ORGANIZATION DESIGN FOR DYNAMIC FIT

A REVIEW AND PROJECTION

MARK NISSEN

Abstract: The concept of fit is central to organization design. In the organizational literature, fit historically has been portrayed as a static concept. Both organizations and their environments, however, are continually changing, so a valid concept of fit needs to reflect organizational dynamics. In this article, I analyze various theoretical perspectives and studies that relate to organizational fit, differentiating those that employ an equilibrating or a fluxing approach. Four substantive themes emerge from this analysis: design orientation, design tension, designer/manager roles, and measurement and validation. Implications of each of these themes for dynamic fit are derived, and promising future research directions are discussed.

Keywords: Organization design, organizational fit, dynamic fit, organizational alignment, misfit

Fit has long been an important concept in the organization design literature. When an organization and its environment are aligned, organizational performance is strong. Today's organizations and environments seem to be changing more and faster than ever, but the concept of fit – its definition and measurement – has not kept pace. This article seeks to develop a concept of dynamic fit by reviewing major theoretical perspectives in the organizational literature and deriving their implications for continuous organization design and redesign.

THE CURRENT FIT FRAMEWORK

The concept of fit is central to the field of organization design (Venkatraman, 1989). Fit exists when organizational performance is positively affected by the alignment of key organizational and environmental contingencies (Donaldson, 2001). Internal fit refers to the alignment of organizational strategy, structure, and process while external fit refers to the alignment of the organization with its environment (Miles & Snow, 1984). When a misfit occurs, either internally or externally, organizational performance is negatively affected (Donaldson, 1987). Historically, the concept of fit has been portrayed as static, suggesting that it is an end-state for the organization to achieve rather than an ongoing process to be continually managed (Burton, Lauridsen, & Obel, 2002; Zajac, Kraatz, & Bresser, 2000). The static view of fit, however, is incommensurate with the fundamentally dynamic nature of organizations, their environments, and other contingencies (Sinha & Van de Ven, 2005).

Early research utilizing the fit concept was conducted using a contingency approach. Structural contingency theory, for example, was originally based on a fit between organizational structure and production technology (Woodward, 1965). Later, organizational performance was shown to be associated with a fit between structure and environmental uncertainty (Lawrence & Lorsch, 1967). More recently, Burton, DeSanctis, and Obel (2006) identified a set of 14 contingency factors (goals, strategies, environments, etc.) that an organization must address in an integrated manner, and they explain how the specific contingency set a given organization faces can be expected to change over time. Thus, the current theoretical framework utilizing the concept of fit is the multi-contingency perspective

Journal of Organization Design
JOD, 3(2): 30-42 (2014)
DOI: 10.7146/jod.8196

in which multiple internal and external contingencies must be aligned in order to achieve strong organizational performance.

DYNAMIC ORGANIZATION DESIGN APPROACHES

In order to develop fit as a dynamic concept, I analyze the theoretical perspectives and studies in the organizational literature that provide insight into dynamic organization design. Building in part upon my prior research (Alberts & Nissen, 2009; Nissen & Burton, 2011; Nissen & Leweling, 2008), I divide this literature into two broad orientations towards design: *equilibrating* and *fluxing*.[1] An equilibrating orientation seeks to achieve and maintain fit through episodic sequences of static organization (re)designs, whereas a fluxing orientation allows designs to change continuously with changing contingencies.

Equilibrating Orientations

Most approaches to organization design have an equilibrating orientation. As such, the organization is (re)designed to fit its multiple contingencies and then left in that configuration until enough misfits accumulate to warrant re-equilibration through subsequent redesign. The (re)design is accomplished as a nonroutine, sometimes disruptive activity (Boudreau, 2004; Burton et al., 1998), usually performed by high-level managers (Mintzberg, 1979). This orientation is pragmatic and focuses on the relative costs of misfit more than those associated with the (re)design activity – that is, content costs are emphasized over process costs (Håkonsson, Klaas, & Carroll, 2013). Hence the equilibrating orientation to dynamic organization design centers on a series of static adjustments over time.

Population ecology (Hannan & Carroll, 1995; Hannan & Freeman, 1977) represents one extreme among equilibrating organization design approaches.[2] (See Table 1 for a summary of the various equilibrating approaches.) Proponents argue that some organizational populations are inherently better suited for certain ecologies (environments) than others. Forces of adaptation – variation, selection, retention – work to preserve the populations exhibiting better fit and hence to alter the composition of ecologies over time (with some populations destined to survive and others destined to fail). According to the ecological view, the dynamics of fit are deemed to manifest themselves via interactions between populations and their ecologies, over long periods of time, and are largely insulated from management influence – that is, most managers in poor-fitting organizations are destined to see their organizations fail whereas managers in well-fitting organizations are destined to see theirs succeed. This passive perspective includes negligible opportunity for organizational redesign, even when misfits accumulate to the point of individual organizational failure.

Alternatively, most proponents of contingency fit maintain a teleologic view (Burns & Stalker, 1961; Klaas, Lauridsen, & Håkonsson, 2006; Van de Ven & Poole, 1995). They see managers in pursuit of goals, taking action to adjust organizational structure in order to establish or re-establish fit. For instance, Burns and Stalker (1961) suggest that organizations in misfit are expected to modify their structures to move into fit with their environments or other contingencies. This is an argument for deliberate organizational change (i.e., via management intervention), which suggests equilibrating organization redesign in response to exogenous shifts that cause an organization to fall out of fit. Fit remains a static concept in the contingency perspective.

Similarly, set largely within a technological context, the punctuated equilibrium approach (Eldredge & Gould, 1972; Gersick, 1991; Romanelli & Tushman, 1994; Sabherwal, Hirschheim, & Goles, 2001) indicates that most organizational transformations take place via discontinuous, management-induced change. Fit may persist over long periods of time

1 This division is a broad heuristic rather than a rigid classification system. Most organization design approaches reflect varying aspects of both equilibrating and fluxing orientations, but the distinction helps to organize the discussion.

2 One could argue that population ecology does not represent organization design at all (e.g., it is a non-teleologic approach). Although the approach is passive and evolutionary, an implicit "design" can be inferred nonetheless, and fitness plays an important role in contingent organizational success. I include it here as an extreme, passive approach that does not consider redesign even when misfits accumulate to the point of organizational failure. Equilibration takes place, external to any individual organization, at the population level.

until equilibrium is punctuated by a significant disruption that initiates organizational change (Zhao & Liu, 2010; Zhao, Liu, Yang, & Sadiq, 2009).

Table 1. Equilibrating Approaches to Dynamic Organization Design

Research Stream	Proponents	Concepts	Assumptions	Limitations
Population Ecology	Hannan & Freeman (1977), Hannan & Carroll (1995), McKelvey (1982)	Organizational populations, ecology, adaptation	Some organizations inherently meant to succeed	Negligible opportunity for redesign
Contingency Theory	Burns & Stalker (1961), Klaas et al. (2006), Van de Ven & Poole (1995)	Teleologic view Management role in change	Organizations are goal-oriented Endogenous organizational change	Static concept of fit
Punctuated Equilibrium	Eldredge & Gould (1972), Gersick (1991), Romanelli & Tushman (1994), Peteraf & Reed (2007), Sabherwal et al. (2001)	Punctuated equilibrium	Steady equilibrium conditions for long periods punctuated by rapid, discontinuous, management-induced change	Static, equilibrium focus
Organizational Ambidexterity	Tushman & O'Reilly (1999), Westerman et al. (2006)	Multiple, simultaneous organizational behaviors	Organization can operate simultaneously in multiple, sometimes inconsistent modes	Static, equilibrium focus
Complex Adaptive Systems	Kauffman (1995), Levinthal (1997), McKelvey (1997), Rivkin (2000), Sinha & Van de Ven (2005)	Competitive landscape, fitness	Describe fitness via smooth vs. rugged landscape of peaks and valleys, redesigns can range from local adaptation to reorientation	Change is slow, and focus is on static fit
Holistic Configurations	Burton et al. (2006)	14 interrelated contingency factors, four holistic configurations, step-by-step design process	Highly interrelated contingency factors, small set of coherent design configurations	Static, equilibrium focus
Design Rules	Baldwin & Clark (2000), Burton & Obel (2013), Davis et al. (2009)	Design guided over time by if-then rules; abductive logic (what might be), expert system assistance	Good understanding of organization design principles, need for redesign, expert system benefits	Static, equilibrium focus

Peteraf and Reed (2007), countering the population ecology argument, suggest that managerial choice trumps environmental determinism in achieving fit. They argue that achieving fit is an organizational capability, with some organizations having more capability than others. Moreover, organizational change to establish or re-establish fit can take considerable time (Pant, 1998). Similar to other equilibrating approaches, fitness and change are viewed statically: the organization falls out of fit, equilibrates to regain fitness, and settles into another period of steady equilibrium.

Tushman and O'Reilly (1999) discuss organizational ambidexterity, which is the ability of an organization to operate simultaneously in multiple modes. For example, a temporally ambidextrous organization may take a short-term focus on efficiency and control – essentially striving to exploit current opportunities and capabilities – while simultaneously pursuing a long-term focus on innovation and risk taking – striving to explore future opportunities and contingencies. Ambidexterity proponents describe how an organization may even adopt multiple, inconsistent design architectures to exploit and explore simultaneously. The ambidexterity approach also adopts a static, equilibrium focus. Although decisions and

behaviors may be made and examined over different time frames, both the short-term and long-term foci concern static fit: the exploitation focus is on fit with current contingencies, and the exploration focus is on fit with future contingencies. Westerman, McFarlan, & Iansiti (2006) discuss how organization designs that fit well with early strategic contingencies (e.g., in the early part of the innovation life cycle) can fall into natural misfit with later ones. They go further by suggesting a tension between management approaches, one that requires an assessment of tradeoffs in a dynamic context: either seek to minimize the negative effects of misfit or undertake timely organizational change.

Building upon complex adaptive systems theory (Kauffman, 1995), some researchers discuss the fitness of organizational forms as they adapt to changing environmental landscapes (Levinthal, 1997; McKelvey, 1997; Rivkin, 2000). Such landscapes can be characterized in terms of multiple contingencies (Siggelkow, 2001). Both external and internal fitness aspects are considered as they affect organizational performance, which can be viewed graphically in terms of peaks (and valleys) reflecting comparatively high (and low) organizational performance. As the environment changes over time, the landscape of peaks and valleys can shift and require an organization to redesign and reconfigure its form, either through local adaptation or reorientation (Levinthal, 1997). Relatively smooth landscapes reflect robust organization designs, where local adaptation through hill climbing can maintain high performance even across gently shifting peaks and valleys. Alternatively, comparatively rugged landscapes require long jumps across peaks (Sinha & Van de Ven, 2005). Fitness landscapes change slowly and thus reflect punctuated equilibria, and the focus remains on equilibrating to maintain static fit.

Burton, DeSanctis, & Obel (2006) describe organization design via holistic configurations. Identifying 14 interrelated endogenous and exogenous contingency factors, they use the Miles and Snow (1978) typology of prospector, defender, analyzer, and reactor to integrate these factors simultaneously and coherently. Designing the integration process involves five steps: (1) getting started: define organizational scope and goals; (2) strategy: review organizational strategy and assess the environment; (3) structure: assess the organizational configuration and its operation across time and space; (4) process and people: review work processes and assess tasks, people, leadership, and climate; and (5) coordination and control: assess the organizational infrastructure, including coordination, control, information, and incentive systems. This systematic approach addresses change over time as a sequence of static adjustments: the organization falls out of fit, redesigns to regain fitness, and settles into another period of equilibrium.

Finally, Burton and Obel (2013) build upon their considerable prior work (Burton et al., 1998; Burton & Obel, 2004) to articulate organization design in terms of design rules. Essentially a large and complex base of if-then rules developed principally from contingency theory, this approach utilizes an information-processing view of organization design (Galbraith, 1974) and breaks design down into discrete heuristics (e.g., “If the environment is uncertain, then decentralize”; “If the task interdependency is low, then decentralize”). Such rules or heuristics can be applied individually or in combination, and even chained together, through which the implication of one rule (i.e., the “then” part) may imply the incorporation of a different rule (i.e., the “if” part) to support the kind of in-depth analysis needed to design a complex organization. Nevertheless, design rules still reflect an equilibrating orientation towards fit.

Fluxing Orientations

A number of other approaches to organization design deemphasize or discard the equilibrating notion of fit and opt for a fluxing orientation instead. According to the fluxing orientation, the organization is designed to be and remain in flux as its multiple contingencies shift so abruptly and frequently that they render an equilibrating orientation futile. Here, organizational (re) design is accomplished as a routine, integrative activity performed not just by high-level managers but by staff and operating employees as well. This orientation is also pragmatic, but it views content and process costs somewhat differently than the equilibrating orientation,

and the overall focus is on continuous adjustments over time. See Table 2 for a summary of research streams that are consistent with a fluxing orientation.

Table 2. Fluxing Approaches to Dynamic Organization Design

Research Stream	Proponents	Concepts	Assumptions	Limitations
Emergent Patterns	Orlikowski (1996), Barrett (1998)	Structuration and improvisation	"Design" will emerge from unplanned interaction patterns	Negligible design consideration
Dynamic Capabilities	Teece et al. (1997), Lengnick-Hall & Beck (2005), Eisenhardt & Martin (2000)	Market dynamism and ability to modify organizational capabilities	Organizational processes enable capabilities, changing processes affects changes in capabilities	Unclear how to incorporate multiple contingencies
Modular Reconfiguration	Brown & Eisenhardt (1997), Davis et al. (2009), Eisenhardt & Brown (1999), Karim (2006)	Balance between efficiency and flexibility	Small continuous changes	Fitness as management goal unclear, external validity unproven, uncertain applicability to major organizational restructurings and changes
Organizational Inertia	Nickerson & Zenger (2002), Boumgarden et al. (2012)	Modulation and vacillation	Formal and informal organizations have different dynamics	Good timing and maneuverability required
Organizational Dynamics	Nissen & Burton (2011), Håkonsson et al. (2013)	Dynamic stability, maneuverability, and fit; dynamic inertia and sustainable, continuous change	Stability-maneuverability tension, efficiency-flexibility tension	External validity unproven

Emergent patterns represents one extreme among fluxing organization design approaches.[3] Largely eschewing organization design as a rational or teleologic process, proponents of this approach discuss organization in terms of structuration (Orlikowski, 1996), improvisation (Barrett, 1998), and the like – essentially continuous, bottom-up processes. Through such processes, the implicit organization "design" emerges over time and through the accumulation of subtle and largely unplanned yet ubiquitous interpersonal interactions in the organizational context. Parallel in some respects to the manner in which population ecology affords negligible opportunity for redesign to address organizations in misfit, emergent patterns has little consideration of organizational structure or behavior as a focus of deliberate design. However, emergent patterns do occur at the organizational level, and they tend to be continuous in nature.

The dynamic capabilities approach (Teece, Pisano, & Shuen, 1997) focuses on the ability of an organization to achieve new forms of competitive advantage (e.g., appropriate in shifting environmental conditions), and it prescribes capabilities such as timely responsiveness, rapid and flexible product innovation, and the management capability to coordinate and redeploy resources as key. Lengnick-Hall and Beck (2005) discuss resilience capacity, which centers on recognizing where objectives such as responsiveness, flexibility, and expanded action repertoire are relatively more important than seeking higher levels of fit over time and which emphasizes the capability to select and enact the corresponding routines. In the dynamic capabilities view, there is no presumption that specific environmental conditions will move to equilibrium; hence organizational structures cannot be (re)designed and changed to achieve

3 As pointed out about population ecology above, one could argue that the emerging patterns perspective does not represent organization design at all. However, as also argued above, an implicit "design" can be inferred nonetheless. I include it here as an extreme, continuous approach that considers organizational structures and behaviors to emerge and flux through bottom-up change not through top-down design and equilibration.

static fit. The argument is that continuous change represents a more appropriate perspective than punctuated equilibrium, and it acknowledges the kinds of hypercompetitive (D'Aveni, 1994; Hanssen-Bauer & Snow, 1996) and high-velocity (Eisenhardt & Tabrizi, 1995) environments that are in perpetual flux and the kinds of nonlinear, dynamic environmental patterns that never establish equilibrium (Stacey, 1995).

Eisenhardt and Martin (2000) augment this discussion by relating dynamic capabilities to organizational processes (e.g., product development, alliancing, decision making) and explaining how "very dynamic" environments require different capabilities (rapid prototyping, early testing, real-time information processing, pursuit of multiple options, etc.). The term "dynamic capability" appears in several different fluxing approaches, but it is not immediately clear which specific dynamic capabilities are required to address various combinations of different, multiple contingencies (e.g., the 14 contingencies of Burton et al., 2006, noted above).

Similarly, through an approach called modular reconfiguration, Brown and Eisenhardt (1997) advocate "simple rules" and organizational "semi-structures" to balance efficiency and flexibility and to enable superior organization in complex, dynamic organizational environments. It remains unclear, however, whether fitness represents a management goal, as in the equilibrating approaches discussed above, or whether the goal of fitness should be abandoned in lieu of balance (especially between efficiency and flexibility). Simulation research shows that simple rules are robust across different environmental conditions, both predictable and dynamic (Davis, Eisenhardt, & Bingham, 2009). However, the simulation results used to interrelate organizational structure, performance, and environment are theoretical, and the external validity of the underlying models remains unproven.

Related work discusses patching (Eisenhardt & Brown, 1999) as a reactive process to shifting business environments, through which adding, splitting, transferring, combining, or exiting chunks of an organization (e.g., business units) can change the organization's focus to make better use of skills, balance capacity, and accomplish beneficial changes quickly. Karim (2006) builds upon this work, in part, to discuss modularity in organizational structure, particularly through reconfiguration of internally developed versus acquired organizational chunks, as a proactive process to search for new opportunities. Both patching and reconfiguration, however, refer to relatively small organizational changes.

Organizational inertia depicts resistance to change in many organizational settings because it relates to differences in the respective dynamics of the formal and informal organization (Nickerson & Zenger, 2002). Whereas redesign and change of the formal organization can be accomplished relatively quickly by management fiat, the informal organization requires more time – even with willing organizational participants – for people to adjust to formal organizational changes. Given this dynamic, the fluxing approaches of purposeful modulation (Nickerson & Zenger, 2002) and intentional vacillation (Boumgarden, Nickerson, & Zenger, 2012) are argued to be superior for dynamic organization design. Rather than waiting for the organization to reach a condition of severe misfit, and then instituting change in response, a more proactive management seeks to anticipate future misfits and maneuver the organization purposefully toward a different (holistic) design point well in advance. This highlights the importance of good timing and maneuverability. Initiating redesign at the wrong time or in the wrong direction, especially considering the inertia and maneuverability inherent in a particular organization design, could lead to perpetual misfit *and* incur high design process costs.

A dynamic view of organizations requires a dynamic fit concept. Nissen and Burton (2011) argued that human activity systems, such as organizations, and engineered physical systems, such as airplanes, bridges, and computers, both represent classes of systems (Checkland, 1981) and therefore share attributes at some level of abstraction. Seeking to define a dynamic fit concept, these authors borrowed concepts from the literature on aerodynamics (Houghton & Carruthers, 1982), which addresses dynamic, controlled systems. Those concepts, including the systemic relationships among them, are static stability, dynamic stability, and maneuverability.

Static stability is similar to the "path dependence" of an organization (Arthur, 1994; Nelson & Winter, 1982). Path dependence refers to how the set of decisions an organization

faces in any given situation is constrained by the decisions management has made in the past. Path dependence theory says that an organization whose existing performance trajectory is threatened by an internal or external disruption will search "in the neighborhood" for a new fit. Thus, static stability is a series of fits (or achieved equilibria) with a low magnitude of variation from previous fits.

Dynamic stability is concerned with how quickly a system returns to its performance trajectory after deviation caused by an external force. Compared to static stability, which is concerned with the magnitude of change, dynamic stability refers to the duration of change. Both static and dynamic stability are important to organizational adaptation, but both are equilibrium-based concepts that, arguably, are becoming less relevant in today's complex, dynamic organizational environments.

Maneuverability refers to a controlled system's planned change from one performance trajectory to another. Maneuverability has an inverse relationship to stability. That is, the more stable an organization is, the less maneuverable it is. Maneuverability adds a dynamic dimension to the fit concept by indicating that an organization must determine how to efficiently change trajectories by manipulating at least 14 contingency variables simultaneously.

Recent research by Håkonsson et al. (2013) examines organizational dynamics through computational modeling. Their findings challenge the long-standing idea that organizational efficiency must necessarily be traded off against flexibility. In contrast, their simulations suggest that organizations with fluxing designs can maintain both efficiency and flexibility simultaneously, appropriate for continuous change. Apparently, the key is to establish a set of dynamic capabilities suitable to generate high flow rates of organizational inertia. Such capabilities include "… building structures, organizational culture, and relationships" (p. 200). They explain further how inertia and competence emerge from two sources: the relationships that the organization builds with its environment (such as customers and suppliers) and internal consistency (such as socialization and operating rules). Although the implications for organization design have been established computationally and illustrated convincingly through simulation models, this research has yet to undergo significant empirical validation in actual organizations.

ANALYSIS AND PROJECTION

I used qualitative analytical techniques associated with hermeneutics and grounded theory building (Glaser & Strauss, 1967; Strauss & Corbin, 1990) and employed multi-stage data refinement and analysis (Gioia, Thomas, Clark, & Chittipeddi, 1994; Nissen, 2005) to both differentiate and interrelate the equilibrating and fluxing organization design approaches reviewed above. Such qualitative techniques include the constant comparison of texts, open and axial coding, theoretical sampling, and analyzing refined data (especially the literature review above) from a theoretical perspective. For purposes of brevity, the details of those analyses are not presented here. Four substantive themes emerge: (1) design orientation, (2) design tension, (3) designer/manager roles, and (4) measurement and validation. Using examples from the literature review above, I elaborate on each of these themes to develop a set of research projections on the topic of dynamic fit. The four themes and their associated projections are summarized in Table 3.

Table 3. Themes and Projections

Theme	Examples	Projections
Design Orientation	Equilibrating: focus on content costs Fluxing: accept misfits, focus on maneuverability processes	Classification typology Contingent application framework
Design Tension	Organizational ambidexterity: exploitation v. exploration Holistic configurations: organizational strategies and configurations endogenous redesign Modular reconfiguration: efficiency and flexibility Organization inertia: formal and informal organization Organizational dynamics: stability and maneuverability, efficiency and flexibility	Organizational "flight control systems" Design and manage for high inertia flow rate
Designer/Manager Roles	Population ecology: negligible redesign role Emergent patterns: negligible design role Equilibrating approaches: design is fixed and managed Fluxing approaches: management maneuvers the organization	Understand designer and manager roles Comparative advantages Minimal expectations Weigh process and content costs of organization design
Measurement and Validation	Equilibrating contingency fit: 50+ years of empirical support Fluxing approaches: need empirical validation, measure dynamic fit, examine dynamic inertia	Empirical support for fluxing approaches Extend and apply dynamic fit Extend and apply dynamic inertia

Design Orientation

The first theme pertains to the equilibrating versus fluxing orientations discussed above. The underlying assumptions – such as whether it makes sense or is even possible to maintain equilibrating fit and whether organization success centers on excellent organization design or outstanding management – differ markedly across the two orientations. Drawing again on the distinction between content costs (associated with misfit) and process costs (associated with redesign activity), the equilibrating orientation appears to emphasize content costs more than its fluxing counterpart does; the implicit guidance is to primarily address misfit (content costs). Alternatively, many fluxing schemes accept the content costs of misfit to a much greater extent.

In terms of promising future research, a classification typology and contingent application framework could shed considerable light on dynamic fit from both orientations. As noted earlier, dividing the organization design studies into equilibrating and fluxing categories reflects more of an imprecise heuristic than a rigid classification system. Research to develop a more precise classification system could be very useful, particularly in the area of episodic versus continuous organizational change (Weick & Quinn, 1999). Such a classification typology would be especially useful were it to outline clearly the relative advantages and disadvantages of the various organization design orientations and approaches, and were it to prescribe clearly the contingent conditions in which recommendations based on one orientation would be considered superior to those based on the other.

Design Tension

The second theme, also cutting across both the equilibrating and fluxing orientations, pertains to design tensions. With organizational ambidexterity, for instance, we find tension between exploitation and exploration, and with holistic configurations, one must choose between the relative strengths and weaknesses of each discrete strategy (e.g., prospector vs. defender) and its corresponding holistic design. Likewise, with fluxing approaches such as modular reconfiguration, we find tension between efficiency and flexibility. With respect to organizational inertia, we find tension between the formal and informal organization, with each manifesting different dynamics. The stability-maneuverability tension is fundamental to organizational dynamics, as is the classic tension between efficiency and flexibility.

The diverse organization design approaches reflect considerable variety in terms of how to approach design tension. Organizational ambidexterity accepts the idea of including two

(or more) inconsistent designs (such as one focused on exploitation, another emphasizing exploration), and tension across discrete strategies and their corresponding holistic designs can be addressed through purposeful modulation and intentional vacillation. Modular reconfiguration seeks balance across the tension between efficiency and flexibility, and by relating dynamic capabilities to organizational processes, some fluxing proponents emphasize rapid prototyping, early testing, real-time information processing, and capacity balancing.

The two organizational dynamics approaches differ somewhat from those above in terms of how to approach design tension; they acknowledge such tension but argue that it can be surmounted. In the aerodynamics approach, for instance, a stability-maneuverability tension can be mitigated through substantial organizational technology and sophistication, and in the dynamic inertia approach, an efficiency-flexibility tension can be overcome through fluxing, inertia-building organization design.

In terms of future research, further exploration of how fundamental tensions such as stability-maneuverability can be mitigated and how seemingly insurmountable trade-offs such as efficiency-flexibility can be transcended could be productive. What technologies would constitute effective organizational "flight control systems," and how would they enable stable organizations to behave nimbly or maneuverable organizations to achieve performance consistency? What specific aspects of organization designs and management techniques would enable high flow rates of inertia across diverse combinations of extant organization designs, and how would such designs and techniques need to vary across different multi-contingency contexts?

Designer/Manager Roles

The third theme pertains to the relative roles played by organizational designers and managers. Population ecology, for instance, includes negligible opportunity for designers to address organizations in misfit, and emergent patterns recognizes a similarly negligible role for designed interventions. By contrast, most of the other equilibrating approaches (e.g., contingency fit, punctuated equilibrium, holistic configurations) have the organization designer playing a critical role. Once the non-routine, often disruptive (re)design activity is completed by high-level organization designers, managers perform as well as they can with the organization that has been designed for them. Only after misfits accumulate sufficiently do organization designers re-emerge to equilibrate the configuration; then managers perform as well as they can once again, this time with the redesigned organization. In these approaches, organization designers are the stars. Organizational performance rests largely on the capability of designers as well as the appropriateness and timeliness of their designs; day-to-day management plays more of a supporting role in this orientation.

In the fluxing orientation, conversely, the various approaches to organization design place abundant burden upon management maneuvering. The (re)design is accomplished as a routine, often integrative activity, and maintaining organizational performance through fluxing designs represents a central responsibility of management. Indeed, distinctions between the roles of designer and manager begin to blur in this orientation. Organization designers play an important supporting role (especially in helping to create appropriate fluxing designs), but organizational success and failure are primarily the responsibility of managers, who are the stars in this orientation. The purposeful modulation and intentional vacillation approaches, for example, call for management to anticipate the need for redesign in a timely manner and steer the organization deftly, and managers of organizations designed for maneuverability are expected to pilot them skillfully.

With respect to future research, some fluxing approaches appear to rely upon deft organization design more than skillful management, and vice versa. Further, some appear to envision infrequent but disruptive organizational (re)design, whereas others seem to rely more on continuous fluxing and management expertise. Each of these approaches is likely to have comparative advantages and disadvantages, and each is likely to impose different expectations regarding the skill and experience levels of the organizational designers and managers taking part. How can a particular organization know whether it needs the very best organization designers, for instance, or whether an outstanding management team will

be adequate for a specific organizational configuration? How can organizations weigh the various process costs associated with hiring skilled and experienced organization designers against the range of content costs stemming from redesigning misfit?

Measurement and Validation

The final theme pertains to measurement and validation. All of the approaches discussed here are theoretically rich, but they vary substantially in terms of empirical support. At one extreme, the classic equilibrating approach of contingency fit reflects a half-century of empirical support and refinement, and although fewer decades have passed, both the equilibrating and fluxing approaches of the 1990s (e.g., organizational ambidexterity, dynamic capabilities, modular reconfiguration) benefit from considerable empirical work. At the other extreme, recent fluxing approaches (e.g., organizational inertia, organizational dynamics) have negligible empirical support.

With respect to future research, the newer fluxing approaches in particular can benefit greatly from empirical work to provide additional support and refinement or to identify critical flaws and impractical assumptions. What empirical support can be developed for and against each of the dynamic fit approaches reviewed in this article? How can insights into dynamic fit from the airplane analogy and the rate equations from dynamic inertia be validated and shown to reflect the dynamic structures and behaviors of organizations in the field? Further, recent developments in the measurement of dynamic fit and dynamic inertia are promising, and similar measurement advances are needed for the constructs of opportunity cost, content cost, and process cost in order to quantify and compare different approaches to dynamic organization design that are beginning to coalesce now. Research designed to interrelate and extend such measures, and to understand how they can be applied practically, offers an excellent opportunity to inform organization design for dynamic fit.

CONCLUSION

This review found gaps, alternative perspectives, and even conflicting views across the organization design literature in terms of establishing and maintaining dynamic fit. By examining both equilibrating and fluxing design orientations, four substantive themes emerged each of which has research implications for dynamic fit. This analysis enabled us to project a mosaic of promising research directions for enriching the fit framework and making it more relevant to today's organizations and environments.

REFERENCES

Alberts DS, Nissen ME. 2009. Toward harmonizing command and control with organization and management theory. *International C2 Journal* 3(2): 1-59.

Arthur WB. 1994. *Increasing returns and path dependence in the economy*. University of Michigan Press, Ann Arbor, MI.

Baldwin CY, Clark KB. 2000. *Design rules. volume 1. the power of modularity.* MIT Press, Cambridge and London.

Barrett FJ. 1998. Creativity and improvisation in jazz and organizations: Implications for organizational learning. *Organization Science* 9(5): 605-622.

Boudreau JW. 2004. Organizational behavior, strategy, performance, and design in management science. *Management Science* 50(11): 1463-1476.

Boumgarden P, Nickerson J, Zenger TR. 2012. Sailing into the wind: Exploring the relationships among ambidexterity, vacillation, and organizational performance. *Strategic Management Journal* 33(6): 587-610.

Brown SL, Eisenhardt KM. 1997. The art of continuous change: Linking complexity theory and time-paced evolution in relentlessly shifting organizations. *Administrative Science Quarterly* 42(1): 1-34.

Burns T, Stalker GM. 1961. *The management of innovation*. Tavistock, London, UK.

Burton RM, DeSanctis G, Obel B. 2006. *Organizational design: A step-by-step approach*. Cambridge University Press, Cambridge, UK.

Burton RM, Lauridsen J, Obel B. 2002. Return on assets from situational and contingency misfits. *Management Science* 48(11): 1461-1485.

Burton, RM, Obel B. 2004. *Strategic organizational diagnosis and design: The dynamics of fit* (3rd ed.). Kluwer, Boston, MA.

Burton RM, Obel B. 2013. *Design rules for dynamic organization design*. In A. Grandori (Ed.), *Handbook of economic organization:* 223-244. Edward Elgar Publishing, Northampton, MA.

Burton RM, Obel B, Hunter S, Søndergaard M, Håkonsson DD. 1998. *Strategic organizational diagnosis and design : Developing theory for application* (2nd ed.). Kluwer, Boston, MA.

D'Aveni RA. 1994. *Hypercompetition: Managing the dynamics of strategic maneuvering*. Free Press, New York, NY.

Davis JR., Eisenhardt KM, Bingham CB. 2009. Optimal structure, market dynamism, and the strategy of simple rules. *Administrative Science Quarterly* 54(3): 413-452.

Donaldson L. 1987. Strategy and structural adjustment to regain fit and performance: In defence of contingency theory. *Journal of Management Studies* 24(1): 1-24.

Donaldson L. 2001. *The contingency theory of organizations*. Sage Publications, Thousand Oaks, CA.

Eisenhardt KM, Brown SL. 1999. Patching: Restitching business portfolios in dynamic markets. *Harvard Business Review* 77: 72-82.

Eisenhardt KM, Martin JA. 2000. Dynamic capabilities: What are they? *Strategic Management Journal* 21(10/11): 1105-1121.

Eisenhardt KM, Tabrizi BN. 1995. Accelerating adaptive processes: Product innovation in the global computer industry. *Administrative Science Quarterly* 40(1): 84-110.

Eldredge N, Gould SJ. 1972. Punctuated equilibria: An alternative to phyletic gradualism. In T. J. M. Schopf (Ed.), *Models in paleobiology:* 82-35. Freeman, Cooper and Co, San Francisco, CA.

Galbraith JR. 1974. Organization design: An information processing view. *Interfaces* 4(3): 28-36.

Gersick CJG. 1991. Revolutionary change theories: A multilevel exploration of the punctuated equilibrium paradigm. *Academy of Management Review* 16(1): 10-36.

Gioia DA, Thomas JB, Clark SM, Chittipeddi K. 1994. Symbolism and strategic change in academia: The dynamics of sensemaking and influence. *Organization Science* 5(3): 363-383.

Glaser B, Strauss A. 1967. *The discovery of grounded theory*. Aldine, New York, NY.

Håkonsson DD, Klaas P, Carroll TN. 2013. The structural properties of sustainable, continuous change: Achieving reliability through flexibility. *Journal of Applied Behavioral Science* 49(2): 179-205.

Hannan MT, Carroll GR. 1995. An introduction to organizational ecology. In G. R. Carroll and M. T. Hannan (Eds.), *Organizations in industry: Strategy, structure and selection:* 17-31. Oxford University Press, New York, NY.

Hannan MT, Freeman J. 1977. The population ecology of organizations. *American Journal of Sociology* 82: 929-964.

Hanssen-Bauer J, Snow CC. 1996. Responding to hypercompetition: The structure and processes of a regional learning network organization. *Organization Science* 7(4): 413-427.

Haughton EL, Carruthers NB. 1982. *Aerodynamics for engineering students* (3rd ed.). Edward Arnold, London, UK.

Karim S. 2006. Modularity in organizational structure: The reconfiguration of internally developed and acquired business units. *Strategic Management Journal* 27(9): 799-823.

Kauffman SA. 1995. *At home in the universe: The search for laws of self-organization and complexity*. Oxford University Press, New York, NY.

Klaas P, Lauridsen J, Håkonsson DD. 2006. New developments in contingency fit theory. In R. M. Burton, B. Eriksen and D. D. Håkonsson (Eds.), *Organization design: The evolving state-of-the-art:* 143-164. Springer, New York, NY.

Lawrence PR, Lorsch JW. 1967. *Organization and environment; Managing differentiation and integration*. Division of Research, Graduate School of Business Administration:

Harvard University, Boston, MA.
Lengnick-Hall CA, Beck TE. 2005. Adaptive fit versus robust transformation: How organizations respond to environmental change. *Journal of Management* 31(5): 738-757.
Levinthal DA. 1997. Adaptation on rugged landscapes. *Management Science* 43(7): 934-950.
McKelvey B. 1982. *Organizational systematics--taxonomy, evolution, classification*. University of California Press, Berkeley, CA.
McKelvey B. 1997. Quasi-natural organization science. *Organization Science* 8(4): 352-380.
Miles RE, Snow CC. 1978. *Organizational strategy, structure, and process*. McGraw-Hill, New York, NY.
Miles RE, Snow CC. 1984. Fit, failure, and the hall of fame. *California Management Review* 26: 10-28.
Mintzberg H. 1979. *The structuring of organizations : A synthesis of the research*. Prentice-Hall, Englewood Cliffs, NJ.
Nelson RR, Winter SG. 1982. *An evolutionary theory of economic change*. Belknap Press, Cambridge, MA.
Nickerson JA, Zenger TR. 2002. Being efficiently fickle: A dynamic theory of organizational choice. *Organization Science* 13(5): 547-566.
Nissen ME. 2005. Dynamic knowledge patterns to inform design: A field study of knowledge stocks and flows in an extreme organization. *Journal of Management Information Systems* 22(3): 225-263.
Nissen ME, Burton RM. 2011. Designing organizations for dynamic fit: System stability, maneuverability and opportunity loss. *IEEE Transactions on Systems, Man and Cybernetics, Part A* 41(4): 418-433.
Nissen ME, Leweling TA. 2008. Conceptualizing dynamic organizational fit in multi-contingency contexts. *Proceedings*, Academy of Management Conference, Anaheim, CA.
Orlikowski WJ. 1996. Improvising organizational transformation over time: A situated change perspective. *Information Systems Research* 7(1): 63-92.
Pant PN. 1998. Deviation from fit: An advantage when environments change. *Management International Review* 38(4): 287-301.
Peteraf M, Reed R. 2007. Managerial discretion and internal alignment under regulatory constraints and change. *Strategic Management Journal* 28(11): 1089-1112.
Rivkin JW. 2000. Imitation of complex strategies. *Management Science* 46(6): 824-844.
Romanelli E, Tushman ML. 1994. Organizational transformation as punctuated equilibrium: An empirical test. *Academy of Management Journal* 37(5): 1141-1166.
Sabherwal R, Hirschheim R, Goles T. 2001. The dynamics of alignment: Insights from a punctuated equilibrium model. *Organization Science* 12(2): 179-197.
Siggelkow N. 2001. Change in the presence of fit: The rise, the fall, and the renaissance of liz claiborne. *Academy of Management Journal* 44(4): 838-857.
Sinha KK, Van de Ven AH. 2005. Designing work within and between organizations. *Organization Science* 16(4): 389-408.
Stacey RD. 1995. The science of complexity: An alternative perspective for strategic change processes. *Strategic Management Journal* 16(6): 477-495.
Strauss A, Corbin J. 1990. *Basics of qualitative research: grounded theory procedures and techniques*. Sage, London, UK.
Teece DJ, Pisano G, Shuen A. 1997. Dynamic capabilities and strategic management. *Strategic Management Journal* 18(7): 509-533.
Tushman ML, O'Reilly CA, III. 1999. Building ambidextrous organizations: Forming your own "skunk works". *Health Forum Journal* 42(2): 20-24.
Van de Ven A, Poole MS. 1995. Explaining development and change in organizations. *Academy of Management Review* 20(3): 510-540.
Venkatraman N. 1989. The concept of fit in strategy research: Toward verbal and statistical correspondence. *Academy of Management Review* 14(3): 423-444.
Weick KE, Quinn RE. 1999. Organizational change and development. *Annual Review of Psychology* 50: 361-386.
Westerman G, McFarlan FW, Iansiti M. 2006. Organization design and effectiveness over the innovation life cycle. *Organization Science* 17(2): 230-238.

Woodward J. 1965. *Industrial organization: Theory and practice*. Oxford University Press, London, UK.
Zajac EJ, Kratz MS, Bresser RKF. 2000. Modeling the dynamics of strategic fit: A normative approach to strategic change. *Strategic Management Journal* 21(4): 429-456.
Zhao X, Liu C. 2010. Steering dynamic collaborations between business processes. *IEEE Transactions on Systems, Man and Cybernetics, Part A,* 40(4): 743-757.
Zhao X, Liu C, Yang Y, Sadiq W. 2009. Aligning collaborative business processes – an organization-oriented perspective. *IEEE Transactions on Systems, Man and Cybernetics, Part A,* 39(6): 1152-1164.

MARK E. NISSEN

Professor
U.S. Naval Postgraduate School
E-mail: mnissen@nps.edu