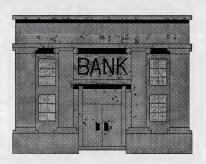
Vertical Markets Banking and Finance

R. Dennis Wayson
INPUT Consultant and
President of RDW Associates



Banking & Finance Vertical Market Breakout





Session Overview

Industry Trends and Markets Dennis Wayson INPUT

A User Perspective Richard Van Dyke VP - Bank of America A Vendor's View
John Skerritt
Managing Partner - Andersen
Consulting

Banking & Finance Industry Trends & IS Markets



Overview

- Business Trends
- Industry Driving Forces
- Information Systems Technology
- Information Services Markets
- Competitive Environment
- Conclusions



Business Trends

- Modest economic recovery
- Rolling real estate recession
- Waning junk bond debt
- Restructuring of third world debt
- · Global competition in banking
- The "virtual corporation"

Industry Driving Forces

- Industry demographics consolidation
- Growing profitability
- Liberalization of product/service possibilities
- Securitization
- Growing competition Nonbank financial services firms

Consolidation - Asset Concentration

Commercial Bank Offices (000's)



- Growing ratio of branches to headquarters
- Growing concentration of assets



"In 1993 the top 300 institutions held 65% of all deposits."

Growing Profitability

- · Lower interest rates
- Gradual économic upturn



Reduced corporate and bank borrowing costs



- Bankruptcies averted
- · Bank failures reduced
- · FDIC pool grows rapidly
- RTC portfolio grows in value



- Earnings increase
- Capital grows

Competition - Threats & Opportunities



Competition Provides Threats

- Non-traditional funding sources
- Alternative deposit agencies
- Credit card competitors

Deregulation Presents Opportunities

- Insurance
- Brokerage
- Mutual Funds





Information Systems

- Global Information Systems Issues
- Impact of New Technologies
- Internal Information Systems Strategies

Global Information Systems Issues

- Reengineering
- Outsourcing
- · Data center consolidation
- Downsizing
- Open systems/networking

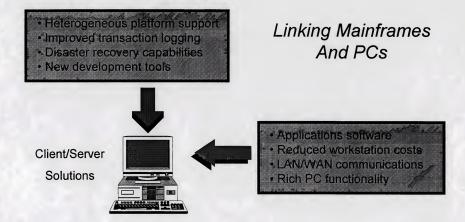


Key Technologies - Banking & Finance

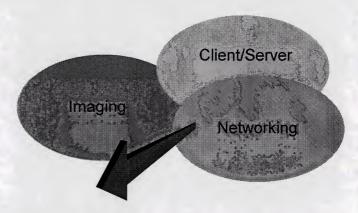
- Relational DBMSs
- Imaging
- Expert Systems
- UNIX

- Workstations
- Tools
- C/S Architecture

Key Technologies - Relational DBMSs

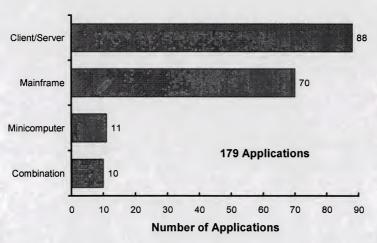


Key Technologies - Imaging



Distributed "File Folder" Imaging Applications

Banking & Finance Target Platforms - Planned Applications



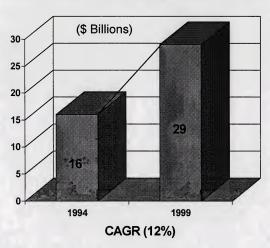
Internal Information Systems Strategies

- Cope with budgets and cost controls
- Evaluate outsourcing alternatives
- Integrate merged bank systems
- Upgrade disaster recovery
- Implement RDBMSs
- Support relationship banking
- Explore imaging
- Research other information technologies

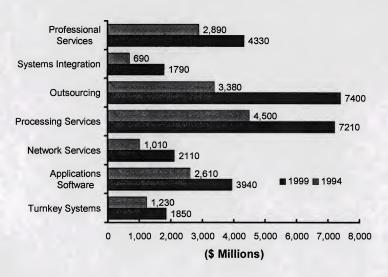
Information Services Markets Banking and Finance

- Total IS Spending
- Expenditures by Product/Service Market
- Driving Forces for Growth

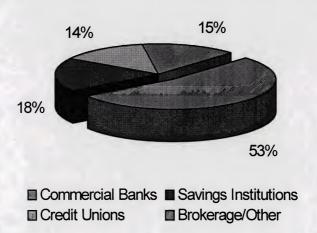
Banking & Finance Growth in IS Expenditures



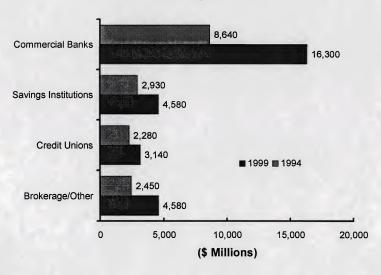
Banking & Finance User Expenditures by Product/Service Market



Financial Services Industry Segments Proportion of IS Expenditures -1994



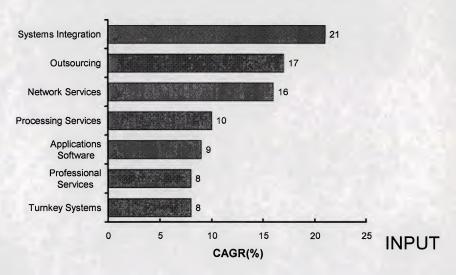
Banking & Finance Industry Segment Markets



Commercial Banks Dominate

- Highest CAGR 14%
- 53% of total expenditures 1994
- 57% of total expenditures 1999
- Coupled with S&L's equal 71% of market

Banking & Finance Growth Rates by Product/Service Market



Driving Forces For Growth by Product/Service Market - Banking & Finance

P/S Market	Key Forces for Changes	CAGR*	
Systems Integration	Pent-up demand, consolidations & mergers, C/S	(%) 21	0 0
Outsourcing	Low profitability - regulatory reserve requirements for higher capital ratios	17	① ①
Network Services	Credit card volumes, growing ATM usage	16	Û
Processing Services	Economies of scale for transaction pricing, but some dampening due to mergers/consolidations	10	Û

^{*} Arrows indicate increase/decrease over 1993 forecasted CAGR

Driving Forces For Growth by Product/Service Market - Banking & Finance

P/S Market	Key Forces for Changes		CAGR*	
		(%)	00	
Applications Software	Consolidations reduce market, but growth in PC software dampens potential negative effects	9	Û	
Professional Services	Cost control reduces traditional strong demand for contract professional services & consultants	8	①①	
Turnkey Systems	Both minicomputer and emerging PC based systems offer alternatives to processing services	8	Û	

^{*} Arrows indicate increase/decrease over 1993 forecasted CAGR

Recap of Market Influences - Banking & Finance

Industry Issues

- Cost Control
- Overcapacity & Mergers
- Gradual Economic Recovery
- Non-Bank Institutions



Increasing Growth

- Systems Integration
- Outsourcing
- Network Services
- Processing Services



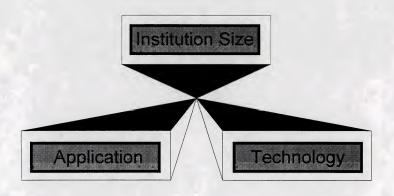
Mediocre Growth

- Professional Services
- Applications Software
- Turnkey Systems

Competitive Environment

- · Larger institutions still mainframe dependent
- Smaller institutions moving toward PC based systems
- Growing electronic interaction between customers and banks
- Management is looking for a measurable return on IS investments
- Banking sector remains dominated by largest institutions with 65% of deposits controlled by 2.5% of the banks

Fragmented Market for Vendors



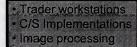
But patterns of service exist

Service Offering Patterns





- Niche applications
- Smaller institutions
- Newer technologies







- · Full service Smaller institutions
- · Specialized services Larger
- · Mainframe orientation

Consolidation for economy of scale

Service Offering Patterns





- · All sizes of vendors
- Small vendors niche
- · Large vendors broad based

Purchased by banking and finance firms of all sizes





- · Focused on larger institutions
- · Generally are larger vendors
- · Mainframe orientation

Migration to C/S will drive both markets

IS Market Share - Banking & Finance

Company	Market Share (Percent)
IBM	7
EDS	6
First Data Corporation	5
Systematics	3
Fiserv	3
ADP	3
Andersen Consulting	3
Dow Jones	2
DST Systems	2
Unisys	2

Summary - IS Competition

- Competition fierce for large institution dollars
- Good opportunities for both large and small vendors
- Integrators and outsourcers will see the biggest opportunities in the immediate future. Driven by:
 - Migration to C/S technology
 - On-going consolidation within the industry
- Maturation of new technologies will increase demand for vendors in all product/service markets

Conclusions

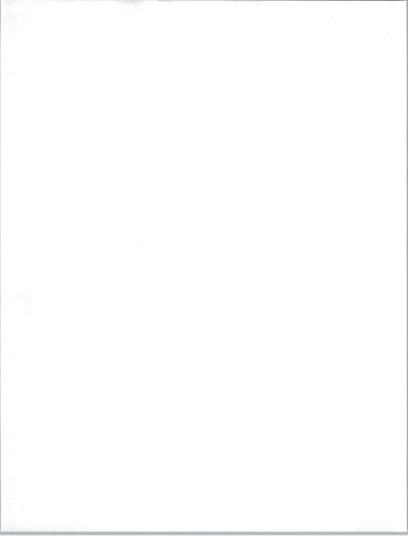
The industry is sound and will see new growth

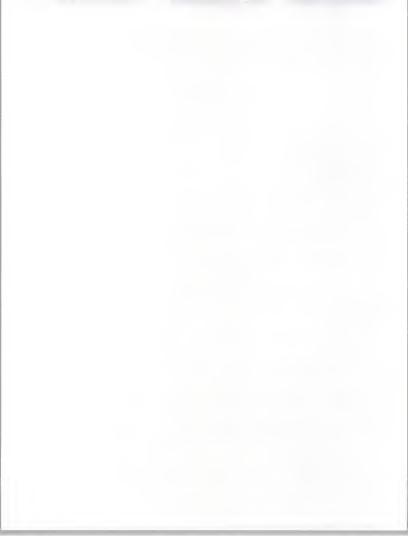
C/S will increase demand for outside software/services

Large vendors will benefit from globalization

The "virtual corporation" concept will benefit vendors

Niche markets wy continue to flourish





R. DENNIS WAYSON INPUT CONSULTANT PRESIDENT OF RDW ASSOCIATES

PROFILE

CAPABILITIES

- Analysis and consulting on the management of information systems; including process, organizational and technology issues, as well as information systems planning.
- · Consulting and analysis of outsourcing alternatives, contracts and bargaining strategies.
- · Strategy, market and competitive analysis for information services vendors.
- Consulting on business and product/offering strategies in the information services industry.

BACKGROUND

Prior to founding his own practice, Mr. Wayson served as the Vice President of U.S. operations for INPUT, a leading market research and consulting firm, focused on the information services industry. In that role he led significant custom research and consulting projects in support of INPUT's key clients. He also managed multi-client studies and a significant portion of INPUT's program research. Mr. Wayson brings his clients more than 20 years of experience in the management and planning of information systems. His experience includes executive positions in the management of systems development data processing operations, and office systems. As a Senior Vice President at the Bank of America his responsibilities included the management of user based systems on a worldwide basis. In his previous position as Director of Information Systems Development and Technology at Sun Company, Inc., Denny had responsibility for corporate-wide technology planning, corporate systems development and the systems planning process.

In addition to presentations to clients and their customers, Denny has served as a guest speaker at numerous conferences, seminars and educational institutions. Engagements include the Center for Software Development (Japan), ITAA, the IBM European Education Center, MIT, University of California, the University of Pennsylvania, the Andersen Consulting CIO Conference and the IBM National Conference on Office Systems. In addition, he has served as a member of the board of the Center for Information Systems Research at MIT.

EDUCATION

- · Master's Degree in Operations Research and Computer Science from Cornell University
- · Bachelor of Science in Engineering from Lehigh University
- Certificate M.B.A. from Columbia University Executive Program in Business Administration

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