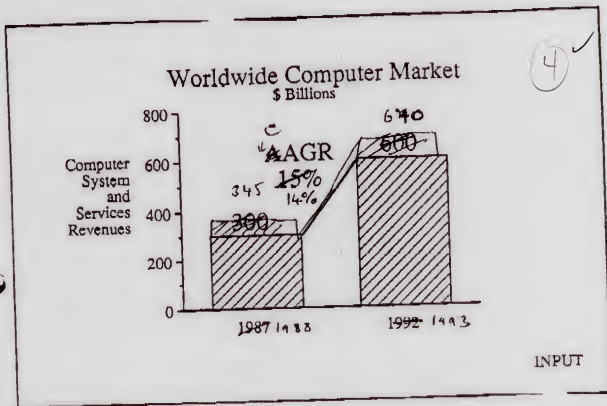


## ANALYSIS OF :-

(3) ✓

- o COMPUTER MARKETS
- o CUSTOMER SERVICE MARKETS
- o VENDORS' SERVICE OFFERINGS
- o USERS - SERVICE RECEIVED
- SERVICES NEEDED





## NOTES:

SLIDE PL - 2a

- Look at overall computer market for hardware and services (end user expenditure).
- Worldwide figures.
- 300 billion dollars 1987 - double in 1992 to 600 billion dollars.
- By 1995 all systems installed will have been replaced or obsolete, service organisations need to be ready to exploit these opportunities.

1. The first part of the document discusses the importance of maintaining accurate records of all transactions. It emphasizes that this is crucial for ensuring the integrity of the financial statements and for providing a clear audit trail.

2. The second part of the document outlines the various methods used to collect and analyze data. It includes a detailed description of the sampling process and the statistical techniques employed to interpret the results.

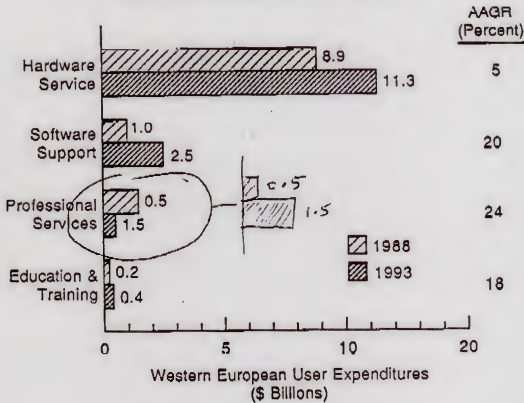
3. The third part of the document provides a comprehensive overview of the findings. It highlights the key areas of concern and offers practical recommendations for improving the overall performance of the organization.

4. The final part of the document concludes with a summary of the main points and a call to action for the management team to implement the suggested changes.

~~CAE8 IV-5~~

5 ✓

### CUSTOMER SERVICE MARKET— SERVICE SECTOR ANALYSIS



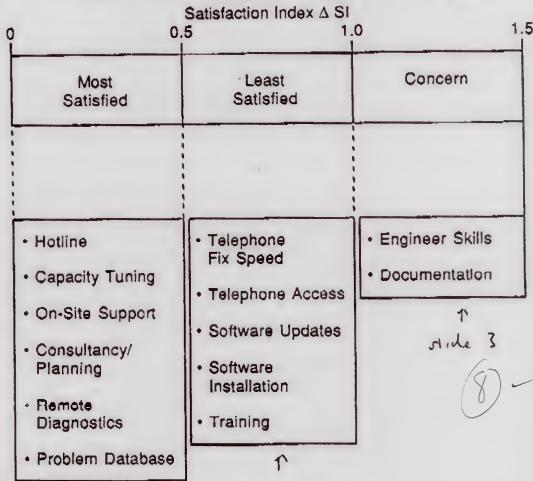
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~~CAE8 III-4~~

**SOFTWARE SUPPORT SATISFACTION**

← *Another  
HEADING*



↑  
slide 1

(6) ✓

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slide 3

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### FIGURE 1

Flowchart illustrating the process of identifying and analyzing the literature.

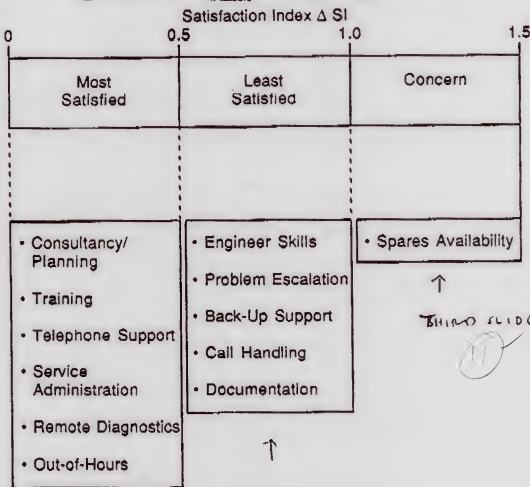




CAE8 III-2

Andrew  
Hudson

## HARDWARE SERVICE SATISFACTION



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THIRD SLIDE  
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(I am assuming you can't make 'one'  
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TABLE I

Year	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025					
Population (millions)	100	101	102	103	104	105	106	107	108	109	110	111	112	113	114	115	116	117	118	119	120	121	122	123	124	125	126	127	128	129	130	131	132	133	134	135	136	137	138	139	140	141	142	143	144	145	146	147	148	149	150
GDP (trillion USD)	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60
Per capita GDP (USD)	100	110	120	130	140	150	160	170	180	190	200	210	220	230	240	250	260	270	280	290	300	310	320	330	340	350	360	370	380	390	400	410	420	430	440	450	460	470	480	490	500	510	520	530	540	550	560	570	580	590	600

Source: World Bank, World Development Indicators (WDI) database.

~~CAE8 III-5~~

### MAJOR CHALLENGES AND ISSUES

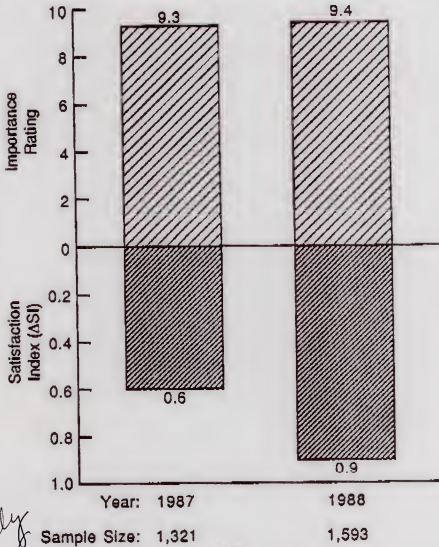
- Deterioration in User Satisfaction
  - Software Support
  - System Failure Rates
  - Systems Availability
  - Response/Repair
- Hardware Service
  - Engineer Skills
  - Spares Availability
- Software Support
  - Engineer Skills
  - Documentation

(12) ✓



~~CAE8 III-6~~

**SYSTEMS AVAILABILITY TRENDS**



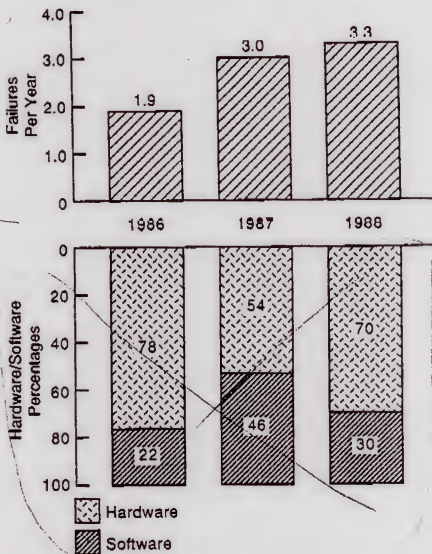
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13 ✓



~~CAE8 III-7~~

## SYSTEM FAILURE RATE TRENDS



Sample Sizes: 1988 = 1,593  
 1987 = 1,321  
 1986 = 814

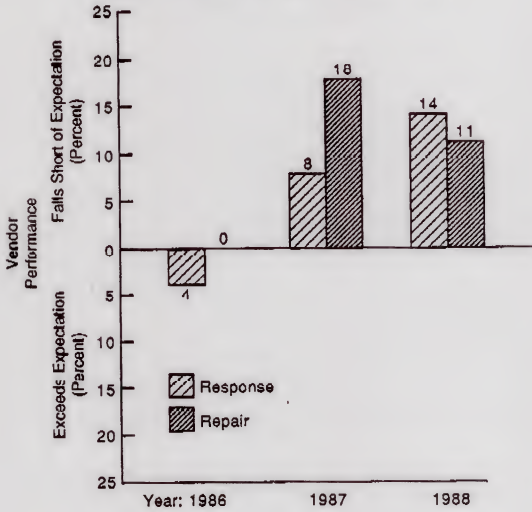
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~~CAE8 III-8~~

### HARDWARE SERVICE RESPONSE/REPAIR TIME TRENDS



Sample Size: 814                      1,321                      1,593

Percentages Have Been Rounded.

*on hc  
 only*

15 ✓

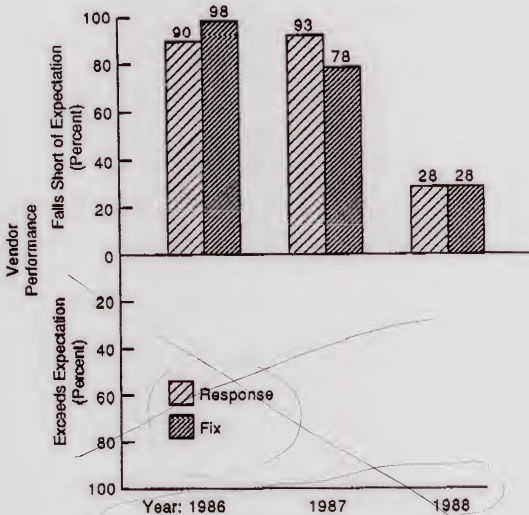
### THE HISTORY OF THE

The history of the world is a vast and complex subject, encompassing the lives and actions of countless individuals and the events that have shaped our planet. From the dawn of civilization to the present day, the human story is one of constant change and evolution. The early years of our species are marked by a struggle for survival, as our ancestors sought to adapt to their environments and overcome the challenges of a harsh world. Over time, however, we have developed the capacity for reason and self-awareness, which has allowed us to build societies, create art, and explore the frontiers of knowledge. The history of the world is not just a record of events, but a testament to the resilience and ingenuity of the human spirit. It is a story that continues to unfold, as we navigate the challenges of the modern world and strive for a better future for all.

THE HISTORY OF THE

~~CAE8-III-9~~

### SOFTWARE SUPPORT RESPONSE/FIX TIME TRENDS



Sample Size: 814

1,321

1,593

Percentages Have Been Rounded.

*hc only*

*(16) ✓*

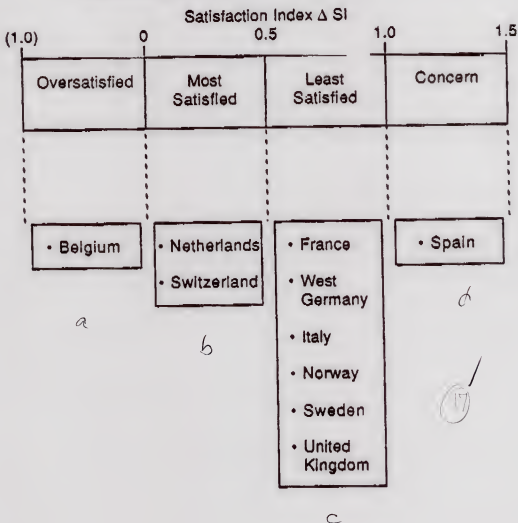
Table 1. Summary of the data used in the analysis.

Variable	Mean	Standard Deviation
Age	35.2	12.5
Gender	0.48	0.50
Education	12.5	2.1
Income	45000	15000
Health	0.75	0.25
Marital Status	0.65	0.48
Employment	0.85	0.35
Home Ownership	0.70	0.45
Life Satisfaction	4.2	1.5

The data were analyzed using a series of regression models. The first model was a simple linear regression with life satisfaction as the dependent variable and age as the independent variable. The second model added gender to the regression. The third model added education, income, and health. The fourth model added marital status and employment. The fifth model added home ownership. The final model included all the variables listed in Table 1.

The results of the regression analysis are shown in Table 2. The first column shows the coefficient estimate for each variable, and the second column shows the standard error. The third column shows the t-statistic, and the fourth column shows the p-value. The fifth column shows the partial correlation coefficient. The sixth column shows the change in the adjusted R-squared value when the variable is added to the model.

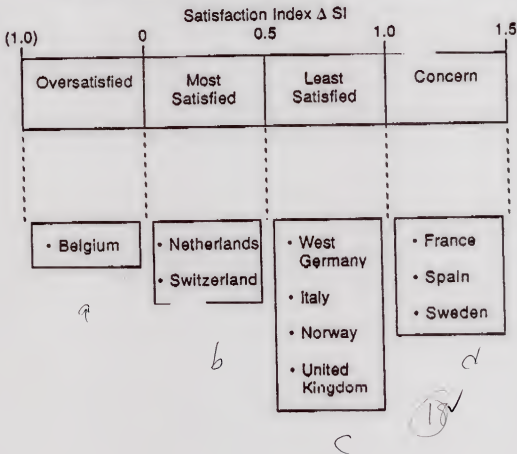
## CAE8 III-11

COUNTRY COMPARISONS  
HARDWARE SERVICE SATISFACTION

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~~CAE8 III.12~~

## COUNTRY COMPARISONS SOFTWARE SUPPORT SATISFACTION

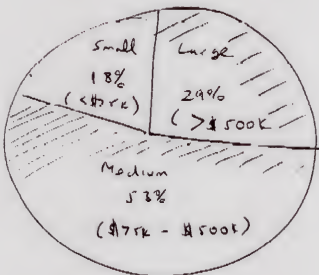


THE UNIVERSITY OF CHICAGO  
DEPARTMENT OF CHEMISTRY  
58 CHEMISTRY BUILDING  
CHICAGO, ILLINOIS 60637

DATE: \_\_\_\_\_  
BY: \_\_\_\_\_  
TITLE: \_\_\_\_\_



Sample Distribution by  
System size



*AC only*

Sample size 1593

19



8

## World Markets: 1987

\$ Billions

	<u>US</u>	<u>EUROPE</u>	<u>JAPAN</u>	<u>ROW</u>	<u>TOTAL</u>
Computer Hardware	54 62	33 38	28 32	6 7	121 139
HW Maintenance	12 14	8 9	6 7	1	27 30
Data Comm. Hardware	14 16	7 8	4 5	2	27 31

INPUT

SLIDES PL - 3 and 3a

- Estimated world markets split by U.S., Japan, Europe, rest of the world in 1992. \*

THE UNIVERSITY OF CHICAGO  
DEPARTMENT OF CHEMISTRY  
5408 S. UNIVERSITY AVENUE  
CHICAGO, ILLINOIS 60637  
TEL: 773-936-3700  
FAX: 773-936-3701  
WWW: WWW.CHEM.UCHICAGO.EDU

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8

## World Markets: 1987

	US	EUROPE	JAPAN	ROW	TOTAL
Data Comm.					
Maintenance	34	1	1	<1	67
Software	2023	89	12,14	45	4451
Computer Services	4451	2326	67	2	7586
	—	—	—	—	—
TOTAL	117 170	8091 26	57 66	16 18	300345

INPUT

### NOTES:

- Computer services- Network services ) 85
- Consultancy ) 205
- Custom software ) 505
- Turnkey systems )
- Hardware is 49% of world market.
- Europe 26% (\$80 billion) of world market.
- Overall customer hardware service (\$33 billion) 11%.
- Software business \$44 billion.

Year	1950	1951	1952	1953	1954	1955	1956	1957	1958	1959	1960
Population	100	105	110	115	120	125	130	135	140	145	150
Area	100	100	100	100	100	100	100	100	100	100	100
Production	100	100	100	100	100	100	100	100	100	100	100
Consumption	100	100	100	100	100	100	100	100	100	100	100
Exports	100	100	100	100	100	100	100	100	100	100	100
Imports	100	100	100	100	100	100	100	100	100	100	100

The following table shows the results of the survey conducted in the year 1960. The data is presented in a tabular format, with columns representing different categories and rows representing different sub-categories. The values are normalized to a base of 100 for the year 1950.

Category	Sub-category	Value (1960)
Population	Total	150
	Male	75
	Female	75
	Children	30
Area	Total	100
	Urban	40
	Rural	60
	Water	10
Production	Total	100
	Food	60
	Manufacturing	30
	Services	10
Consumption	Total	100
	Food	60
	Manufacturing	30
	Services	10
Exports	Total	100
	Food	60
	Manufacturing	30
	Services	10
Imports	Total	100
	Food	60
	Manufacturing	30
	Services	10

The data indicates a steady increase in population and production over the period from 1950 to 1960. The area and consumption levels remained relatively stable, while exports and imports showed significant growth.

3

## World Markets: 1992

\$ Billions

	<u>US</u>	<u>EUROPE</u>	<u>JAPAN</u>	<u>ROW</u>	<u>TOTAL</u>
Computer Hardware	88 101	50 58	50 58	12 14	200 231
Maintenance	16 18	13 15	7 8	2 3	38 44
Data Comm. Hardware	26 30	14 13	8 9	5 6	50 58

INPUT

22

## NOTES:

15% growth in the areas MACH  
 different growth in the areas

Date	Description	Debit	Credit	Balance
1890				
Jan 1	Balance			
Jan 15	...			
Jan 30	...			
Feb 1	...			
Feb 15	...			
Feb 28	...			
Mar 1	...			
Mar 15	...			
Mar 31	...			
Apr 1	...			
Apr 15	...			
Apr 30	...			
May 1	...			
May 15	...			
May 31	...			
Jun 1	...			
Jun 15	...			
Jun 30	...			
Jul 1	...			
Jul 15	...			
Jul 31	...			
Aug 1	...			
Aug 15	...			
Aug 31	...			
Sep 1	...			
Sep 15	...			
Sep 30	...			
Oct 1	...			
Oct 15	...			
Oct 31	...			
Nov 1	...			
Nov 15	...			
Nov 30	...			
Dec 1	...			
Dec 15	...			
Dec 31	...			



3

## World Markets: 1992

\$ Billions

	<u>US</u>	<u>EUROPE</u>	<u>JAPAN</u>	<u>ROW</u>	<u>TOTAL</u>
Data Comm. Maintenance	56	2	2	1	10 11
Software	52 60	24 28	32 37	12 14	120 139
Computer Services	86 99	52 60	20 23	4 5	162 187
	—	—	—	—	—
TOTAL	273 314	152 176	119 137	36 43	600 670
					INPUT

NOTES:

SLIDES PL - 4 and 4a

- Overall growth per annum forecast at 15%.
- Note decreased percentage of hardware in 1992 from 50% in 1987 to 42% in 1992.
- Increased percentage taken by software and computer services underlines the need for vendors to be involved in all aspects of service.
- Hardware vendors positioning themselves as 'solution' companies.

*include in rel. with 1/1/6*

CSPE PL-4a

THE UNIVERSITY OF CHICAGO  
DEPARTMENT OF CHEMISTRY  
5800 S. UNIVERSITY AVENUE  
CHICAGO, ILLINOIS 60637

RECEIVED  
DATE: \_\_\_\_\_  
BY: \_\_\_\_\_  
TITLE: \_\_\_\_\_

FROM: \_\_\_\_\_  
TO: \_\_\_\_\_  
ADDRESS: \_\_\_\_\_  
CITY: \_\_\_\_\_ STATE: \_\_\_\_\_ ZIP: \_\_\_\_\_

TELEPHONE: \_\_\_\_\_  
FACSIMILE: \_\_\_\_\_  
ELECTRONIC MAIL: \_\_\_\_\_

REMARKS: \_\_\_\_\_  
\_\_\_\_\_

## SERVICE MARKET ANALYSIS

- o GROWTH AREAS
- o NEW SERVICE OFFERINGS
- o COMPETITION

(24)



~~CAEB IV-4~~**CUSTOMER SERVICES MARKET  
WESTERN EUROPE, 1988-1993**