

Implementing Communications-Driven and Group Decision Support Systems

Collaborating with peers at other locations is needed in many companies.



3/11/04

Implementing CDSS, by D. J. Power

1

Communications Support Technologies

- Audio Conferencing
- Bulletin Boards
- Web Conferencing
- Document Sharing
- Electronic Mail
- GDSS and computer-supported face-to-face meetings
- Interactive Video



3/11/04

Implementing CDSS, by D. J. Power

2

Categories of Group Support

- | | |
|---|---|
| <ul style="list-style-type: none"> ■ Same Time/Same Place <ul style="list-style-type: none"> ■ Decision Rooms, Computers with projector displays, Voting Tools ■ Different Time/Same Place <ul style="list-style-type: none"> ■ Workstation Software for shift work, Document Sharing | <ul style="list-style-type: none"> ■ Same Time/Different Place <ul style="list-style-type: none"> ■ 2-Way video, Audio Conferencing, White Boards, Screen Sharing, Chat ■ Different Time/Different Place <ul style="list-style-type: none"> ■ Conferencing, Bulletin Boards, E-Mail, Voice Mail |
|---|---|

3/11/04

Implementing CDSS, by D. J. Power

3

Communications-driven DSS architectures

- Decision Room
- Local Network Decision Support
- Video Conferencing Decision Support
- Web-based Decision Support

3/11/04

Implementing CDSS, by D. J. Power

4

Group Decision Room



3/11/04

© Lappeenranta University of Technology, Dept. of Industrial Engineering and Management, Finland
Implementing CDSS, by D. J. Power

5

Group Decision Support Tools

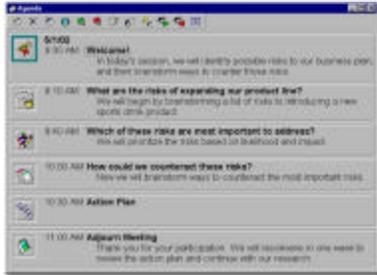
- | | |
|--|---|
| <ul style="list-style-type: none"> ■ Agenda Tools ■ Whiteboards ■ Opinion Meter ■ Idea Categorizer ■ Electronic Brainstorming | <ul style="list-style-type: none"> ■ Topic Commenter ■ Voting Tools ■ Survey Tools ■ Alternative analysis tools ■ Group Outliner |
|--|---|

3/11/04

Implementing CDSS, by D. J. Power

6

www.GroupSystems.COM

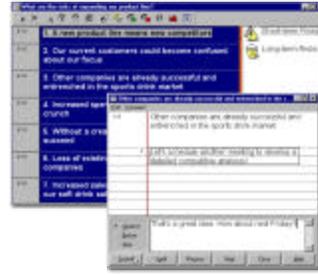


3/11/04

Implementing CDSS, by D. J. Power

7

Check the tour

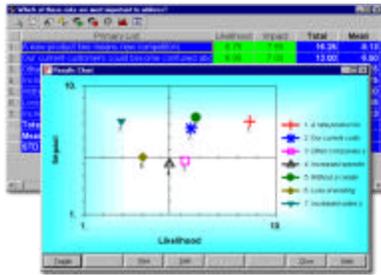


3/11/04

Implementing CDSS, by D. J. Power

8

Analyze Results



3/11/04

Implementing CDSS, by D. J. Power

9

Meetingworks.com

- Meetingworks for Windows GDSS on LAN
- Meetingworks Connect
- Meetingworks InternetEdition

3/11/04

Implementing CDSS, by D. J. Power

10

Meetingworks Cross Impact Tool Summary

Benefits of Using EMS		Improvements		Gain (Times)
Meeting discussion and decisions are documented.		EFFECTIVENESS		
	EFFECTIVENESS	EFFECTIVENESS	EFFICIENCY	
1	Meeting discussion and decisions are documented.	4.55 [17%]	4.50 [14%]	9.00
2	Successful processes can be copied.	4.13 [73%]	4.00 [10%]	8.13
3	Evaluation results show degree of agreement.	4.13 [12%]	2.75 [5%]	6.88
4	Participants can all "talk" at once.	0.88 [37%]	4.88 [7%]	9.76
5	Everyone gets an equal say.	3.38 [19%]	0.00 [0%]	3.38
6	Graphs can be printed in color.	0.38 [28%]	-3.75 [28%]	-3.37
7	Sum (Topic)	17.40	12.38	

3/11/04

Implementing CDSS, by D. J. Power

11

Choosing Group Support Software and Technologies

- There are 3 dimensions that are crucial for designing or choosing the Group Support Software
 - Task Type
 - | What is the group task?
 - Group Size
 - | How many are in the group?
 - Group Proximity
 - | Where are the group members located?

3/11/04

Implementing CDSS, by D. J. Power

12

Group DSS Benefits

- Simultaneous input leverages your team's time and creates higher quality ideas
- The computer system records ideas for distribution and future work
- Process support facilitates completing team tasks faster
- GDSS provides access to information that lets the group use outside data while working in the system
- Meeting can be held anywhere (even globally)
- Alternatives can be discussed with remote members through videoconferencing

3/11/04

Implementing CDSS, by D. J. Power

13

Task Types and Media Types

- Generating ideas and actions → decision support
- Choosing among alternatives → decision support
- Negotiating Solutions → face-to-face

3/11/04

Implementing CDSS, by D. J. Power

14

Virtual Organizations

- A company that operates continuously through traditional barriers of time and distance
 - By the year 2008 the typical large business will have half the levels of management and one third the managers of its counterpart today -- Drucker

3/11/04

Implementing CDSS, by D. J. Power

15

Virtual Organizations Benefits

- Increased effectiveness
- Reduced costs
- Improved client satisfaction
- Reduced capital
- Investment needs in new businesses
- Greatly reduced expenses
- Shortened lead times
- Better inventory management
- A direct connection with the customer

3/11/04

Implementing CDSS, by D. J. Power

16

New Organizational Structures

- Community Structure
 - Large number of interdependent organizations can be grouped into a multi-level hierarchy
- Federation Structure
 - Centralized computing resources can help small business owners and professionals coordinate their businesses – Application Service Providers

3/11/04

Implementing CDSS, by D. J. Power

17

Organizational Structures

- Mobile Structure
 - Information oriented structure that is mobile both in the sense of being transportable or moveable and responsive and changeable
- Skyscraper Structure
 - Managers at the "top" would supervise very few people and the number of management levels in the organization would be very large; Managers process transactions and use DSS

3/11/04

Implementing CDSS, by D. J. Power

18

Evaluating Communications-Driven DSS Products



- Reliability
- Cost
- Scalability
- Security
- Development Features
- Ease of Installation and Use

3/11/04

Implementing CDSS, by D. J. Power

19

Review Questions

- What are the four categories of Group support?
- What is a Virtual Organization?
- Why do managers need the support provided by GDSS?
- How can Communications-Driven DSS alter organizational structures and relationships?
- When would you use various group support tools?

3/11/04

Implementing CDSS, by D. J. Power

20