Strategies for managing the teamworking agenda: Developing a methodology for team-based organisation

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Abstract

This paper reports the development of a vision driven organisation design methodology, strategic designs for teamworking (SDT), for use by senior managers in their role as organisational architects and engineers. The methodology is based upon models of teamworking. These were developed from existing theory and empirical research. SDT enables managers to design or redesign a requisite organisational form at both a conceptual and detailed level, with the aim of designing and implementing a requisite organisation to contribute to the delivery of strategic objectives. © 2000 Elsevier Science B.V. All rights reserved.

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1. Introduction

Research on teamworking and teambuilding seems to have given considerable attention to team skills [1,2] and work design within teams [3,4], whereas there has been less investigation into the links between teamworking and an organisation’s specific technology, the strategic use of teamworking, or the significance of an organisation’s culture on the form of teamworking adopted. Through our research we have come to consider teamworking as part of a strategic, corporate response to the demands for increased efficiencies and higher quality levels, combined with flexibility and continuous innovation, all of which are required to respond to an increasingly competitive and global market place [5]. Given this, the recent drive towards teamwork has departed from its traditional prime concern, the quality of working life [6]. Instead, the key focus now emphasise teamworking as the main organisation design parameter to improve product quality and enhance productivity and performance levels [7], in order to deliver strategic objectives and gain competitive advantage.

Attempting to purposefully design and introduce specific forms of teamworked social organisation to ensure the achievement of strategic priorities is a significant addition to flexing the more accepted levers for competitive advantage, namely advanced technologies and integrated information systems.

“Organisational engineering” of this kind can be
seen as an enhancement, at the level of manufacturing systems design, of the argument for manufacturing as “a strategic competitive weapon” [8]. Furthermore, if teamworking is introduced as the critical social linkage connecting technologies and systems to ensure their strategic exploitation, it might be argued that it lies at the heart of a resource-based manufacturing strategy [9].

2. Experiences with teamwork

Though many writers extol the virtues of teamworking, unfortunately companies often experience difficulties in its implementation [5,10–13]. In the current climate of global competition, managers may tend to rush towards a generic team-based solution to their problems, possibly buying consultants’ prescriptions, or emulating the manufacturing processes and organisational forms that have been adopted by companies they know, or regard, as being successful. Organisational leaders may see a particular form of teamwork adopted elsewhere and consider this to be a panacea – something to which they must aspire. In doing so, they may discount other options, and implement, without carefully assessing the appropriateness of the model they are considering in relation to their strategic requirements, cultural context, or the complexities of the change they are attempting. It is naïve approaches such as these that can lead to the notion of teamworking being discredited by both management and employees. Any organisation embarking on a strategic teamworking venture needs to appreciate the long term and complex nature of the undertaking, and respond accordingly. The introduction of teamworking is essentially a strategic venture involving both organisational redesign and the development of a change initiative.

Flexible, team-based approaches to manufacturing are implicitly linked with a general move amongst leading-edge manufacturing organisations towards a “total systems approach”, and the formation of cellular organisational structures, which aim to form natural groups of people and machinery around information and material flows [14]. The change has been described by [15] as a “new theory of manufacturing”, which will characterise the “post-modern factory of 1999”. We have adopted the term “New Wave” [16] as a label for this emergent institutional form.

Because our research focus was on corporate organisational configuration and the management of change, our work draws heavily on configuration researchers who have conceptualised organisations holistically and drawn attention to the importance of organisational archetypes in the planning and management of change [17–19]. Particularly, Hinkings and Greenwood’s [20,21], work provides a framework for the analysis of archetypal forms. They consider the archetype in terms of the pattern formed by the interplay between interpretive schema, prescribed frameworks and emergent interactions. “Interpretive schema”, embody the beliefs, ideas and values of the designers and inform and shape the “prescribed framework”. “Emergent interactions” result from application in response to the interplay between the “interpretive schema”, the “prescribed framework” and external environmental events. Initially developed for the study of whole organisational forms, particularly in understanding the dynamics of change, we have adapted this model for use in our research on teams, since we consider the strategic use of teams to be the building blocks of social organisation.

3. Research methodology

Our research was undertaken from both a theoretical and empirical perspective. Initially, we conducted extensive literature searches to ascertain the status of existing theory, as well as undertaking three in-depth case studies of manufacturing companies all of which had a considerable track record in designing and implementing teamworking. It was to these conceptual issues of the design of the teamworked organisational form on the one hand and the process of implementation on the other that the detail of our cases attended. From these data sets, we drew some tentative conclusions and developed initial conceptual models. These became the basis for our work and as our research proceeded we integrated research findings, both theoretical and empirical, into these models of
teamworking. By so doing, broadly we followed a “grounded theory” approach [22–27].

In all, empirical work was undertaken in 14 companies, involving some 134 interviews with managers at all levels. Our research strategy fitted broadly Cohen et al.’s [28] conception of “longitudinal empirical study”, in which

“the research method is not direct observation, but rather reconstruction from the organisation’s written and oral histories, and perhaps from preserved artefacts” (p. 681)

Data was collected using the concept of a “time line”, which enabled respondents to identify and discuss both the purposes for introducing teamworking and the activities which had to be undertaken including the order in which they were introduced into the company. Such an approach to data collection allowed respondents to address the issues of transformation holistically and systemically, including both design and implementation issues. The “time line” method proved particularly user friendly, providing respondents with a natural method for recounting their stories, as well as providing transparency of data for immediate validation. Equally, this process supported further validation and triangulation of specific data by checking across the accounts of others in the same company. Additionally, company documentation was accessed and incorporated where available and appropriate.

4. Research findings: conceptual models of teamworking

The popular adoption of teamworking has been argued to be part of companies’ attempts to shift manufacturing paradigm from the legacy “Fordist” forms [29] that dominated most Western manufacturing firms for the past 50 years to the “New Wave” forms [16] that have emerged from the Pacific Rim and particularly Japan. In any attempt to shift paradigm, the change is inevitably “a step into the unknown” and therefore is likely to be more dominated by ideas, beliefs, and recipes about how to achieve the “new utopia” rather than exclusively driven by pragmatism and contingency. In these circumstances it is to be expected that organisational configuration is conceived and enacted in the form of a model or archetype – it is a means of simplifying uncertainty and focusing on key features of the desired change.

We begin with the view that teamworking was largely seen as a generic intervention. However, the fieldwork revealed much evidence of contextualising differences in purpose, design, and implementation within specific task environments. Although there was some evidence of the implementation of an overall “archetypal” approach to teamworking, within this were different types of teamworking. There were distinct differences in the way such approaches were structured, managed, and most significantly in our view, in the underlying ideas which shaped their purpose and functioning.

Our research content analysed the case and interview data and identified the characteristics of the overall archetypal team form, which we labelled the “self-directed” model of teamworking. We also identified two “types” of teamworking within the overall archetype. These appeared to be related directly to the task context of the application of teamworking, and seemed to be designed with specific purpose in mind. For example, in both aerospace and in the offshore industry a strong orientation to “project” teams could be found, whereas in automotive, “lean” teams dominated. These reflected the needs of differing manufacturing systems (see [30]). Our view is that each of these were sufficiently separate and distinct in their objectives and deliverables, as well as their form and features to be considered to be distinct types within the overall archetype. Each of these forms comprised a specific prescribed format for teamworking containing features best suited for pursuing particular purposes.

Briefly, the overall self-directed archetype was characterised by the aim of introducing self-control through empowerment of staff. Often it was implemented by removing supervisory levels, flattening the hierarchy, increasing multi-skilling, harmonising conditions of employment, and introducing single status. The aim was to develop social control through a committed, motivated, flexible, responsive staff, capable of delivering quality and innovation. The central purpose of the self-directed model
was the desire to break a legacy of alienation and instrumentality characteristic of many workforces. The interpretive schema underpinning the self-directed archetype was dominated by social system characteristics, i.e. the nature of human beings and group behavior. Its ideas, values and beliefs addressed the characteristics of the technical system only inferentially, viz., meeting the need for quality and flexibility. In the literature this form of teamworking has been referred to as “self-directed” [31–33], “Swedish” [34] and “socio-technical” [35,36].

Within this overall archetype, the two sub-types could be found. Firstly, the lean sub-type seems best fitted to routinised task environments and aims to support, and continuously improve, demand driven production systems that are tightly-coupled and standardised, with little slack in inventory or time. There is formal leadership often accompanied by relatively low levels of autonomy, with most opportunities for creativity and innovation occurring off-line in the search for continuous improvement. The prescribed format for lean teams is often dominated by technical system requirements [35,36,34,29]. This can prove alienating of individuals operating in the lean teams. Indeed much of Wickens’ work has addressed ameliorating the potentially oppressive features of lean production [37] and others have written in a similar vein [38].

Secondly, there is the project sub-type. This capitalises on the traditional strength of the project team which has a limited life, is technically specific, and formed to deliver to a pre-defined client need usually within a prescribed time constraint and budget. The project sub-type is composed of specialists, integrated together to complete a single, complex and multi-disciplined task. It is appropriate in non-routine task environments such as concurrent, or simultaneous engineering and partnering, which have encouraged project teamworking across internal and external organisational boundaries, and the acceptance of a degree of ambiguity and fluidity in design as inevitable and necessary to achieve the objective of integrating and compressing development time scales and meeting customer requirements [1,3,39–50].

5. Selecting an appropriate team form

Many companies are emerging toward the “New Wave” model from a traditional organisational legacy with features such as long hierarchy and having a strong emphasis on functional division, push systems, incorporating high stock levels, adversarial relations both inside and out, etc. For an organisation to break from such paradigm thinking and traditional legacy, its architects and designers need help in conceptualising and articulating a clear configuration for which to aim. The team forms previously identified aid this thinking process (see Fig. 1: Teamworking trajectory). Our research suggests that the ultimate emergent form will be a combination of the overall self-directed archetype, subsequently contextualised by the task context.

Because of the idiosyncratic nature and specific needs of particular task environments, no generally applicable “best-model” exists, even for the same industry, product or technological environment [51]. Management rarely will be able to adopt either a single ideal team form, or successfully achieve all the objectives of teamworking embodied in the team types. Instead they may emphasise “one or two dimensions at the expense of the other(s)” [51].
The aim is for the designed team form to match the needs of the task context and provide a balance appropriate for the achievement of organisational purposes [37,38,52]. The “fit” of the designed form to the existing organisation will be influenced by the work content, the nature of the task, the technology employed, and the environment [53–60].

Our case evidence supported previous work by others, that if an organisation achieves transformation to a new archetypal teamworked form, it may find this to be insufficient, or possibly unstable [12]. DiMaggio and Powell [61] noted that the more an organisation is tightly coupled to a prevailing archetypal template within a highly structured field, the greater its instability in the face of external shocks. In this situation, the role of incorporating the characteristics and values of at least one other archetypal team form into its philosophy, in essence fine tunes the organisation to become more integrated [21].

A “New Wave” integrated organisational form is an ambiguous concept difficult to articulate with sufficient clarity to provide an achievable goal. However, the self-directed archetypal team form on the one hand, and the task based team types on the other, can be used to affect interpretive schema by readily providing conceptualisations of new and different organisational forms which can offer the vision for future direction. In this way the archetype and the team types can be used to assist the organisation in breaking from its existing orientation or legacy, transforming the organisation and achieving radical change [21,62,63].

Leading-edge manufacturers are responding to a marketplace which is demanding both cheap products and high variety. This strategy requires a combination of the quality and productivity offered by lean production techniques, the flexibility and innovation that self-direction can inspire, and the ability to rapidly solve complex problems and co-ordinate the work of specialists that project teams achieve. We believe the effective implementation of “New-Wave” organisational forms involves the integration of selected team characteristics into a combination that is most appropriate to the strategy, culture and technology of the company. This is a complex task requiring the development of a methodology to aid managers in this process.

6. Developing the strategic designs for teamworking (SDT) methodology

This purpose of the SDT methodology, therefore, is to assist managers and organisations to navigate the path from a traditional, or “legacy organisation”, to a “New Wave” form. Consequently, the aim of the methodology is to encourage a more strategic approach to the adoption of teamworking, such that the actions taken are in alignment with, and appropriate to, the strategic intent of the organisation. The methodology will also offer assistance to those organisations that have travelled part way along the journey towards implementing an appropriate team form, but have not tackled some legacy issues, or are reverting to type because they have failed to change their infrastructure to support the new behaviours.

To undertake this development work, the project moved into an action research phase. The design of the SDT methodology assumes that strategic choices about the form of teamworking best suited to specific manufacturing environments are constrained by the degree to which teamwork is articulated in the minds and experience of the managers involved in taking the decision. If teamworking is only seen as an undifferentiated generic approach suited to all situations, then it is difficult to know whom to imitate, or which choice to make between various consultant offerings, or how to design different approaches to teamworking in different parts of the manufacturing process. The three conceptual methods of teamworking upon which the SDT methodology is based are underpinned by differentiated assumptions and aims. The logic of the SDT methodology is to use these models to introduce the generic, self-directed form of teamworking, and then subsequently to articulate the relationship between manufacturing purpose and organisational design so as to enable practitioners to identify and contextualise their specific experiences and aspirations for teamworking. The SDT methodology is intended to enable managers to better understand their current teamworking arrangements, evaluate how well these fit their strategic purposes, and envisage and plan how these might be improved by providing a “map” of possibilities for teamworking.
However, “the map is not the territory”, and therefore the methodology should be regarded more as a heuristic devise than an algorithm for optimising organisational design. It is aimed at encouraging managers to reflect on what they are trying to achieve through their teamworked organisational designs and how different configurations suit some manufacturing purposes better than others. Out of this process managers are able to see the strengths and limitations of their existing approaches and be more discriminating in evaluating the various approaches available in the market, and can plan changes that need to be put in place to better align the configuration of teamworking in their factory with the strategic purposes and needs of the various parts of the manufacturing process.

Methodologies for introducing such changes all incorporate in some format the questions:

- Where are now?
- Where do we want to get to?
- How do we get there?

In designing such a methodology a key issue is to decide where the main motivation and energy for change resides. Does it emanate from dissatisfaction with the current situation, or does it result from the attraction of future possibilities? Most methodologies seek to capitalise on both sources of motivation. Audit tools are used to generate dissatisfaction by benchmarking existing performance and practices against either best practice or some idealised model. Awareness of gaps or shortfalls becomes the energiser for change in defining what needs to be done. The alternative strategy of developing and articulating a vision of the future relies on the attractiveness of the envisaged future both to energise its enactment and to enable the current state to be “given up”. It is important in designing a methodology to decide what comes first. If most of the motivation to change is likely to come from dissatisfaction with the present then audit should precede vision; on the other hand, if the attractiveness of an alternative future is likely to be the motivator then vice versa.

Most manufacturing managers who have been exposed to the “map” of teamworking incorporating the “self-directed”, “lean” and “project” models report experiencing it as “paradigm shift” in their thinking about teamworking. Once having heard about it, their thinking and understanding of their prior experience of teamworking is “transformed”. They talk about the three archetypes map as “revelatory” insofar as it illuminates areas of their teamworking practice, in particular how different parts of the manufacturing process with different imperatives require different approaches. Typically, this has generated high levels of energy and motivation with groups of managers wanting to proceed immediately to redesign the teamworking arrangements. In terms of the change model described above, the teamworking map appears to have considerable potential for generating visions of future teamworking configurations. On this basis the methodology has been designed to be “vision driven” rather than “audit led”. Whilst we believe both are required, in this case we are clear that the vision will provide the main motivation to change with the audit revealing the potential brakes on achieving it.

Deciding the methodology should be “vision driven” resulted in most emphasis being placed on designing processes to enable participants to explore and elaborate the meaning and potential of the approaches to teamworking identified in SDT. To do this the methodology was designed in four steps:

1. Pre-diagnosis and audit.
2. Workshop 1: Awareness raising and conceptual design.
3. Consolidation and data gathering.
4. Workshop 2: Detailed design and action planning.

6.1. Stage one – orientation and audit

The aims and benefits of conducting an audit of the existing organisation are to surface and make explicit the taken-for-granted assumptions to the facilitating consultants, and later, in the two workshops to “… generate managerial debate about the cultural barriers to change that exist” [64]. In this way the audit takes the form of an interactive device and acts as a change tool. We propose the

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1 Over 300 manufacturing managers have been involved in the validation of the models resulting from this research.
data collection include elements of artefact, values/beliefs and taken-for-granted assumptions. The aim of the audit is to ascertain the history and current status of teamworking in the company, to identify its position on the path between traditional and New Wave organisational forms, and to discover which combination of the archetypes would be most appropriate. The audit is based on data from interviews which explore critical incidents in the company’s history and the values and beliefs of its members with regard to teamworking; observation of organisational artefacts, structures and processes; and questionnaires involving point allocation and choice between archetypes. The audit is undertaken by external facilitators and provides background information for Workshop One, which is the key driver for change.

6.2. Stage two – Workshop One – conceptual design of teamworked organisation

The first stage of this workshop is educational in that it familiarises participants with the archetypal teamworking map. Specifically, this involves a presentation of the archetype and team types, linking each to different types of outcomes, and tight coupling the purposes for adopting teamworking to various team forms and the infrastructures required to support them. The journey to the “New Wave” team-based organisation is often one of radical change from one paradigm to another. It involves a fundamental shift in the cognitive structure [65] and behavioural patterns of managers and employees. Managers may be stuck in paradigm thinking and require input to help them see the options open to them. Radical change can only be made when alternative templates are articulated, which allow them to shift the perspective through which they view the event [27,66,67]. Through the use of theoretical models, combined with “real” and “ideal-type” case-study illustrations, managers are provided with a framework for understanding their organisation and options upon which they can make informed choices. The move to teamworking is a journey within a strategic context. It is that context which provides not only the reason for implementing teamworking but also needs to dictate the specific form it will take. Where teamworking is not tightly coupled to the business strategy, implementation will falter, for it will be difficult to get high-level endorsement and support for the whole system changes that will be necessary to make a coherent teamworked design function effectively. Further, the resources for implementation may be limited. Therefore, for specification and implementation to be successful, it is necessary to ensure that strategic intentions have been established by the organisation, and are understood in sufficient detail to be able to inform the teamworking debate. This tight coupling of proposed organisational configuration to strategy is developed as a dominating theme in Workshop One in producing an agreed conceptual design.

In the latter part of Workshop One, the participants use the three SDT models to produce an idealised view of the teamworking requirement. This involves analysing the manufacturing organisation into its appropriate teams and identifying which forms of teamworking are best suited to specific situations.

6.3. Stage three – consolidation

The participants are provided with a summary of the output from Workshop One together with a written document (an edupac), which provides them with more information on the archetypes. They are asked to reflect on the output produced in Workshop One, and to consider what will need to change in order to bring about an ideal team-based design.

6.4. Stage four – Workshop Two

Detailed data gathered in the audit and orientation phase is provided to allow the participants to compare the current teamworking configuration with the ideal view developed in Workshop One. In particular, it highlights differences between what is in place and what is required in terms of team forms, and evaluates whether or not infrastructural systems and processes are compatible with supporting the required forms of teamworking. In the last phase of Workshop Two, the methodology develops a change agenda and plans to develop the
required form of teamworking and support structures. This phase prioritises change in terms of feasibility and expected benefits.

The aim of the SDT methodology is to achieve a coherent organisational whole to deliver the established strategic purpose, by aligning an appropriate organisational form for its achievement [68,69].

7. Conclusions

Although popular, teamworking often is proving problematic in implementation. Our work in a variety of experienced companies suggests this is because many organisations are failing to contextualise the archetypal self-directed model to suit their specific task environment, and hence to link teamworking specifically to their wider strategic agenda. The teamworking models developed as part of this research provide a variety of forms designed to be used within the SDT methodology to impact on the interpretive schema of managers, thus enabling them to envision and purposefully prescribe formats, designs and the paths they choose to follow. The development of the SDT methodology to facilitate this process surfaces taken-for-granted assumptions and encourages more open debate. It also facilitates a specification of the necessary, detailed changes required within the social system to support the required changes.

References


