HOW TO GET THE MATRIX ORGANIZATION TO WORK

RICHARD M. BURTON • BØRGE OBEL • DORTHE DØJBAK HÅKONSSON

Abstract: Many organizations, both public and private, are changing their structure to a complex matrix in order to meet the growing complexity in the world in which they operate. Often, those organizations struggle to obtain the benefits of a matrix organization. In this article, we discuss how to get a matrix to work, taking a multi-contingency perspective. We translate the matrix concept for designers and managers who are considering a matrix organization and argue that three factors are critical for its success: (1) *Strong purpose*: Only choose the matrix structure if there are strong reasons for doing so, (2) *Alignment among contingencies*: A matrix can only be successful if key contingencies are aligned with the matrix's purpose, and (3) *Management of junctions*: The success of a matrix depends on how well activities at the junctions of the matrix are managed.

Keywords: Matrix organization, matrix structure, contingency theory, organization design, junctions

More and more organizations are changing their organizational structure to a matrix, or structures that have matrix elements, and this is expected to continue in the future (Galbraith, 2012). Microsoft, for example, is changing from a divisional structure to a matrix structure. Microsoft introduced the matrix to integrate its product platforms so that Microsoft services and the new Windows 10 can run across all platforms (Burton, Obel, & Håkonsson, 2015). Within healthcare, many hospitals are changing from a traditional functional organization based on medical specialties to a more patient-centered matrix organization (Axelsson et al., 2014). Because of changes in Danish municipalities in 2007, Medtronic found that hospitals were no longer its customer. Purchasing moved to regional purchasing offices. The regional purchasing offices bought supplies for all hospitals and disciplines within a region, creating a mismatch with Medtronic's business unit organization. This forced Medtronic to change its country structure to a matrix-like cross-functional structure to fit the new environment.

An increase in environmental complexity and uncertainty drives the need for the matrix and its complexity. The introduction of a matrix structure thus follows the Law of Requisite Variety (Ashby, 1956): complexity in the environment must be matched with complexity in the organization's design. Matrix organizations are usually chosen for strategic reasons, but the matrix strongly affects individuals and teams working in the matrix, as information flow and decision-making are different in a matrix configuration compared to a traditional hierarchical organization. Many organizations that have moved to a matrix structure have found that they were not able to obtain the benefits anticipated from the matrix structure (Malloy, 2012). Ford and Randolph (1992: 290), in their review article on matrix organizations, concluded: "An organization simply cannot plug a matrix into its existing structure and expect success. Matrix structures should be uniquely developed for a particular application in a particular organization…There is also evidence to suggest that there are contingencies based on the structural, system, behavioral and cultural context of the organization in general and the matrix structures in particular, which have positive and negative influences on the effectiveness of the cross-functional structure."

In this article, we examine the benefits and challenges of designing and managing a matrix organization, using the multi-contingency theory of organizational design as our analytical framework (Burton et al., 2015). We discuss three factors that are critical to matrix success:

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(1) having strong reasons for choosing a matrix structure, (2) aligning key contingencies with the matrix and its purpose, and (3) carefully managing the junctions at which dimensions of the matrix come together.

MATRIX CONFIGURATION

The basic matrix configuration is a cross-functional organization with product/service/customer and functional dimensions. There is a functional hierarchy and a divisional/project hierarchy for the same organization (see Figure 1). The matrix configuration has many two-dimensional names in practice: function and product, function and project, specialty and customer, product and customer, product and region or country, technology and product – to name a few. There are three-dimensional matrices, as many multinational firms have function, product, and country or regional dimensions. Procter & Gamble has a four-dimensional matrix of global functions, global business units, regional products, and global customers (Galbraith, 2008).

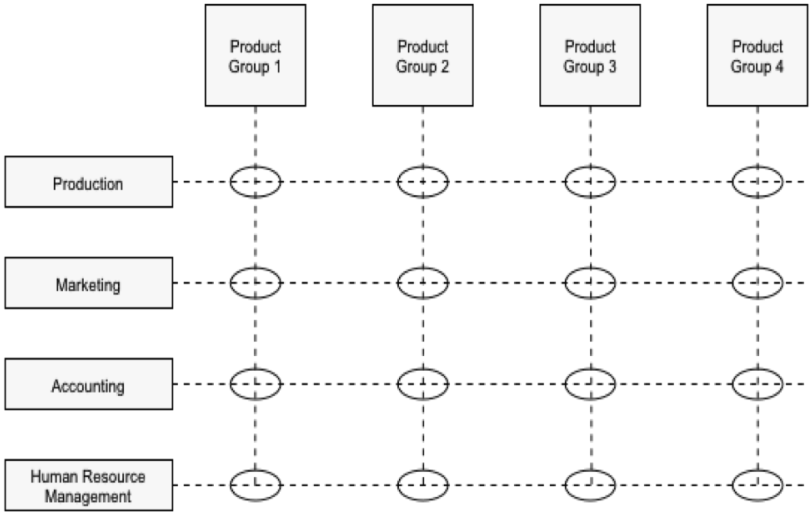

Fig. 1. The Matrix Configuration (Source: Burton, Obel, & Håkonsson, 2015)

A three-dimensional or international matrix organization has been called a transnational organization (Bartlett & Ghoshal, 1998), suggesting that there has to be a balance among all the dimensions of a matrix. Unilever, Procter & Gamble, and NEC are examples of companies that have adopted transnational designs (Bartlett & Ghoshal, 1998). Consider the detergent business within Unilever. Research and product development activities are located based on optimal sourcing. Basic research facilities are located in the U.S. and Europe, in centers close to universities or where there are many chemists and chemical engineers. Product development groups, on the other hand, are located close to the business units they serve, wherever that may be in the world. There are manufacturing facilities in Asia and Latin America, where natural resources are available and labor costs are relatively low, but sales, distribution, and service operations are localized, in some cases by country or even a region within a country, to respond to the needs of particular customer groups.

How many dimensions can a matrix have? IBM has a six-dimensional matrix which seems to work successfully (Galbraith, 2008). The big Swedish-Swiss multinational firm ABB at one time had a matrix configuration where there were over 100 separate SBUs along one dimension. ABB used an additional middle level of management in the matrix to support the complexity of the interdependencies that had to be coordinated. Still, the ABB matrix was too complex to manage and was eventually dismantled and replaced with a simpler configuration. It is easy to see that the number of junctions in a matrix grows non-linearly with the number of products and functions. So, in ABB's case, the limit was reached.

The matrix configuration requires simultaneous coordination of the functional specialties across the projects, products, services, and/or customers in the firm's domain (see the circled junction points in Figure 1). Contrary to a divisional organization and to some extent the

functional organization, everything is connected in a matrix organization. A matrix can be flexible, processing new information and adjusting to new situations quickly in order to utilize limited resources to meet firm priorities. A matrix can also transmit best practices from one division to another through the functional junction. In general, a matrix organization can handle much more information than other organizational configurations. The advantage is that the matrix can realize both the efficiency of the functional form and the effectiveness of the divisional form.

When a matrix organization works well, both efficiency and effectiveness result. However, when the matrix is not well set up or managed, it can be neither efficient nor effective. The main challenges of managing a matrix include reconciling conflicts between the lateral and vertical subunits, information overload, excessive planning and resource allocation meetings, and decision delay (Galbraith, 2008). The matrix configuration requires managerial skills that include a focus on the entire firm as well as one's own function or division, the acceptance of uncertain environments, and the willingness to consider complicated tradeoffs and negotiate realistic solutions with a focus on results. These benefits must exceed the additional costs of control and coordination if the matrix is to be justified as an alternative to the functional or divisional configurations.

For individuals and teams, many things are challenging at the cross-functional junction points: too much information or lack of correct information; heavy workloads; conflicting goals and superiors; time orientation differences; incentives incompatibility; and so on. Additionally, if a problem occurs at any junction point, it has the potential to spread throughout the organization. When there is a change in the timing of an activity at a junction, it may ripple across multiple functions and product groups – called the "jello effect" (Burton et al., 2015: 83).

NEED FOR A STRONG PURPOSE

The matrix organization is complex, costly, and difficult to manage. One should choose the matrix only if there is a strong need for and potential benefit from such an organizational arrangement (Davis & Lawrence, 1977; Ford & Randolph, 1992). Following the multi-contingency model of Burton et al. (2015), the main reasons for implementing a matrix organization involve the organization's goals, strategy, and environment.

With a dual goal of focusing on both efficiency and effectiveness, the matrix configuration is an appropriate choice. In most cases, efficiency and effectiveness are needed when the environment is unpredictable and complex. In a turbulent and complex environment, the ability to both explore new things and exploit current resources and capabilities is important (March, 1991). Some firms are good at being quick followers by observing what other firms do successfully and then moving quickly to do the same (or something very similar). Exploration may go beyond just looking at what others do, and instead involves surveying technologies and markets more widely to identify opportunities that can be developed into new products and services. Some firms have a market-driven approach to innovation as they look at market or customer needs and then try to innovate to meet those needs. They may limit themselves to markets they know well, or they may look for new markets. Other firms take a technology-driven strategy in which they invest in promising technologies in order to capitalize on radically new products. With a matrix organization, you can combine the two strategic approaches. To have a dual focus on defending your firm's position in its markets while at the same time innovating with new products and services is a difficult balance requiring organizational capability and managerial expertise.

One significant environmental driver for a matrix organization is when internal silos become an obstacle to deal with environmental change and complexity. The cases of Microsoft and Medtronic mentioned above are good examples. For both Medtronic and Microsoft, the purpose of the matrix has to pervade the organization. The idea of Windows 10 has to be known to the sales and marketing people, to the development group, and to all management levels. If it is just a management exercise, it will not work. In hospitals moving to a patient-centered organization, a matrix is often the solution. If nurses and doctors still think that they are working within a narrow specialty, however, the benefits of the matrix do not come through

– just the costs (Moellekaer et al., 2014). Burton et al. (2015) describe the case of Aarhus University. It changed from a divisional structure to a matrix structure with the purpose of strengthening interdisciplinary teaching and research, using a top-down decision process. The purpose of the matrix met the demands of the environment, but its potential benefits were not adequately explained below the level of the deans. There was some success with respect to interdisciplinary research, but the idea of interdisciplinary teaching programs never took off, mainly because the old disciplinary silos were too dominant. Aarhus University has now returned to its previous divisional structure.

A strong purpose is a necessary condition for the success of a matrix configuration. The benefits of enhanced coordination must outweigh the extra costs of additional skilled managers in a more complex set of organizational contingencies.

ALIGNMENT AMONG CONTINGENCIES

Multi-contingency theory states that to obtain a well-functioning organization design, there has to be an alignment or fit among 13 contingencies (Burton et al., 2015). Earlier, Håkonsson et al. (2012) found that fit is more important in uncertain environments than in stable environments. A matrix organization is needed only if the environment is uncertain. Thus, once a matrix configuration is chosen there are a number of design elements specified in the multi-contingency model that have to be aligned with the matrix (Burton et al., 2015). A successful matrix goes beyond the configuration itself: the matrix requires its own leadership, culture, knowledge sharing, information technology, and incentives. We discuss those alignments below.

In designing a matrix structure, you create close inter-relationships among the activities in the organization. You must invest in ways to coordinate work among repetitive tasks and at the same time support the non-repetitive work of other tasks. We call this workflow "knotty" (Burton et al., 2015). Knotty task design requires a focus on divisibility and repetitiveness. This approach to task design encourages those responsible for subtasks to develop innovative ways to do their work, accommodating the unique demands of each customer, while at the same time integrating their work with other units in the firm, often following overall organizational standards. Knotty tasks are likely to lead to the greatest customer satisfaction since production is customized as well as being efficient due to overall company use of best practices. However, a knotty task design is the most demanding type of workflow to manage. Given a non-repetitive approach to some tasks, the information-processing demands increase greatly. To bring those demands to a manageable level, repetitive tasks have to be routinized.

The matrix organization requires "producer" leaders (Burton et al., 2015), individuals who are able to delegate and who have a tolerance for uncertainty. Top management cannot direct the entire organization and must rely heavily upon the functional and divisional managers in the matrix for detailed, ongoing coordination adjustments in order to meet the firm's priorities. Yet, the top executives must set priorities, resolve differences among the subunits, and generally oversee the firm. Hence, effective management of a matrix requires that managers can manage around at least two dimensions simultaneously. Top management needs to know what is going on and assign work to others, but it does not need to make every decision the organization confronts. The matrix organization has both a "high-tension" and "high-readiness to change" climate that we call a "rational goal climate" (Burton et al., 2015). In a high-tension climate, employees must have adequate resources to deal with change, and their attitude must be open to change. Individuals are a bit on edge as tension is high, but it cannot be allowed to become so high that it becomes detrimental to performance. In fact, tension helps to drive performance as people deal with fluctuations in trust and conflict. People are willing to change and accept new challenges and opportunities if they believe goals can be met. They need to know and understand the purpose of the matrix organization. The rational goal climate is a very competitive environment to work in. It is also to be expected that individuals who do not like such a competitive climate will choose to leave the matrix (Burton et al., 2015). With high-readiness to change, reorganization of personnel can be expected, with tough competition for matrix jobs. The organization must work hard to keep people who are skilled at operating in a matrix.

Knowledge development and sharing is a key contingency in the matrix structure. Interpersonal relationships are critical to knowledge sharing in a matrix. A "relationship-driven" approach to information and knowledge systems design emphasizes capture, processing, and transfer of data that is embedded in the links, or relationships, between people and data. Relationship-driven systems integrate hard (codifiable) data with soft (interpretational) data to yield rich results for organizational decision-making. A relationship-driven knowledge management system would be nearly impossible to create without the use of modern information technology. Information technology is used to link units in multiple directions, not just vertically or horizontally (Boudreau et al., 1998). In this way, the relationship-driven system does not get out of control, creating information overload. Instead, ties are formed and managed intelligently, putting knowledge exchange when and where it is needed (Hansen & Nohria, 2004; Vestring, Rouse, & Rovit, 2004). One well-developed relationship-driven system is called customer relationship management (CRM). CRM systems capture large amounts of quantifiable data about customers but also provide interactive capabilities so that two salespeople, for example, can exchange unstructured observations or comments about their experiences and implications for meeting new customer needs. Videoconferences in which physicians can talk to one another at a distance while both view and interact with a patient's MRI or CT images, is another example of relationship-driven systems. Physicians may add comments or suggestions to the medical record that are then visible, along with the more quantifiable data, later on in the patient-care process.

Profit or gain sharing has to be a significant part of an incentive system in a matrix organization. Profit/gain sharing is group-based, either among a group of individuals or a collection of subunits (Park, Appelbaum, & Kruse, 2010). The basic idea is that people are rewarded on the basis of effective collaboration with others to yield high performance by the group. Profit/gain sharing gives a share in the gains or profits (revenue less costs) to all members of the unit. To estimate the gain, the organization's performance is compared to a budgeted performance. Employees will earn a bonus if there is a gain. Measures are typically based on operational measures (e.g., productivity, spending, quality, customer service). The idea behind a profit-sharing incentive system is that it should enhance group performance in a developmental mode where it is not possible to anticipate or control the actual outcome by controlling behavior. For a gain-sharing scheme to work, people should feel that individual performance can make a difference for the group outcome. The task itself must depend upon the joint efforts of everyone in the target group.

The smaller the target group, the more likely the gain-sharing scheme will have the anticipated effect. If the firm is large, then profit sharing based on the total outcome of the organization is less likely to be effective, since individuals cannot see the effect of their efforts on the organization's performance. A free rider problem can result, with some people relying on the skills and effectiveness of others to carry the group to success. On the other hand, the profit/gain sharing approach can be very effective if people believe their contributions to group efforts "matter," so they are committed to working together with colleagues, and they view the incentive scheme to be fair. Continental Airlines in 1995 introduced a bonus-based incentive plan for all of its 35,000 employees if the company met its overall company goal. The incentive plan, despite the potential free rider issue, did increase individual and company performance (Knez & Simester, 2001). Many matrix organizations fail because the incentive system does not support the complexity of the matrix. In a survey of 279 members of six large companies, Sy, Beach, and D'Annunzio (2005) found that the top five problems in the matrix structure were: (1) misaligned goals, (2) unclear roles and responsibilities, (3) ambiguous authority, (4) lack of a matrix guardian, and (5) silo-focused employees – all of which relates to how employees and managers are evaluated.

MANAGEMENT OF JUNCTIONS

A junction is the intersection of a row and a column (see Figure 1). In the matrix design, we create the junctions; at each junction we manage the detailed matrix processes. As discussed above, the design of the functional and project/product dimensions are driven by the purpose and the potential benefits. At each junction, the individual sees both the product dimension

and the functional dimension. The product dimension focuses on the effectiveness of getting a high-quality product or service to the consumer or client; the functional dimension focuses on the efficiency of using the firm's resources. As we argued above, the matrix challenge is to manage both dimensions simultaneously to obtain both effectiveness and efficiency in a timely fashion.

In the daily life of a matrix organization, it is "what is happening" at the junction points that will make or break the organization. At a junction point, the individual experiences multiple bosses, conflicting goals, and work overload. But, it is also at the junction points that the benefits of the matrix are realized in terms of efficiency and effectiveness (Levinthal & Workiewicz, 2015). The idea is that the matrix should have higher information-processing capacity and easier ways to share information. Figure 1 illustrates how that may work. If in one product or production group a best practice is realized, then there is a communication path from that product group to the production function. If the production function works well, that will enable the best practice to be used in all product groups. The best practice is transferred through the junction point between one product group to production and then from there to all the junction points between production and the other product groups. If the best practice is implemented as a standard across the product groups, it is easier to monitor activities, training will become more efficient, and re-allocation of individuals from one product group to another will be easier and less stressful.

What are the conditions for success? First, the best practice should be communicated to production. The specific communication channel has to exist. It could be done by setting up meetings between the production people working in the various product groups. It could be face-to- face or via IT-systems that enable and facilitate the transfer of knowledge. However, there must be a willingness to transfer the knowledge. Transfers take time and incur costs. The transfer may make the other product groups better, and if resources are allocated to the product groups based on their performance, the willingness to share knowledge may be low. Such situations may bring the individuals working at the junction point into a conflict where the two bosses that the individual reports to have different goals and incentives, thus demanding different responses. At each junction point, it should be clear who makes which decisions.

The incentive system should support the activities at the junction points. At the junction, the incentives affect the trade offs between effectiveness and efficiency and how to handle variations. The functional manager has incentives to be efficient, explicitly keeping costs within budget and keeping to plans and schedules. The product manager has effectiveness incentives to deliver high-quality products or services to a customer or client, on time. Time affects the efficiency-effectiveness trade off, where the functional manager is more sensitive to "get things done quickly" and the product manager is more concerned with "getting things right" rather than just getting them done. Realizing the information in a timely fashion permits the manager to alert others that a variation from the plan has occurred; this is a first level of information. Second, alerting others to the magnitude of the variation and its effect on others requires much more information and an understanding of not only the variation at the junction, but its cascading effect throughout the firm. Managers at the junction can be reluctant to sound the alarm of a variation in a timely fashion, which can be a costly error. The opportunity losses from poor coordination across functions and products can be large as deadlines are missed not only within the matrix but also for customers and clients (the jello effect). Some variations will not ripple beyond the junction itself; at the other extreme, some variations will affect all junction points (i.e., the whole matrix and beyond). Of course, most variations will fall between these two extremes: the greater the connectedness, the greater the required coordination, and the greater the jello effect.

The matrix managers at the junction want both effectiveness and efficiency but are caught in the middle of this potential conflict. The resolution of such conflict involves more than time and cost and includes skills in negotiation and managing emotions (Håkonsson et al., 2008). If conflict management requires regular involvement by top executives, a major advantage of the matrix has been lost. The telltale signs of a matrix in trouble are overload of decisions at the top as the managers are not able to solve problems; problems are not dealt with at all and opportunities are lost; budgets are exceeded; operations are not coordinated;

resource utilization is lost or inefficient; employees are unhappy and confused; subunits are spending excessive time on coordinating with other subunits to the detriment of subunit performance; and opportunities are lost. Taken together, decision-making can be difficult to realize – particularly in a timely fashion – resulting in opportunity losses in implementation (Nissen, 2014; Nissen & Burton, 2011).

There are various strategies for the matrix manager to mediate a solution that is acceptable to both the functional and product manager, but not preferred by either one. One approach is to appeal to higher-level goals which both can support (e.g., the total firm and its profits). Here, the functional manager must be reminded that poor quality is not in the firm's interest; the product manager needs to understand that the higher costs compromise profits. Even with these understandings, the functional and product managers may not agree on the solution.

Besides the incentives and the negotiation process, the firm's climate is not a zero-sum climate where individuals either win or lose on every issue every time. Yet, as discussed earlier, this climate incorporates some tension and readiness to change as a norm. The matrix manager has the challenge of using the tension for the good of the firm where the readiness to change is an asset. That is, the variation with a readiness for change can provide a platform for larger needed change than just solving the problem of the moment. Another approach is to develop an incentive system that does not generate conflict and require compromise. Appelbaum, Nadeau, and Cyr (2008a,b; 2009) found that "employee and management buy in and support of an evaluation system and its goals are crucial to the success of the program."

The matrix manager at the junction requires leadership skills in dealing with uncertainty and ambiguity, sorting out and quickly understanding large-scale data and its implications for decision-making, understanding the bigger picture to enhance total firm profits, negotiating among individuals who have different incentives, understanding the organizational culture, and managing emotions.

CONCLUSION

The matrix can be an efficient and effective configuration, but it should only be used if there is a strong purpose and that purpose can penetrate the whole organization. A matrix can only be successful if a number of important contingencies – climate, leadership, knowledge sharing, information technology, incentives, etc. – are correctly designed and aligned with one another. At the junction level, the success of a matrix depends how you design and manage the activities at the many junction points in the matrix organization. A detailed design of the decision-making process at each junction point is required for a successful matrix organization.

A critical part of making a matrix organization work is that the individuals and teams who work in the matrix understand why a matrix organization was selected. Individuals implement, manage, and run the matrix. If they do not understand the reason for choosing the matrix, they do not have the rationale to deal with conflicting goals, conflicting bosses, time orientation differences, incentives incompatibility, and so on. To manage junction points in a matrix requires a strong understanding and acceptance of the purpose of the matrix by everyone.

REFERENCES

Appelbaum SH, Nadeau D, Cyr M. 2008a. Performance evaluation in a matrix organization: a case study (Part One). *Industrial and Commercial Training* 40(5): 236-241.

Appelbaum SH, Nadeau D, Cyr M. 2008b. Performance evaluation in a matrix organization: a case study (Part Two). *Industrial and Commercial Training* 40(6): 295-299.

Appelbaum SH, Nadeau D, Cyr M. 2009. Performance evaluation in a matrix organization: a case study (Part Three). *Industrial and Commercial Training* 41(1): 9-14.

Ashby WR. 1956. *Introduction to Cybernetics*. Chapman & Hall, London, UK.

Axelsson R, Axelsson SB, Gustafsson J, Seemann J. 2014. Organizing integrated care in a university hospital: application of a conceptual framework. *International Journal of Integrated Care* 14: 1-9.

Bartlett CA, Ghoshal S. 1998. *Managing Across Borders: The Transnational Solution* (Vol.

2): Taylor & Francis, London, UK.
Boudreau M-C, Loch KD, Robey D, Straud D. 1998. Going global: Using information technology to advance the competitiveness of the virtual transnational organization. *Academy of Management Executive* 12(4): 120-128.
Burton RM, Obel B, Håkonsson DD. 2015. *Organizational Design: A Step-by-Btep Approach*. Cambridge University Press, Cambridge, UK.
Davis SM, Lawrence PR. 1977. *Matrix*. Addison-Wesley, Reading, MA.
Ford RC, Randolph WA. 1992. Cross-functional structures: A review and integration of matrix organization and project management. *Journal of Management* 18(2): 267-294.
Galbraith JR. 2008. *Designing Matrix Organizations that Actually Work: How IBM, Proctor & Gamble and Others Design for Success*. Jossey-Bass, San Francisco, CA.
Galbraith JR. 2012. The future of organization design. *Journal of Organization Design* 1(1): 3-6.
Håkonsson DD, Burton RM, Obel B, Lauridsen,J. 2008. How failure to align organizational climate and leadership style affects performance. *Management Decision* 46(3): 406-432.
Håkonsson DD, Burton RM., Obel B, Lauridsen JT. 2012. Strategy implementation requires the right executive style: Evidence from Danish SMEs. *Long Range Planning* 45(2): 182-208.
Hansen MT, Nohria N. 2004. How to build collaborative advantage. *MIT Sloan Management Review* 46(1): 22-30.
Knez M, Simester D. 2001. Firm-wide incentives and mutual monitoring at Continental Airlines. *Journal of Labor Economics* 19(4): 743-772.
Levinthal D, Workiewicz M. 2015. Are Two Heads Better than One: The Multi-Authority Form and Organizational Adaptation. Available at: SSRN 2630088.
Malloy R. 2012. Managing effectively in a matrix. *Harvard Business Review*, August 10, https://hbr.org/2012/08/become-a-stronger-matrix-leade
March JG. 1991. Exploration and exploitation in organizational learning. *Organization Science* 2(1): 71-87.
Moellekaer A, Pedersen ID, Kirkegaard H., Dissing Sørensen P., Eskildsen JK, Obel B. 2014. Organisationsdesign af de fælles akutmodtagelser. *Fremtidens Hospital* (pp. 251-266.). Copenhagen: Munksgaard.
Nissen ME. 2014. Organization design for dynamic fit: A review and projection. *Journal of Organization Design* 3(2): 30-42.
Nissen ME, Burton RM. 2011. Designing organizations for dynamic fit: System stability, maneuverability, and opportunity loss. *Systems, Man and Cybernetics, Part A: Systems and Humans, IEEE Transactions* 41(3): 418-433.
Park R, Appelbaum E, Kruse D. 2010. Employee involvement and group incentives in manufacturing companies: a multi-level analysis. *Human Resource Management Journal* 20(3): 227-243.
Sy T, Beach L, D'Annunzio L. 2005. Challenges and strategies of matrix organizations. *Human Resource Planning* 28(1): 39-48.
Vestring T, Rouse T, Rovit S. 2004. Integrate where it matters. *MIT Sloan Management Review* 46(1): 15.

RICHARD M. BURTON

Professor Emeritus
Duke University
E-mail: rmb2@duke.edu

BØRGE OBEL

Professor
Aarhus University
E-mail: bo@icoa.au.dk

DORTHE DØJBAK HÅKONSSON

Professor
Aarhus University
E-mail: dod@icoa.au.dk