

Chapter 3.18

Group Support Systems as Tools for HR Decision Making

James Yao

Montclair State University, USA

John Wang

Montclair State University, USA

INTRODUCTION

In the late 1960s, a new type of information system came about: model-oriented DSS or management decision systems. By the late 1970s, a number of researchers and companies had developed interactive information systems that used data and models to help managers analyze semistructured problems. These diverse systems were all called *decision support systems* (DSS). From those early days, it was recognized that DSS could be designed to support decision-makers at any level in an organization. DSS could support operations, financial management, and strategic decision making.

Group decision support systems (GDSS) which aim at increasing some of the benefits of collaboration and reducing the inherent losses are interactive information technology-based environments that support concerted and coordinated

group efforts toward completion of joint tasks (Dennis, George, Jessup, Nunamaker, & Vogel, 1998). The term *group support systems* (GSS) was coined at the start of the 1990s to replace the term GDSS. The reason for this is that the role of collaborative computing was expanded to more than just supporting decision making (Patrick & Garrick, 2006). For the avoidance of any ambiguities, the latter term shall be used in the discussion throughout this article.

Human resources (HR) are rarely expected like other business functional areas to use synthesized data because HR groups have been primarily connected with transactional processing of getting data into the system and on record for reporting and historical purposes (Dudley, 2007). For them soft data do not win at the table; hard data do. Recently, many quantitative or qualitative techniques have been developed to support human resource management (HRM) activities, classi-

fied as management sciences/operations research, multiattribute utility theory, multicriteria decision making, ad hoc approaches, and human resource information systems (HRIS) (Byun, 2003). More importantly, HRIS can include the three systems of expert systems (ES), decision support systems (DSS), and executive information systems (EIS) in addition to transaction processing systems (TPS) and management information systems (MIS) which are conventionally accepted as an HRIS. As decision support systems, GSS are able to facilitate HR groups to gauge users' opinions, readiness, satisfaction, and so forth, increase their HRM activity quality, and generate better group collaborations and decision makings with current or planned HRIS services. Consequently, GSS can help HR professionals exploit and make intelligent use of soft data and act tough in their decision-making process.

BACKGROUND

In the early 1980s, academic researchers developed a new category of software to support group decision making. Execucom Systems developed Mindsight, the University of Arizona developed GroupSystems, and researchers at the University of Minnesota developed the SAMM system (Power, 2003). These are all examples of early group support systems. "A Group Support System could be any combination of hardware and software that enhances group work. GSS is a generic term that includes all forms of collaborative computing" (Turban, Aronson, & Liang, 2005, p. 374). The increased need for GSS arises from the fact that decision making is often a group phenomenon, and therefore computer support for communication and the integration of multiple inputs in decision support systems is required. The desire to use GSS therefore comes from the need of technological support for groups.

GSS are designed to remedy the dysfunctional properties of decision-making groups, such as

groupthink, lack of coordination, information overload, concentration block, and so forth. These systems are becoming popular in aiding decision making in many organizational settings by combining the computer, communication, and decision technologies to improve the decision-making process. These systems use a key tool to improve the quality of decisions made by a group. This key tool is the anonymity of members of a decision-making group. The purpose of GSS is to maximize the benefits of group work while minimizing the dysfunctions of group work. This maximization and minimization can be made possible by GSS mainly by two factors: anonymity and parallelism.

MAIN FOCUS

Strengths and Weaknesses of GSS

GSS provide support for communication, deliberation, and information flow especially for group activities that may be distributed geographically and temporarily. Group work has numerous benefits and advantages. First, groups are better at understanding problems and catching errors than individuals (Korpela, Sierila, & Tuorninen, 2001; Kwok & Khalifa, 1998). Second, a group has more information than any one member which when combined can create new knowledge. Third, working in a group stimulates creativity and synergy. Finally, groups balance out the risk-tolerant and risk-averse. GSS offer many benefits. First, GSS support parallel information processing, parallel computer discussion, and generation of ideas. Second, they promote anonymity, which allows shy people to contribute and helps prevent aggressive individuals from driving the meeting. Finally, these systems help keep the group on track and show the big picture. The two keywords here are parallelism and anonymity (Turban et al., 2005).

7 more pages are available in the full version of this document, which may be purchased using the "Add to Cart" button on the publisher's webpage:

www.igi-global.com/chapter/group-support-systems-tools-decision/8812

Related Content

Technology Leverages a Community University Collaboration

Sandra J. Chrystal (2009). *Handbook of Research on Electronic Collaboration and Organizational Synergy* (pp. 130-141).

www.irma-international.org/chapter/technology-leverages-community-university-collaboration/20170

An QPSL Queuing Model for Load Balancing in Cloud Computing

Shadab Siddiqui, Manuj Darbari and Diwakar Yagyasen (2020). *International Journal of e-Collaboration* (pp. 33-48).

www.irma-international.org/article/an-qpsl-queuing-model-for-load-balancing-in-cloud-computing/256534

Is More Technology Better for Communication in International Virtual Teams?

Cleber Marchetti Duranti and Fernando Carvalho de Almeida (2012). *International Journal of e-Collaboration* (pp. 36-52).

www.irma-international.org/article/more-technology-better-communication-international/61404

Case Study: A Collaborative of Content Designers and Developers

Beth Brunk-Chavez and Sunay Palsole (2010). *Virtual Collaborative Writing in the Workplace: Computer-Mediated Communication Technologies and Processes* (pp. 112-127).

www.irma-international.org/chapter/case-study-collaborative-content-designers/44334

Social Capital, Social Networks, and the Social Web: The Case of Virtual Volunteering

Dhrubodhi Mukherjee (2010). *Handbook of Research on Social Interaction Technologies and Collaboration Software: Concepts and Trends* (pp. 110-120).

www.irma-international.org/chapter/social-capital-social-networks-social/36023