Contemporary Trends in Organization Design

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This paper empirically examines current issues in organization design by reviewing current literature on organization design from 1995 to 2000. The paper presents three perspectives which have guided the study: information-processing theory, sociotechnical systems theory, and self-design. The findings suggest that information-processing and sociotechnical systems design approaches have been dominant in organization design in the past six years. A wider variety of data sources need to be reviewed to expand the analysis of patterns reported in this study.

This paper empirically examines current issues in organization design by reviewing current literature on organization design from 1995 to 2000. The data used in this study were collected from several recent journals and researches. This paper attempts to extend current understanding of organization design by using empirical evidence. The result of the study will be used to propose the contemporary trends in organization design.

This paper is organized as follows. It starts with the literature review, especially the three perspectives the study was based on : information-processing theory, sociotechnical systems theory, and self-design. After that, the current issues in organization design are examined. Then the findings are presented and the contemporary trends in organization design is proposed. Finally, the conclusions are claim by providing some ideas for implications and further research.

I. ORGANIZATIONAL DESIGN APPROACH

A recent comparison of organization design perspectives identified 10 design schools of thought or orientations that can be used to guide redesign programs (Shani and Stebbins, 1989). Three of the orientations are comprehensive; that is, they provide guiding models, spell out design principles, provide a redesign process, and have an empirical track record of application in different settings (Stebbins and Shani, 1989). The orientations are information-processing theory, sociotechnical systems theory, and self-design. These approaches are not part of a single theory of organizational structuring and are not exhaustive of all possible design decisions. However, these three approaches encompass most of the major decisions about how firms organize and can be applied to diverse organization during the new era.

1. The Information-Processing Design Approach

Jay Galbraith is credited with establishing the information-0processing orientation to design. According to information-processing theory, organization design is most usefully defined as a decision-making process (Nadler and Tushman, 1997). The decision-making process includes choices about goals, tasks to be accomplished, technology to be adopted, ways to organize, and ways to integrate individuals into the organization (Galbraith, 1996). The key is finding a balance or fit among these decisions and doing it in a way that is in step with the changing environment.

A comprehensive redesign program involve strategic-planning activities, reengineering of core work processes through computer and telecommunications enhancements, creation of a new formal structure, development of management systems to provide better coordination, and development of a new

organizational culture, as well as work-group norms and values. In this approach, information technology (IT) plays a role in each of these activities.

Information technology advances have resulted in a new macro organization design model. The model is an outgrowth of the information processing theory proposed by Galbraith and Nadler & Tushman. Managerial assessments of the environment and business situation help determine the organization's goals and strategies. Managers decide the best ways to group employees into departments, coordinate department activities, and provide additional integration by adopting various support systems. Emergent behavior and business results are directly tied to the quality of managerial choices made throughout the design chain.

2. The Sociotechnical Systems Design Approach

This concept was recognized by founders of the sociotechnical systems (STS) school of design as early as 1948. Eric Trist of the Tavistock Institute in London coined the term sociotechnical to describe the interrelatedness between social and technical systems within organizations. The principle of joint optimization wihtin these subsystems is the backbone of STS theory. An organization will function best if the social and technical systems are designed to fit the demands of each other and the environment (Pasmore, 1988; Taylor and Felten, 1993).

STS is a diverse and flexible approach to design. It demands a careful analysis of each situation (contingency perspective) and encourages managers to develop options to organize. It has strong ties to quality of work life (QWL) experiments, autonomous work groups, self-inspection of work quality, job enrichment, team orientations, and other design principles covered in this module.

3. The Self-Design Approach

Self-design is an outgrowth of STS theory. The self-design approach encourages managers to plan and implement their own strategy-structure change programs. The foundation for self-design is employee and manager training. New conceptual and empirical knowledge is needed to conduct a redesign project. Managers and employees are trained in project planning , diagnostic process, and design skills needed to run the program. Although self-design is still new, it promises to be a fruitful approach for the coming century. Self-design programs have been recently been conducted in telecommunications, aerospace, and software companies. There is a growing literature on self-design. (see Huber and Glick, 1993)

The three approaches above are aspects of organization design that can be used in this study. However, our position is that these areas are related and cannot be studied in isolation.

II. CURRENT ISSUES IN ORGANIZATION DESIGN

The data used in this study were collected from several recent journals and researches by reviewing current literature on organization design from 1995 to 2000.

1. Inter-firm networks: Antecedents, mechanisms and forms

In "Inter-firm networks: Antecedents, mechanisms and forms", Grandori and Soda (1995) present a discussion reviews and organizes the now vast literature on inter-firm networks. The aim of the study is the assessment of the important current forms of network, the organizational

mechanisms supporting them, and the main variables that have been shown to influence network emergence and shape. The authors are interested in networks as modes of organizing economic activities through inter-firm coordination and cooperation. Many forms of inter-firm network have been considered in the reviewed literature: joint-ventures, franchising, consortia, commercial agreements, sub-contracting, interlocking directorates, and personal networks. But the authors develop a classification of network forms for comparative purposes. The classifications are social networks, bureaucratic networks, and proprietary networks. The literature on inter-firm networks reviewed in this paper has led to the identification of some of the basic elements necessary for conducting future systematic comparative research on inter-firm organization structures and processes. The framework developed in this paper, therefore, can be used as a basis for developing testable comparative models of inter-firm organizational coordination.

2. The organization of global service MNEs

In "The organization of global service MNEs", Aharoni (1996) present a certain relationships between successful key factors in multinational professional service firms and the structure and systems of these firms. The author examines the work of Bartlett and Ghoshal (1989) and, in particular, stressed the role of overseas operations in creating unique configurations for international operations. Firms operating in many countries can be based on self-sufficient national units and a decentralized system ("multinational"), on a globally scaled centralized system ("global"), on a hybrid design ("international"), or in the "transnational" mode. The transnational design, according to Bartlett and Ghoshal (1989), goes beyond the matrix configuration. Propositions on the structure of professional service

multinationals are different from manufacturing multinationals in several important respects. For example, they are people-intensive and demand minimal investment in fixed assets, in other words, the firm becomes a "voluntary" organization. Economics of location are important. That is, it is important to have a branch wherever the multinational clients have branches. A related factor is the degree of customization, the degree of importance of information systems, and the degree of the client's uncertainty before or even after the service has been rendered. The resulting propositions help provide the basis for a contingency theory of organizational structure and systems.

3. New technology and the emerging organizational paradigm

In "New technology and the emerging organizational paradigm", an empirical assessment, Harvey, Michel, Bengt, and Helene (1996) proposed several hypotheses associated with organizational design in the context of new and flexible technologies. Three distinct technologies were examined in different geographical locations: Sweden, France, and Canada. The hypotheses illustrated how workplaces were being organized within the context of flexible new technology and the movement toward an emerging new paradigm of work. The data from 12 companies were plotted on a matrix of organizational design principles against organizational design implementation to illustrate changing organization design patterns as well as geographic differences between companies. The authors concluded that within the boundary constraint for these design principles set by the context of flexible technology, they should augment previously published principles of sociotechnical design (Cherns, 1976; Emery, 1978; Trist, 1981) and lead to a better appreciation of the scope of the emerging paradigm.

4. Equifinality: Functional equivalence in organization design

In "Equifinality: Functional equivalence in organization design", Gresov and Drazin (1997) present the importance of equifinality in organization design. In recent years, several studies have demonstrated the concept empirically. The assumptions regarding function and structure that underlie contingency theory are exposed, and a functional equivalence view of design is developed. By examining the degree of conflict in functional demands together with the latitude of structural options available, three different types of equifinality are revealed: 1. suboptimal, 2. tradeoff, and 3. configurational. The authors believe that by focusing the attention on the three equifinal cells, we will (a) broaden the foundations in which design theory is formulated, (b) spell out the practical implications of the phenomenology of design, and (c) imply a general shift in research on the design of organizations. Each of the proposed varieties of equifinality has implications for the development of design theories .

5. An organizational assessment of interfirm coordination modes

In "An organizational assessment of interfirm coordination modes", Grandori (1997) proposes that a fine-grained description and comparison between a variety of coordination mechanisms used in different forms of inter-firm networks are needed in order to explain and predict satisfactorily the organization of inter-firm relations and its consequences, and that organization theory has a lot to say in this direction. In his previous paper (Grandori and Soda, 1995), the authors reviewed the vast inter-firm networks literature with the aim of identifying the principal coordination mechanisms described in network research, as well as some discrete forms of network from an organi-

zational design perspective. They looked at salient mixes of coordination mechanisms as defining and discriminating characteristics of different forms of network and classifying them into the three broad categories of 'social', 'bureaucratic' and 'proprietary' networks (Grandori and Soda 1995). In this study, the purpose is to identify which of these mechanisms are most relevant, and how they can be theoretically and empirically combined into discrete alternative modes of organizational coordination between firms. By analyzing network forms as mixes of coordination mechanisms, a framework offers a typology of inter-firm organization forms that is much more fine-grained and conducive to network organization design than those previously available. The predictive power of the framework is demonstrated by using the vast empirical research available on various types of networks, showing its capacity to explain the main findings on the use of different network forms for governing different types of relations.

6. Some ideological foundations of organizational downsizing

In "Some ideological foundations of organizational downsizing", McKinley, Mone, and Barker (1998) present some ideological foundations of organizational downsizing. In retrospect, most of the academic literature on downsizing has focused on the consequences of downsizing for organizations and their employees. Theoretical papers have analyzed the structural effects of downsizing (DeWitt, 1993; Sutton & D'Aunno, 1989; McKinley, 1992) and the relationship between downsizing and organizational redesigns processes (Freeman & Cameron, 1993). According to DeWitt (1998) and Budros (1997), the downsizing literature has paid less attention to the antecedents of downsizing and how these causes have changed over the past

few decades. This article helps address this gap by discussing one of the important contributors to organizational downsizing in the 1990s: managerial ideologies. The ideological foundations of organizational downsizing in the 1990s are explored, with a focus on the ideology of employee self-reliance and the ideology of debureaucratization. The authors have argued that these 2 ideologies increase the likelihood of downsizing. The two ideologies tend to reinforce one another, and both contribute to an ideological environment in which downsizing is seen as an acceptable and even desirable thing to do.

7. The relationship among organization structure, information technology and information processing in small canadian firms

In "The relationship among organization structure, information technology and information processing in small Canadian firms", El Louadi (1998) present research result obtained through a mail survey of 244 small business enterprises based in Quebec, Canada. He thinks that the challenges of contemporary organizations face are increasingly turbulent, complex, and uncertain environments. One uncertainty-reduction mechanism that is available to organizations is information processing. The types of information that organizations need to process are internal and external. This research used the results from past research based on information processing and information systems theory, the study distinguishes between the provision of internal and external information. Analysis of the data shows that contrary to expectations, structural interacts negatively with IT to explain the provision of internal information. The specific structural dimension that contributed to this interaction effect is horizontal differentiation. Both results suggest that increasing the deployment of IT improves the provision of internal information more rapidly when horizontal differentiation is low. No such interaction effect was

found to explain the provision of external information.

8. Waving hello or waving good-bye? Organizational Change in the information age

In "Waving hello or waving good-bye? Organizational change in the information age", Schwarz and Brock (1998) present a study examines organizational change in an evolving technological age. Extant organization theory focuses largely on technologically-induced transformation. The paper argues that this focus is inappropriate. With the proliferation of information technology in the workplace, change literature propounds a particular view of the organization: a lean, flat and networked organization. The literature reevaluating future change and future shock prediction. The study establishes a more realistic account of technology and the organization and questions the accuracy of the "altered organization" expectation. In developing a conceptualization of a "limited reality of change," the researchers imply that predicted changes are not as clear cut as certain proponents would have us believe. Though there is a willingness throughout technology change literature to slip into the language of organizational transformation, the paper indicates that the reality of change is far more restrictive than has largely been previously acknowledged. The paper concludes by proposing the coexistent organization as an alternative that hierarchical organizational forms can coexist with a networked organization.

9. Interdependence, coordination, and structure in complex organizations: implications for organization design

In "Interdependence, coordination, and structure in complex organizations: Implications for organization design", Ensign (1998) argues that

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interdependence and the need for coordination and integration are-or at least should be-vital concerns in organization design. Interdependence has been examined, and he proposes that: (1) an organization needs to develop potential interdependence as well as manage existing interdependence, and (2) structural barriers must be overcome in order to manage interdependence more efficiently and effectively. Structural barriers are defined as: (1) part-whole or subsystem-system relationships--the way tasks and activities are organized into groups; and (2) authority, power, and influence patterns--the way groups are organized to achieve integration and coordination among groups. In today's globally competitive environment, the firm needs to continuously revise its organization design. To achieve competitive advantage, the firm needs structural mechanisms and processes that emphasize lateral rather than vertical relationships. A firm must structure the organization in a way that will encourage unit growth but still provide overall growth for the firm. This means a firm must structure or align interdependent groups in a way that fosters teamwork and collaboration. Interdependence requires system solutions that integrate components across the organization.

10. Accelerated business transformation and the role of organizational architect

In "Accelerated business transformation and the role of organizational architect", Cheyunski and Millard (1998) propose that new approaches to business transformation are emerging to address significant need and to serve as successors to reengineering, which has acquired a reputation for being slow and ineffective. In the early 1990s, reengineering emerged as the popular approach to business transformation. It brought together business process redesign (BPR), information technology (IT), and to a lesser degree organi-

zation development (OD) to address corporate concerns for achieving break-through performance (Porter, 1990). In the latter half of the 1990s, many corporations had mixed experiences with reengineering efforts. BPR and IT have been the more tangible, clearly articulated aspects of business transformation. However, these disciplines alone cannot ensure transformation. It is the less tangible organizational (or people) aspects that are critically important for successful business transformation. If people are not taken into account and do not understand the new processes and systems, a transformation will be negatively affected or will even fail. This study presents the key to success with an accelerated method of blending business process redesign, information technology, and organization development disciplines to help clients pursue an appropriate course for a dramatic business improvement. Within this method, the organization architect role plays a significant part in enhancing interdisciplinary work and accelerating business transformation.

11. The virtual design team

In "The virtual design team", Kunz, Christiansen, Cohen, Jin, and Levitt (1998) propose that the vision of the virtual design team (VDT) is that managers should design organizations the same way engineers design bridges: by building and analyzing computational models of planned organizations and the processes they support. In the past, organization theory predicts that coordination of concurrent interdependent activities is significantly more difficult and costly than coordination of the same activities performed sequentially. A case study is presented of an aerospace company in order to illustrate the way a VDT model can provide theory and tools to predict the impacts of organizational changes. The approach in the VDT study is to extend organization theory so it considers individual organizational entities such as actors,

activities, and both direct and coordination work. The VDT system is an early example of building symbolic models of social sciences theory. The theory is inherently qualitative, but symbolic models now allow computational representation and manipulation of qualitative conceptual entities, their attributes, relationships, and behaviors. The computational implementation of theory is much more precise as a computational model than theory in classical text form. In addition, the computational symbolic model is executable and therefore inherently repeatable and testable.

12. Whole system design (WSD): The shifting focus of attention and the threshold challenge

In "Whole system design (WSD): The shifting focus of attention and the threshold challenge", Levine and Mohr (1998) present the whole system design (WSD) as a new challenge for organizational design. The term design describes both the activity of rethinking and implementing changes in the whole system and the resulting organizational architecture-as in "the new design." By the whole system, they mean the "technical and social system" components within any part of an organization containing two or more core business processes from start to finish. The technical system includes the core business processes, the set of linked activities or steps typically crossing functional and sometimes organizational boundaries, as well as the technology (hardware and software) required transforming inputs into outputs of value for the customer. The social system, by contrast, is the set of roles, jobs, and relationships; performance measures; structures; beliefs and assumptions; and the management systems and policies require supporting core business processes. Threshold challenge occurs when attention shifts from the technical system design (business process/work flow and equipment) to the social

system design (roles, measures, and structures). During technical system design, strong emotions about loss-of status, authority, and certainty-can be suspended, but starting design of supporting social elements tends to unleash these concerns. The authors' thesis is that successful implementation is most likely when (a) the people who do the work are the ones engaged in the redesign of both the technical and social systems; (b) individual and structural change is addressed systemically among organizational development, information technology, and business process reengineering professionals; and (c) the predictable midpoint challenge (the threshold challenge) associated with shifting the focus of attention in whole system design (WSD) is understood and managed effectively.

13. Structuring inter-firm relationships: A meta-analytic approach

In "Structuring inter-firm relationships: A meta-analytic approach", Sobrero and Schrader (1998) use a multi-disciplinary perspective to identify 2 fundamental dimensions which characterize the structuring of inter-firm relations: contractual coordination and procedural coordination. Contractual coordination refers to the mutual exchange of rights among the parties involved. Procedural coordination refers to the mutual exchange of information among the parties. Traditionally, these two dimensions relate to different streams of research. Contractual coordination has been primarily investigated by research concerned with the distribution of rights within a relationship. Procedural coordination has been the focus of work concerned with how firms or organizational units align their joint processes through organizational mechanisms. This study, through a quantitative meta-analysis of 32 empirical studies, shows that both dimensions are influenced by the same underlying constructs; that they fulfill different but complementary roles

in the governance of the relationship; and how their systemic fit impacts the performance of the relationship. These results discussed highlight their implications for the design of inter-organizational research.

14. Exploring mediation between environmental and structural attributes: the penetration of communication technologies in manufacturing organizations

In "Exploring mediation between environmental and structural attributes: the penetration of communication technologies in manufacturing organizations", Choong and Varun (1999/2000) present the relationship between structure and technology as increasing in an environment where organizations are using contemporary IT to redesign themselves in order to compete more effectively. The authors think that the relationship between organizational structures and information technology (IT) has been the subject of much discussion in IS research. But the studies have not yielded conclusive results. In this article, a study that examines the relationship between the use of an important class of IT, communications technologies (CT), and organizational structural attributes within a broad contingency context is presented. Hypotheses are proposed based on theory from the information-processing paradigm examining the mediating role of communications technologies in the relationship between environmental characteristics and organizational structural characteristics. Data from 153 manufacturing firms are collected and analyzed. The results show that CT seems to play a direct role in reinforcing structures that emerge from environmental dictates. The expanded set of variables considered in this study and the results provide indicate potentially strong implications for future work in this important area.

15. Integrating job characteristics, sociotechnical systems and reengineering: presenting a unified approach to work and organization design

In "Integrating job characteristics, sociotechnical systems and reengineering: presenting a unified approach to work and organization design", Farias and Varma (2000) present a unified approach to work and organization design. The authors analyze the design principles of three work and organization design models. They indicate that there is a high degree of overlap between the three models and suggest an opportunity for integration into one model. The authors propose that to enable this integration the manager should take a holistic and integrated perspective, focus on core work processes as the unit of analysis, strengthen the principle of autonomy, keep all levels of analysis in focus, focus on the process of design, and underlying philosophy. An integrated model needs to follow these steps: (1) develop temporary participative structures to design/redesign the organization, (2) discover the vision, mission and values of the organization, (3) conduct a detailed diagnosis, and (4) redesign. Each organization should adopt design features that are appropriate to its won unique situation. The important principle that needs to be applied is "congruence" or "harmony" among the design features.

16. Fundamental changes in marketing organization: the movement toward a customer-focused organizational structure

In "Fundamental changes in marketing organization: the movement toward a customer-focused organizational structure", Homburg, Workman, and Jensen (2000) draw on qualitative interviews with 50 managers in the

US and Germany. The authors mentioned a growing interest in the future of marketing and changes in marketing's organization and role within the firm. However, there has not been research that holistically explores key changes in marketing organization. They initially discuss two specific changes related to the overall shift: changes concerning primary marketing coordinators and the increasing dispersion of marketing activities. They then introduce the concept of a customer focused organizational structure that uses groups of customers as the primary basis for structuring the organization. They identify typical organizational transitions as firms move toward a customer-focused organizational structure and discuss the challenges firms face in making this transition. They conclude with implications for academic research, managerial practice, and business school curriculum.

III. RESULT

Table 1 presents the summary of the main focus of current issues in organization design. It is evident that the information-processing and the sociotechnical systems design approach have dominant in organization design within the past six years (1995-2000).

IV. CONTEMPORARY TRENDS IN ORGANIZATION DESIGN

The result from this study indicate some potentially important trends in organization design are as follows:

- The forces for change indicate that most organizations in the future will becoming leaner. One reason is that technology performs many of the functions that staff performed in the past.
- The structures are more decentralized and networked. The bound-

aries of organizations will often be hard to discern. In addition, employees are given the autonomy to make decisions and take action.

- The demands of subsystem and the environment are still the main interest in organizational design.
- There will be higher level of horizontal communication and collaboration in organization
- The manager and the employee will be more opportunity to plan and implement their own strategy-structure change.

TABLE 1

Summary of the Main Focus in Organization Design

Year	Authors	Issues	Design Approach		
			The Information-Processing	The Sociotechnical System	The Self-Design
1995	Grandori and Soda	Inter-firm networks: Antecedents, mechanisms and forms	* Inter-firm network *Support system *Coordination		
1996	Aharoni	The organization of global service MNEs	*Information system *Matrix configuration	*Contingency factors *Clients demand	
1996	Harvey, Michel, Bengt, and Helene	New technology and the emerging organizational paradigm	*Flexible technology	*Sociotechnical design *Contingency factors *Demands of the environment	
1997	Gresov and Drazin	Equifinality: Functional equivalence in organization design		*Contingency factors	
1997	Grandori	An organizational assessment of inter-firm coordination modes	*Inter-firm network *Coordination mechanisms		

TABLE 1 (cont.)

Year	Authors	Issues	Design Approach		
			The Information-Processing	The Sociotechnical System	The Self-Design
1998	McKinley, Mone, and Barker	Some ideological foundations of organizational downsizing	*Debureaucratization		
1998	El Louadi	The relationship among organization structure, information technology and information processing in small Canadian firms	*Internal and external information *Horizontal differentiation structure	*Complex and uncertain environments	
1998	Schwarz and Brock	Waving hello or waving good-bye? Organizational change in the information age	*New Technology *Coexist of hierarchical and network structure		
1998	Ensign	Interdependence, coordination, and structure in complex organizations: Implications for organization design	*Coordination and integration *Power and influence *Lateral structure *System solution	*Potential interdependence *Part-whole or subsystem -system relationships *Teamwork	
1998	Cheyunski and Millard	Accelerated business transformati n a d the role of organizational architect	*Reengineering *Blending BPR, and OD		*Employ e training

TABLE 1 (Cont.)

Year	Authors	Issues	Design Approach		
			The Information–Processing	The Sociotechnical System	The Self–Design
1998	Kunz, Christiansen, Cohen, Geoff, Jin, and Levitt	The virtual design team	* Using computational Models for structure design * Coordination * Information Technology	* The virtual design team	
998	Levine and Mohr	Whole system design (WSD): The shifting focus of attention and the threshold challenge	* BPR, IT, and OD * Cross functional structure * Technology support	* Technical system design * Social system design	
1998	Sobrero and Schrader	Structuring inter–firm relationships: A meta-analytic approach	Contractual and procedural coordination		
1999/ 2000	Choong and Varun	Exploring mediation between environmental and structural attributes: the penetration of communication technologies in manufacturing organizations	* Communication technologies (CT) *Contemporary IT	Contingency factors	

TABLE 1(Cont.)

Year	Authors	Issues	Design Approach		
			The Information-Processing	The Sociotechnical System	The Self-Design
2000	Farias and Varma	Integrating job characteristics, sociotechnical systems and reengineering: presenting a unified approach to work and organization design	* Reengineering	* STS	
2000	Homburg, Workman, and Jensen	Fundamental changes in marketing organization: the movement toward a customer-focused organizational structure	* Customer focused organizational structure	* Group of customer	

V. DISCUSSION

Based on the result of this study (see Table 1), information technology, coordination mechanisms, reengineering, and inter-firm network are the main focus of the information-processing design approach. Following Scott's (1992) review of organization theory, one of the most widely studied organizational variables is that of organizational structure. The result from this study indicates that interest has shifted beyond the boundary of the firm to consider the organization and structur of activities in interfirm networks. In addition, coordination of activities continues to be the main interest in organizational design. However, such coordination has shifted the focus from hierarchical control to the development of information system as support system.

Contingency factors, demand of subsystem and the environment, technical system and social system design, and teamwork are the main focus of the sociotechnical systems (STS) design approach. In this approach, contingency theory plays an important role to explain the way the environment and organization structure react to each other. The finding indicates that demands of subsystem and the environment are still the main interest in organization design. The STS theory principle of joint optimization of these subsystems is still important. However, quality of work life (QWL) experiments, autonomous work groups, self-inspection of work quality, and job enrichment are currently not focused on.

The third approach, the self-design approach, is not a main issue. However, this approach is a new concept for organizational design. The self-design approach encourages managers to plan and to implement their own

strategy–structure change programs. And the foundation for self–design is employee and manager training that promises to be a successful approach for the coming century.

This study, focus on the demands placed on organizations in the future and the probable designs that can be used to meet those demands. The first forces of change affecting the design of organization in the future are environmental demand and technology. Environment is the most important source of demands influencing organizational design in the future. There is the continuing importance of global business that affects organization design. Many organizations have already expanded globally and have become members of the world economy. The second force for change is information technology. IT will have a major influence on future designs because of its ability to respond to environmental demands. This paper has argued that information technology will not force changes in organizations regardless of their situation; rather IT will influence organizations by taking contemporary organization away from the traditional hierarchy.

For future research, a wider variety of journals and researches need to be reviewed to expand the analysis of patterns reported in this study. In view of this review and analysis of differences and trends from 1995 to 2000, we expect future research at the beginning of the new millennium to continue to emphasize relevance study.

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