International EDI Services and Software Markets

Victor S. Wheatman
INPUT

Tokyo—September 12, 1989

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VAN (U.S.)

- Communications Related "Value Added":
  - Protocol, Speed Conversions
  - Buffering, Store & Forward
- A Link to Applications, Services, Data Bases, Other Companies

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EQAD-5

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Remote Computer Service (Service Bureau)

- Data Entry, Processing
- May Use Tapes, Diskettes
- VANs Communicate to RCS

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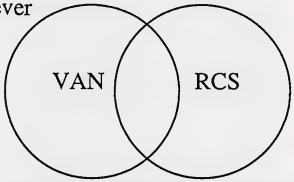
VAN & RCS

However



The Difference is the Network

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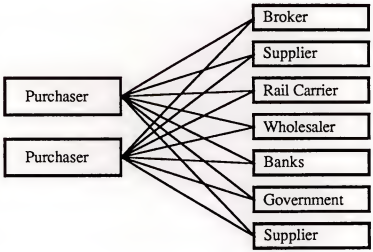
EDI Links Can Get Complicated



INPUT

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USC1-VW-4

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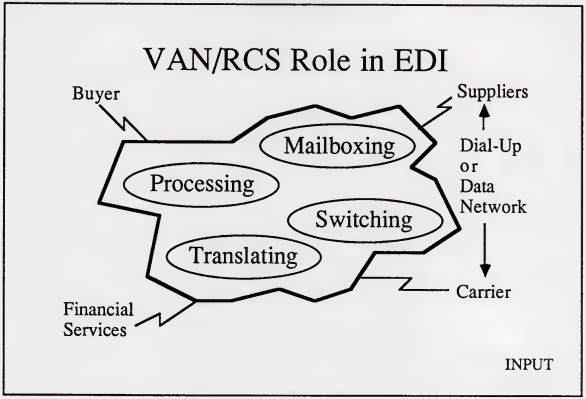

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Electronic Data Interchange

The Application-to-Application Exchange
of Intercompany Business Data
in Standard Formats

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ECON-VW

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Why Not FAX?

- FAX Requires/Creates Hardcopy
- FAX is NOT Machine Readable
- FAX is a Direct (Long Distance) Connection
- FAX Takes Minutes to Transmit
- FAX IS NOT EDI!!!

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Interchange Alternatives

- Tape/Diskette Exchange
  - Cost
  - Security
  - Speed

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Interchange Alternatives

- Direct Point-to-Point
  - Cost/Volume Justification
  - Network Management Issues
    - Scheduling
    - Contention
    - Equipment

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Interchange Alternatives

- Third Party Network
  - Rapid Start-Up
  - Support Issues
  - Existing Trading Community
  - Value Added Services

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Varieties of EDI

Mainline -	Purchasing Logistics EFT + Data
EMCS/ECS -	Medical Claims
Interface -	Insurance

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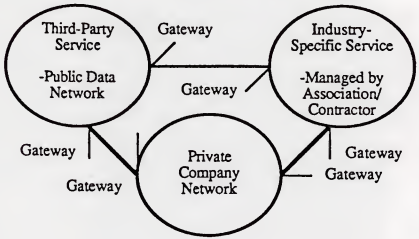
THREE TYPES OF EDI NETWORKS



INPUT

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Major EDI Services

G.E. Information Services	The EDI Express
McDonnell Douglas Electronic Data Interchange Systems Co.	EDI Net
Sterling Software	Ordernet
IBM	Information Exchange
Control Data	Redinet

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GEIS

- Aggressive
- Worldwide Alliances
- EDI/PETROEX
- Design→Express
- UPC→Express
- EPS→Express

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EQAD-20

ETOK-16

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SSW Ordernet

- Grocery
- Hard Goods
- Logistics
- Drugs, Med/Surg
- Service Merchants
- Software

Telenet

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SSW Ordernet

- Australia—ACI
- Japan—Global VAN
- Others—?

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McDonnell Douglas EDI*Net

- Grocery
- Logistics
- Software Certification
- Cross-Industry

Sold to British Telecom

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IBM

- Information Network—SNA
- Intercontinental Services
- Internal Use
- Insurance, Health Care, Electronics, Retail, Etc.
- ExpEDIte Family

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AT&T

- ~~Net 1000~~
- AT&T Mail—EDI "Offering"
- X.400-Based
- Turnkey Systems—RIVET
- Japan Joint Venture—ENS

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EQAD-22

ETOK-18

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Control Data

- Redinet service
- Low cost/flat rate
- Low-cost software

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Sears Communications

- SNA-based
- Services Sears suppliers, others
- Charges sender only

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Harbinger

- Low Cost PC Software
- Interconnect through Harbinger's Network
- Sold to Small Suppliers of Large Companies
- Adding EDI/EFT Services

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Telecom Canada

- Trade route on envoy 100
- Links to Telenet, AT&T
- X.400-based
- No network translation

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Bell Operating Companies

- LADT = Local Access Data Transport
- EDI Applied to Corporate Billing
- As Users

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Bell Operating Companies

- Options:
  - Resale
  - E-Mail application
  - Education and training, enablement
- Preliminary market probes/no EDI services

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Major International/Global EDI Services

- GEIS
- IBM
- British Telecom (Tymnet)
- CSC (service pending)

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Major European EDI Services

- INS (ICL and GEIS)
- Istel
- IBM—joint ventures
- EDS
- PTTs (example: Transpac)
- GSI
- Siemens

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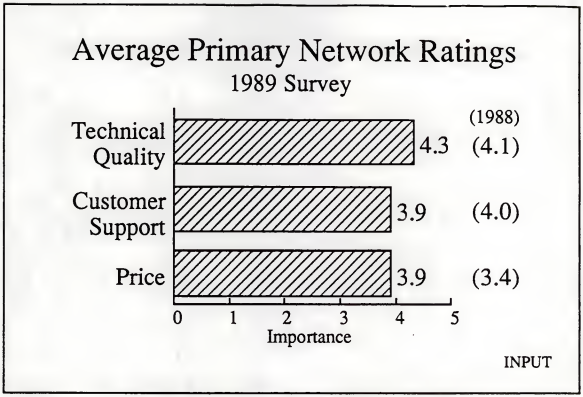

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EDI—The Year(s) Ahead

Services—New Entrants

- ADP
- NDC
- BOCs
- EDS

"Secondary" Players Find Niches

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Full Service Versus Commodity Service

- Full
  - Implementation Assistance
  - Translation, Tracking
  - Reports, Compliance Checking
- Commodity
  - Lower Cost, Few Features
- Analogy: Federal Express Vs. Bulk Mail

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Private EDI Networks

Rockwell	Auto Makers
Caterpillar	Hewlett-Packard
Sears/Penneys	American Hospital Supply
General Foods	Levi-Strauss
Motorola	Others

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USM1-VW-7

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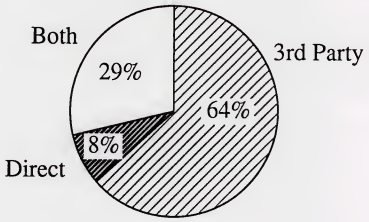
Third Party or Direct EDI?



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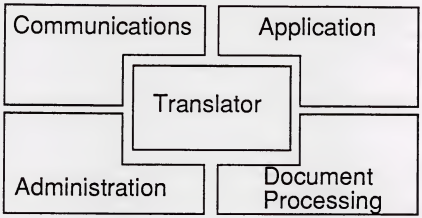
EDI Software Is a Translator and More



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EEDS-4

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SOFTWARE VENDOR CATEGORIES

CATEGORY	COMMENTS
Start-Ups	Entrepreneural, Some Spin-Offs of Consulting Firms
VAN/RCS	Goal is to Increase Network Traffic
Established Application Vendors	Adding EDI Functions to Existing Software

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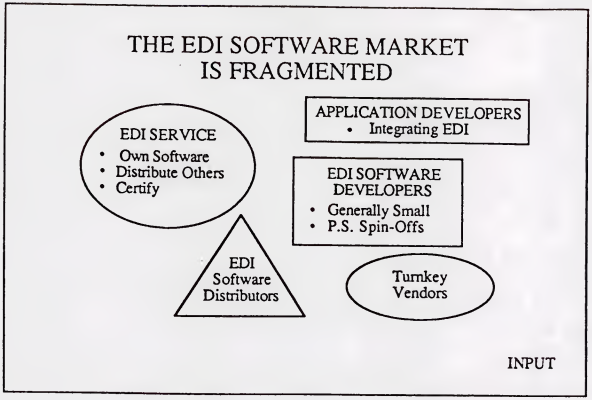

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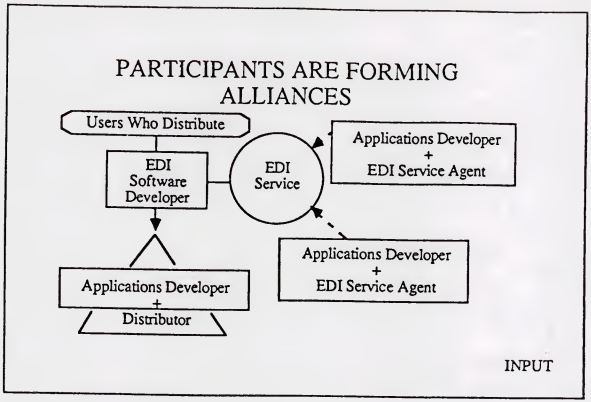

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EDI Software Leaders

- GEIS
- Supply-Tech
- Sterling Software
- Metro-Mark
- ACS Network Systems
- TranSettlements

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Major European Software Firms

- SD-Scicon
- GLI
- Perwill
- Sitpro
- Digital

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Survey Results

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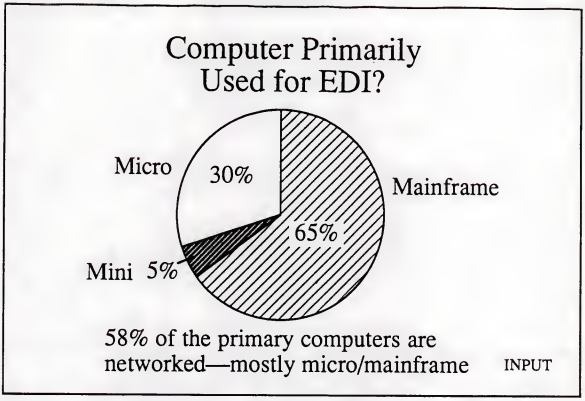

NOTES:

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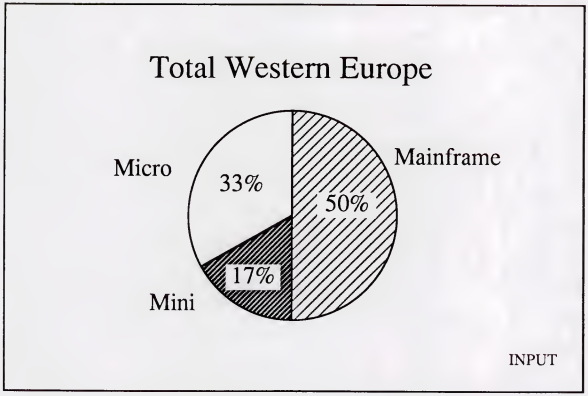

NOTES:

ECOE-TS-23a

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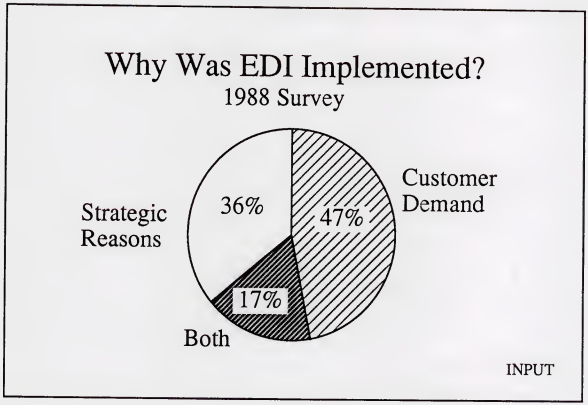

NOTES:

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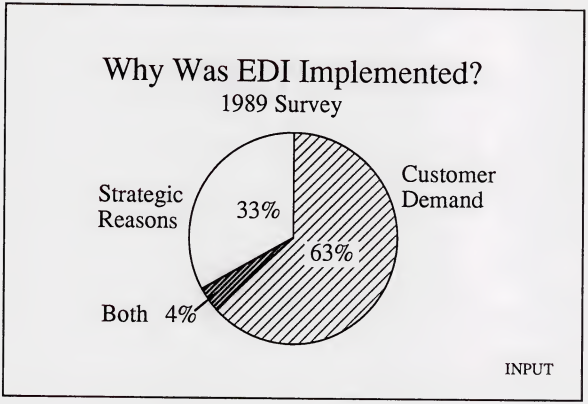

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ECO3-VW-25

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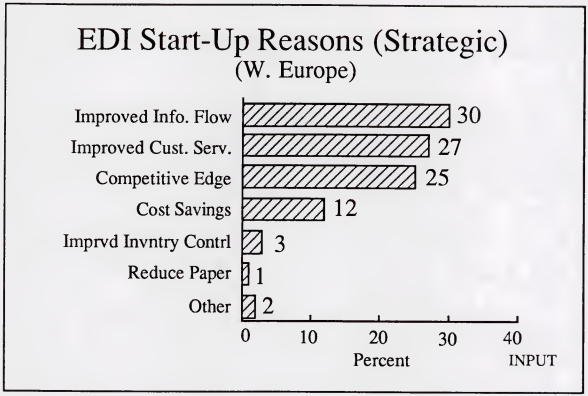

NOTES:

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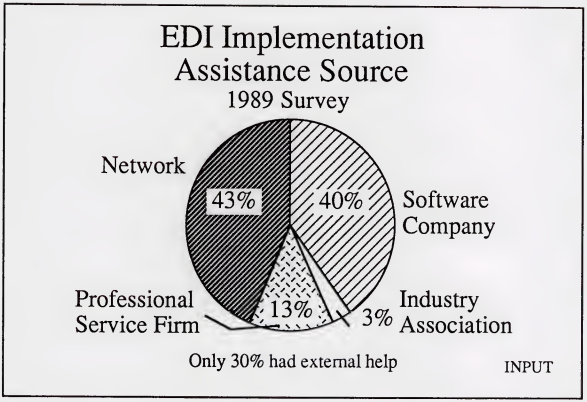

NOTES:

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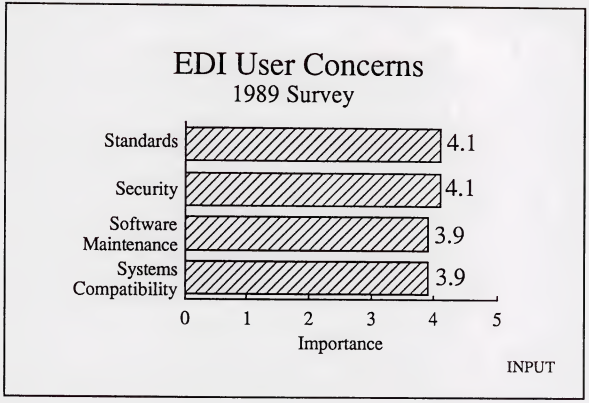

NOTES:

ECO3-VW-27a

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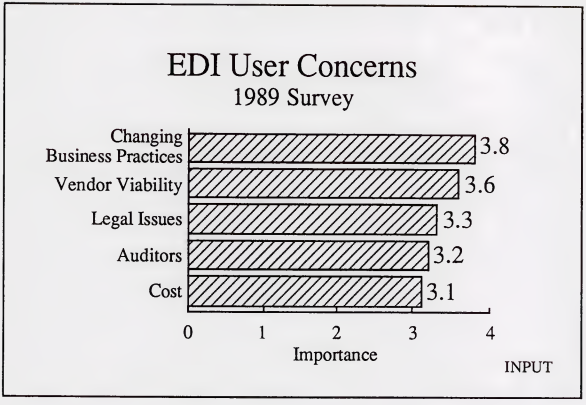

NOTES:

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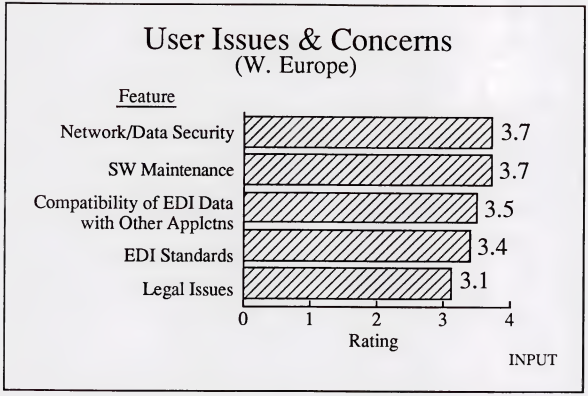

NOTES:

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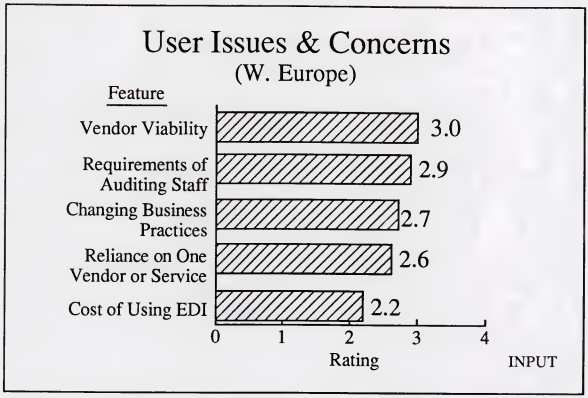

NOTES:

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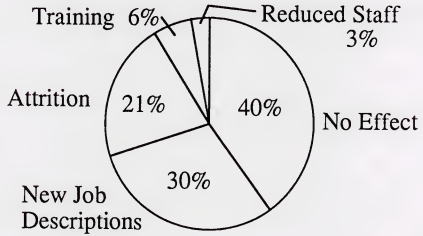
EDI Impact on Human Resources
(Of Those Responding)



INPUT

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EDI Impact on Human Resources

"Our business has grown so rapidly. . . with EDI we've been able to stay up with it without adding staff"

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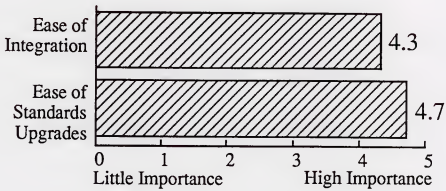
Software Features Importance



80% said it was easy to upgrade their software to new standards

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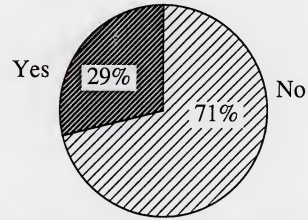
Will You Change Your EDI Software?



Major reason: Upgrading to mainframe

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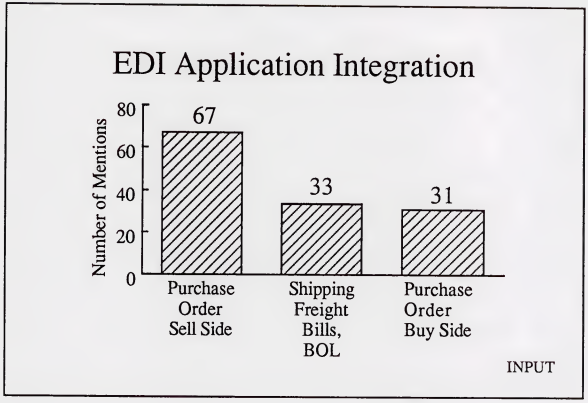

NOTES:

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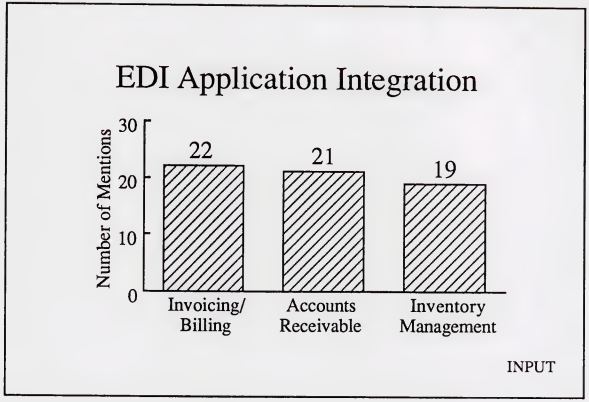

NOTES:

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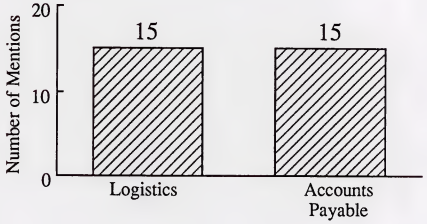
EDI Application Integration



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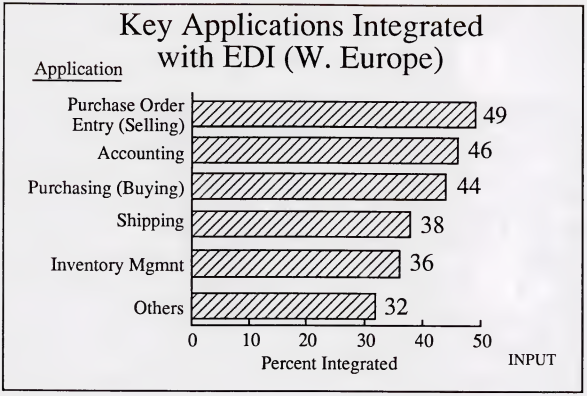

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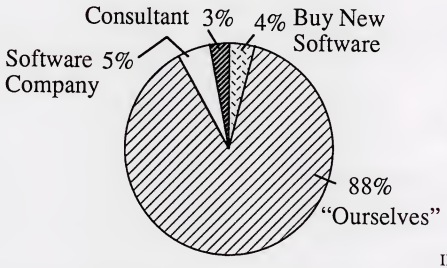
Preferred Method of EDI SW Integration



INPUT

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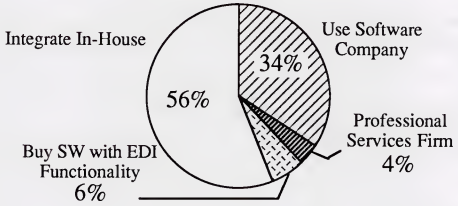
Method of Integrating EDI Software with Other Applications

(W. Europe)



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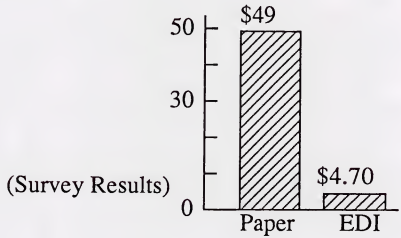
Paper versus Electronic Transactions



INPUT

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EDI Standards

- A Leading Concern
- A Confusing "Alphabet Soup"
- Concerns for Investment/Stability
- Cost of Change? Updates?

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EDI Standards

- Industry Specific
- Proprietary
- Generic
- International

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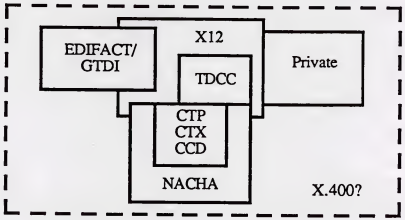
EDI Standards Relationships



INPUT

NOTES:

USM1-VW-14

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EDI Standards

- Industry Specific Examples
  - UCS Grocery
  - CommNet Medical/Surgical
  - Spec2000 Airline Services

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EDI Standards

- Proprietary/Company Specific Examples
  - Senden Sears
  - K-Mart

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ETTI-19

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EDI Standards

- Generic Examples

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X12, TDCC (Transportation)

- BUT X12 Subsets are Industry Specific
  - Examples: VICS, EIDX, EDX

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EDI Standards

- International
  - In-Country (Tradcoms, JCA)
  - International Trade (EDIFACT)

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EDI Standards

- Europe
  - Odette—automobile making
  - Tradacom—retail
  - Dish—trade and transport
  - VDA—West German auto

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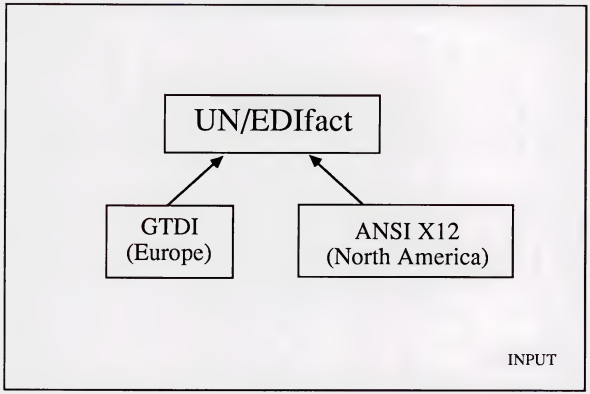

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EDIFACT

- EDI for Administration, Commerce and Trade
- UN Sanctioned/Customs, others Endorse
- Shares Data Dictionary with X12
- Different Syntax

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EDIFACT

- Message Development Slow
- Few Approved Transactions Now
- MultiNationals Using Syntax

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EDI/EFT Formats

CCD+ - Single addenda

CTP - Structured, multiple addenda

CTX - Free form X12 compatible addenda

INPUT

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Standards Interfusion

X12 ⟶ Edifact 400

Pro:	Edifact—'The True Faith'
Con:	X.400 Cycle Is 4 Years Varieties of X.400?
When:	2-10 Years

INPUT

NOTES:

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Standards Interfusion

TDCC ◄—► X12

Pro:	Would Solve Coordination Problems
Con:	Work Load Issues
When:	Now

INPUT

NOTES:

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Standards Interfusion

UCS ◄—► X12

Pro:	Companies Now Using Both
Con:	"Ain't Broke—Why Fix It?"
When:	2-5 Years

INPUT

NOTES:

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Standards Interfusion

Proprietary/
Industry-Specific ——→ X12

Pro: "Go with the Flow"

Con: Ease of Change

When: Now

INPUT

NOTES:

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Standards Interfusion

X12 ⟷ Insurance (IIR/Accord)

Pro: Useful in Mortgage Banking, Transportation, Others?

Con: Coordination Issues

When: 2 Years (Real Estate)

INPUT

NOTES:

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EDI Standards Recommendations

- Use X12 Current Version
- Support Past Version(s)
- Work with Software Company for Updates
- Monitor EDIFACT for International Use
- Participate in Standards Setting

INPUT

Notes:

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EDI CASE STUDY

LEVI-STRAUSS

INPUT

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Levi-Strauss

- 17,000 Retailers—200,000 Stores
- Retail Electronic Services—
  a Marketing Group
- Also Responsible for Supplier EDI

INPUT

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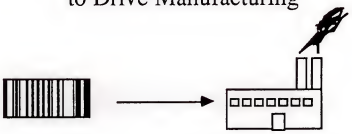
Levi-Strauss

Key Concept:

Capture POS Data
to Drive Manufacturing



INPUT

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Levi-Strauss

Retail Services:

- Sell Through Analysis and Reporting System (STARS)
- Model Stock Management
- Retailer EDI (REDI)
- Purchase Order Reconciliation

INPUT

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Levi-Strauss

Benefits:

- Improved Turns
- Fewer Stock Outs
- Enhanced Retailer Relations

INPUT

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EDI CASE STUDY

FIRST NATIONAL BANK OF CHICAGO

INPUT

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First Chicago

President's Mandate:

"We Will Do EDI"

- Purchasing
- Potential Service

INPUT

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First Chicago

1985: No Supplier Was Ready

So: Loaned Software
Underwrote Costs
Free Training & Installation

INPUT

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First Chicago

Cost Benefit Analysis (1985):

Would Cost More—Not Less
- Dual Systems
- But Costs have Moderated

INPUT

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First Chicago

Implementation

- 65 Staff on Project
- "Bilingual" Users' Guide
- 25–Point Software and Network Evaluation

INPUT

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First Chicago

Transactions

	Electronic	Paper
1986	1,200	1 million
1987	4,800	
1988	20,000	50,000

INPUT

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