Managing the Risk of Planned Organizational Change

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ABSTRACT

Change in general, and planned organizational change in particular have been the focus of considerable amount of theoretical and applied research, as evidenced by numerous change management frameworks and the emergence of an applied business discipline of change management. While change management frameworks and practices are overtly aimed at reaching the stated goals of organizational self-transformations, the process and outcome threats that tend to accompany those initiatives are yet to be explicitly included in organizational enterprise risk management (ERM) planning and efforts. It is the purpose of this article to compel an explicit treatment of risks emanating from planned organizational change by contributing a process and a supporting operationalization geared toward systematic identification of individual threats, objective estimation of change initiative failure probability, and the delineation of clear risk response alternatives.

KEYWORDS

change management; enterprise risk management; risk assessment; risk estimation; risk measurement

ORGANIZATIONAL CHANGE

Change is ubiquitous in virtually all aspects of commercial activities (Chew and Choo, 2008; Dawson, 1994; Pettigrew et al., 1992). When considered from a broad philosophical perspective it can be seen as an inescapable consequence of the dynamism of natural and socio-economic ecosystems (Brown and Eisenhardt, 1997). What has been termed *continuous complex change* (Weick and Quinn, 1999) can thus be characterized as inevitable, and at times even imperceptible. Looked at from that perspective, continuous change can be seen as a force shaping organizational learning (Black, 2000; Brown and Eisenhardt, 1997; Mullins, 2002), often manifesting itself in small increments (Dawson, 1994; Garvin, 1993; Nonaka, 1988).

Not all change, however, takes the form of continuous ad hoc adaptations (Miazga, 2015; Van Den Huevel, 2013; Weick and Quinn, 1999) – organizations also undertake discrete and deliberate change initiatives, often with profound consequences (Boonstra, 2013; Donohue and Heckman, 1991). For example, a business firm may opt to amend its governance structure or operational processes to better suit its needs or goals. In a more general sense, whether it is strategic restructuring or operational process reengineering, the resulting alteration is a manifestation of *self-imposed episodic change* (Collins, 1998; Stickland, 1996; Weick and Quinn, 1999).

Self-initiated change events are usually motivated by organizational betterment; however, upsetting of organizational equilibrium can be disruptive, at times it can even lead to adverse consequences (Huczynski and Buchanan, 2001; Judson, 1991). While in principle the potential downsides of change initiatives are implicitly acknowledged by change management frameworks (Kotter, 1995; Pettigrew et al., 1992), those conceptualization nonetheless lack meaningful means of assessing the potential for, and responding to threats posed by a combination of failure to reach the desired 'future state' and the disruption of organizational status quo (Garvin, 1993; Hendry, 1996; Phillips, 1983). Similarly, the widely used enterprise risk management (ERM) frameworks – ISO 31000 and COSO – fail to expressly address risks associated with organizational self-change initiatives (COSO, 2004; ISO, 2009), which runs counter to their stated goal of managing the totality of organizational risks (Fraser and Simkins, 2010; Lam, 2014; Taylor, 2014). Hence it is the purpose of this research to compel a more explicit treatment of threats arising out of self-imposed organizational change by contributing how dangers posed by those initiatives are conceptualized and measured.

Understanding Organizational Change

Heraclitus, a pre-Socratic Greek philosopher, is believed to be one of the first thinkers to formally acknowledge the ubiquity of change, as captured in his doctrine of universal flux and its derivative claim that 'change is the only constant in life' (Wheelwright, 1959). However, it was the late 19th century's wave of great socio-cultural changes, coupled with the rise of rationality and the embrace of the scientific method that spurred wider interest in the nature and the process of change. It was within that context that the leading social thinkers of the era, including Herbert Spencer, began to conceptualize *social change* as an evolutionary process, much like the biological ones described by Charles Darwin (in fact, it was Spencer who coined the term 'natural selection', often erroneously attributed to Darwin) (Offer, 2010; Wilson and Hynes, 2009).

Building on the conceptual foundation of the concept of social change, Kurt Lewin introduced the notion of *planned change* (Lewin 1943, 1947), which since became one of the foundations of the field of organizational development (Skipton, 2013). Seeking deeper understanding of the mechanics of social change, Lewin developed field theory, which posits that mapping out the totality and complexity of the 'field' (the environment) is key to making sense of the manner in which an 'entity' (an individual or an organization) interacts with its environment (Lewin, 1939). Ultimately, he was able to capture the essence of change in a simple 3-step model of 'unfreeze, change and refreeze' (Burnes, 2004; Lewin, 1947). Although researchers today tend to dismiss his model as overly simplistic and outdated (Dent and Goldberg, 1999; Kanter et al., 1992), it drew attention to the two distinct aspects of self-imposed

organizational change: 1. interactions between the individual and the organization (Back, 1992; Lewin, 1939), and 2. interactions between the organization and its ecosystem (Banasiewicz, 2015; Bertin et al., 2013; El Sawy and Pereira, 2013). Recognizing and expressly addressing the distinctiveness between those two dimensions of organizational change is critical as the former addresses the process of change, while the latter sheds light on factors that precipitate episodic self-imposed organizational change (Beer and Nohria, 2000; Galpin, 1996).

Another important, though less direct contribution to the theory and practice of intentional organizational change was W. Edwards Deming's work on statistical quality control (Deming, 1981, 1994). Although not overtly focused on organizational change, Deming's 4-stage, plan-do-check-act virtuous process, deeply rooted in the scientific method, drew attention to the importance of methodological rigor and the need to develop objective measure of the efficacy of the process of change (Stickland, 1998).

Further contributing to better understanding of the mechanics of change were the more recent inquiries focused on complex systems, and the idea of *multifaceted change* (Beer and Nohria, 2000; Hendry, 1996; Lewis, 1994). The emerging evidence suggests that change in complex systems cannot be adequately understood when examined through the prism of one-way causal process, as used in studies of technological innovation-precipitated economic dislocation (Mimiko, 2005; Pezzuto, 2013); instead, such change should be studied in terms of process, interrelationships, and rhythms of mutually interactive systems (Brown and Eisenhardt, 1997; Hannan and Freeman, 1988; Lewis, 1994). Within the confines of organizational self-change, those insights suggest the need to look beyond the determinism of the scientific method, and emphasize conditions over causes.

Another important consideration is that, at their core, business and other organizations are essentially groups of individuals joined together in pursued of shared goals (Ashkanasy et al., 2011; Nadler et al., 1992), thus organizational change is ultimately personal and as such cannot be fully understood without expressly taking into account the human dimension (Armenakis et al., 1999; Beer and Nohria, 2000; Galpin, 1996). Empirical evidence from social psychology and organizational behavior lends credence to that assertion by pointing out that when one's self-interest is threatened by organizational change, that individual is likely to resist change (Judson, 1991; Lewin, 1947; Liu and Perrewe, 2005). More specifically, research evidence suggests that organizational commitment, or the degree of an individual's dedication to the organization, is of particular importance to developing a deeper understanding of the human dimension of organizational self-change (Pettigrew, 1980; Schein, 1988).

Impact of Commitment

Organizational commitment is a multidimensional summary construct, comprised of three distinct elements: 1. compliance, or willingness to conform to organizational rules and policies and reward structures, 2. identification, or the attachment one feels to being socially affiliated with the organization, and 3. internalization, or the degree to which an individual is willing to adapt organizational values (Choi et al., 2015; Klein et al., 2009; Scrima et al., 2015). Evidence points to meaningful positive relationship between one's organizational compliance, identification and internalization, and one's openness to change (Armenakis et al., 1999; Choi et al., 2015). The strength of organizational commitment is in turn a function of individual personality traits (Choi et al., 2015), and organizational dynamics (Klein et al., 2009). Some personality traits, such as respect for authority, tend to be ingrained in each person and thus more change-resistant (Choi et al., 2015); other traits, such as identification, are usually more situational or aspirational – in general, individuals tend to identify more readily with groups that convey achievement, selectivity, or bear other marks of distinction (Linstead et al., 2007; Smith, 2015). Also worth noting is the impact of the degree of congruence between the values brought about by change and one's own beliefs and attitudes (Beauvois, 2001; Kelman, 1958; Romer and Hendrick, 1979); more specifically, a person's resistance to change tends to heighten when aspects of change conflict with that person's innermost feelings, which are usually hard to discern and even more difficult to alter (Xinyin and Rubin, 2011).

At a group level, attainment of envisioned benefits of change also depends on successfully navigating through two core sets of organizational dynamics: transformational, and transactional (Klein et al., 2009). The former are those that require new behaviors resulting from internal or external pressures, such as leadership, strategy or organizational culture changes (Bojeun, 2013; Tourish, 2013), while the latter encompass a host of psychological and organizational factors that directly affect motivation and performance, such as organizational structure, reward system or management practices (Frost et al., 2010; Olson and Lunkenheimer, 2009). Transformational dynamics are exemplified by adoption of a new, more structured workflow management system, which often entails a fundamental re-setting of how work is done throughout the organization; transactional dynamics, on the other hand, can be exemplified by organizational restructurings, which often result in numerous reporting changes and re-alignments. Both can take considerable time to unfold, thus the importance of thoughtful planning cannot be overstated.

MANAGING ORGANIZATIONAL CHANGE

No change is truly value-free (Galpin, 1996; Judson, 1991). Organizational alterations often touch upon individuals' self-interest thus many – if not most – change initiatives have their proponents and opponents (Judson, 1991; Lewin, 1947; Liu and Perrewe, 2005). In more general terms, uncertainty regarding the impact of change on self will likely shape how impacted individuals react to change (Dent and Goldberg, 1999; Smith, 2015). As can be expected, those who see change to be personally beneficial are likely to embrace it, while those who do not are likely to oppose. Behavior wise, emotional responses can be expected to influence not only how individuals handle change related tasks, but also what information regarding the process of change they retain, as posited by Liu and Perrewe's cognitive-emotional model (Liu and Perrewe, 2005).

Further adding to the difficulty of managing organizational change is that adaptive responses occur not only at the individual, but also the group level, with former capturing how people experience change, while the latter drawing attention to the impact of change on group dynamics, organizational structures and processes (Collins, 1998; Hannan and Freeman, 1988). That change response duality gives rise to important leadership style implications, most notably it suggests that no single leadership style is ideally suited to managing the totality of a change initiative (Hughes, 2016; Seo et al., 2012). Organizational leaders who are more effective at task-oriented behaviors are more likely to focus on activities associated with the implementation of change, while leaders who are more effective at person-oriented behaviors are more likely to emphasize on communication-related activities (Battilana et al., 2010).

Change Management Frameworks

To reach its stated goals, the strategy of planned organizational change ought to be carefully mapped out (Collins, 1998; Pillips, 1983; Stickland, 1996), and change-enabling tactics should be controlled and directed (Judson, 1991; Kotter, 1995; Lewin, 1947; Marshak, 2005; Phillips, 1983). Typically, that entails anticipating requirements and obstacles, and designing means to fulfill needs and overcome obstacles, all while staying focused on successful transition from the current to future state (Armenakis et al., 1999; Dawson, 1994). Given the earlier discussed complexities stemming from the combination of personality traits (Choi et al., 2015) and group dynamics (Klein et al., 2009), change planning and management framework can be highly beneficial (Kotter, 1995; Lewin, 1947). Over the past several decades, multiple planned organizational change conceptualizations have been proposed, some quite similar and others offering drastically different perspectives.

Formal typologies of change management can be traced back to the pioneering work of Kurt Lewin in the 1940s, in which he attempted to capture the individual and group mechanics governing the process of organizational change (Burnes, 2004; Chew and Choo, 2008). Viewing organizations as highly resistant to change, Lewin theorized that to be successful – i.e., to reach the desired state and to endure – the organization-initiated change must begin by first disrupting the current equilibrium, to be then followed

by the introduction of a new state, and lastly the creation of a new equilibrium (Lewin, 1947). He captured that reasoning in a 3-step process of unfreeze—change—refreeze, modeled on the thermodynamic process of breaking down, changing and re-constituting of matter, as exemplified by changing the shape of a block of ice. Process wise, the 'unfreeze' step focuses on clearly stating and communicating the need for change and preparing the organization for breaking down the existing states; the 'change' step aims to resolve the resultant uncertainty by communicating details of the new state, and lastly the 'refreeze' stage aims to solidify the new state. Intuitive and simple, the 3-step process has been the staple of theoretical research and practice for several decades following its introduction, but its use waned as researchers began to view it as overly simplistic and only applicable to relatively small-scale change initiatives (Dawson, 1994; Kanter et al., 1992; Marshak, 1993).

Building on Lewin's foundational work and hoping to provide more operational clarity, Judson (1991) proposed a more detailed conceptualization which viewed planned organizational change as being comprised of five distinct phases: 1. analysis and planning, 2. communication, 3. introducing of the new state, 4. migrating from old to new, and 5. consolidating and institutionalizing the new state. Although more granular and thus more directive than Lewin's three step model, Judson's framework was also criticized as too simplistic, vague and difficult to operationalize (Fritzenschaft, 2014). Ultimately, the conceptualizations of change management that garnered the greatest degree of acceptance among researchers and practitioners were Kotter's (1995) eight-steps and Galpin's (1996) nine-wedges (so named due to being graphically depicted as nine wedges forming a wheel) models.

The point of departure in Kotter's model is establishing a sense of urgency by relating external environmental realities to actual and potential crises and opportunities facing an organization, followed by forming a powerful coalition of individuals who embrace the need for change and who can rally others. Next, carefully chosen change agents are empowered to act on the vision by amending structures, systems, policies and procedures in ways that will facilitate implementation, followed by planning for, achieving and publicizing short-term wins with the goal of building momentum for continued change. Next, improvements are consolidated and other structures, systems, procedures and policies, to the degree to which those are not consistent with the new vision, are also amended. Lastly, the new approaches are institutionalized by publicizing the connection between the change effort and organizational success (Kotter, 1995).

Galpin sees the process of organizational change as being a bit more complex – his model divides the continuum of organizational change into nine parts, starting with establishing the need to change, followed by developing and disseminating a vision of a planned change, diagnosing and analyzing the current situation, leading to generating and detailing recommendations. Once compiled, the recommendations are pilot-tested and, assuming satisfactory results prepared for rollout and rolled out; the final stage in Galpin's model is focused on measuring, reinforcing and refining the newly introduced alterations.

An altogether different view of self-imposed organizational change management process has been put forth by Amenakis, Harris and Field (1999) who proposed an even more involved two-phase, multi-consideration model. The goal of the first general phase is to minimize any resistance to change by creating individual-level readiness for change, while the second phase aims to facilitate adaption and institutionalization of desired change. The authors see the effectiveness of change adaption efforts as being a function of five distinct factors: 1. discrepancy, which is the perception of envisioned change as being necessary, 2. self-efficacy, which reflects organizational capacity to change, 3. personal valence, which is the recognition of personal relevance of change, 4. (organizational) leadership support, and 5. appropriateness, which speaks to the conviction that the contemplated change is right for the organization.

It should be noted that the original Lewin's 3-step process, as well as its conceptual descendants that followed treat the process of managing organizational change as primarily a group, socio-psychological phenomenon – not all researchers, however, view change in that manner. For instance, Tichy and Devanna (1990) see the transformational role of the change leader as the nexus of organizational change; using a 3-act theatre metaphor they depict the process of change as the leader 'acting out' the changing roles of recognizing the need for change (act 1), creating the vision of a new state (act 2), and

institutionalizing change (act 3). Taking a still different approach, Hannan and Freeman (1989) and Aldrich (1999) likened organizational change to the evolutionary biology model of variation—selection—retention, itself a generalization of Darwin's (1859) theory of evolution. Interestingly, both approaches bear some clear similarities to Lewin's 3-step process insofar as all see the process of change as proceeding through conceptually alike stages of upending the current status quo, presenting an alternative, and solidifying the resultant new status quo; as such, those approaches are subject to the same shortcoming of being overly simplistic and operationally vague.

Whereas the above outlined change conceptualizations approach organizational change from either social or biological perspective, the transtheoretical model proposed by Prochaska and colleagues (Prochaska and DiClemente, 1983; Prochaska et al., 1992) seeks to integrate the totality of biopsychosocial processes (hence the name 'transtheoretical') governing intentional behavioral change into a single framework. The model postulates that change-compelled behavioral modifications follow a series of discernable stages of pre-contemplation (no change readiness), contemplation (emergence of change readiness), preparation (ready for change), action (change), and maintenance (post-change reinforcement); it also posits that while the amount of time required to move through individual stages tends to vary across individuals, the actions required to move to the next stage do not vary.

Building on the cumulative wisdom of earlier research, Hiatt (2006) proposed the ADKAR model, an expressly practice focused change management framework offering parsimonious, yet action directing specificity-rich means of guiding purposeful organizational alterations. The ADKAR (short for *A*wareness, *D*esire, *K*nowledge, *A*bility and *R*einforcement) model is based on the original Lewin's premise that self-imposed organizational change usually meets resistance and thus the focal point of change management efforts should be to overcome that resistance (Lewin, 1947). The model posits that resistance can be overcome, or considerably diminished, by developing cognizance of the need for change (awareness), instilling a felt need to participate in the planned change (desire), developing sound understanding of how to change (knowledge), enabling the acquisition of new skills and behaviors called for by the planned change (ability), and lastly taking well planned actions geared toward making the change 'stick' (reinforcement).

Regardless of philosophical or operational differences, the change management frameworks share a common concern for the possibility of planned change failing to deliver the anticipated benefits. Implicitly recognizing that organizations are more than sums of their constituents (Hahn and Ince, 2016; McInerney and Koenig, 2011), change management conceptualizations are acutely focused on the human dimension of change, as well as organizational processes, structures and systems (Argyris, 1992; Kanter et al., 1992; Mullins, 2002). However, the prevailing change management rationale fails to recognize that the organizational choice to disturb the current state of its group dynamics as well as organizational processes, structure and systems may leave the organization worse off than it was prior to initiating change. In the language of risk assessment, self-initiated change can be characterized as upside risk, as it has the potential to either advance or regress organizational well-being (Banasiewicz and Weidman, 2016), yet the widely used enterprise risk management conceptualizations do not expressly take into account self-imposed organizational change (Lam, 2014; Taylor, 2014).

PLANNED ORGANIZATIONAL CHANGE AS A SOURCE OF RISK

A significant amount of academic (Huczynski and Buchanan, 2001; Kotter, 1996; Smith, 2002; Stickland, 1998) and industry (IBM, 2008; McKinsey, 2010; Messinger and Havely, 2013) evidence suggests a high rate of failure of planned change initiatives. More specifically, a widely cited industry estimate places the failure rate at roughly 70%[1], which is surprisingly high for initiatives over which organizations exercise full or near-full control. Setting aside any potential definitional or measurement validity related considerations (e.g., operationalization of 'success' and 'failure'), the available empirical evidence clearly suggests that self-imposed organizational change is a source of risk (Argyris, 1992; Brown and Eisenhardt, 1997; Elrod and Tippett, 2002).

Approaching planned, self-initiated organizational change as a risk abatement problem calls into focus the need for a sound risk assessment framework to aid in the task of identification and estimation of specific threats (Banasiewicz and Weidman, 2016; Hussain, 2013). A review of the applicable research suggests that there are two general approaches to categorizing organizational change: 1. by intensity, and 2. by subject (Amado et al., 2001; Marshak, 1993; Nadler et al., 1995; Pheysey, 1993). The former yields broad meta-types, such as 'developmental', which encompass continuous improvement of the current state, 'transitional', which introduces discontinuous alteration of the current states, and 'transformational', which replaces current with the new state, types of change (Amado et al., 2001; Marshak, 1993). The latter tends to yield more narrowly scoped groupings, as exemplified by the six-type categorization schema of strategy, structure, process, people, culture and assets (Nadler et al., 1995; Pheysey, 1993; Smith, 2002). Although both approaches have distinct advantages and can yield valuable insights, the subject-of-change-focused categorization is more definitionally granular and operationalization friendly, thus better aligned with the stated goals of threat assessment (Banasiewicz and Weidman, 2016; Hussein, 2013; Lam, 2014).

The strategy for managing planned organizational change has also been a subject of competing conceptualizations. Higgs and Rowland (2005) view the process of managing organizational change as complex but predictable, and assert that the key determinants of how organizational change should be managed are the perception of the complexity of change, and the extent to which it is believed that change can be effected on a uniform basis or widely distributed activity. Van de Ven and Poole (1995), on the other hand, looks at change process through the lens of natural process of variation, selection and retention, and advocates focusing on the unit and the mode of change as the key to resolving inevitable conflicts arising out of competition for scares resources that tends to accompany organizational change. Embracing a yet different perspective, Dunphy and Stace (1988) see clearly delineated scope of change as being of central importance in framing an effective change management strategy, which, depending on the breadth of scope of the envisioned change, can take the form of a more adaptive variant, such as incremental or transformative change strategy.

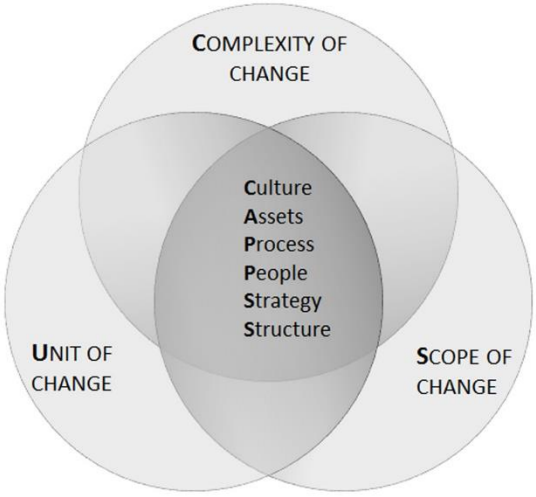
In general, the earlier discussed change management frameworks including Lewin's (1947), Judson's (1991), Galpin's (1996), Kotter's (1995), and Amenakis, Harris and Field's (1999) are focused on managing the *process* of change. Though offering differing levels of process granularity, those conceptualizations share in a common conviction that the ultimate success of self-imposed organizational change is contingent on taking proactive steps guided by better understanding of the underlying progression, or state changes. An altogether different take on managing planned change is reflected in work of Van de Ven and Poole (1995), Dunphy and Stace (1988), and Higgs and Rowland (2005). Those researcher emphasize the importance of understanding the *impact* of change by means of expressly addressing distinct organizational dimensions that are affected by organizational state changes. Hence in the meta-analytic sense, the otherwise diverse body of research addressing planned organizational change can be summarized using two general dimensions of process and impact of change.

When considered in the context of risk management, it becomes evident that the 'process' and 'impact' dimensions of potential dangers emanating from self-initiated organizational change initiatives lend themselves to anticipatory risk assessment. Synthesis of the process-related research findings suggests three distinct facets that characterize that aspect of planned change: 1. *c*omplexity of change, 2. *u*nit of change, and 3. *s*cope of change, jointly abbreviated as CUS. Stated differently, from the standpoint of assessing the dangers of planned change, the complexity, unit, and scope of change are the root causes of potential process failures. The more complex, the more incremental, and broader the contemplated self-imposed change, the greater the possibility of failure.

The second of the two meta-dimensions characterizing planned organizational change is the impact or the 'what' of change. A review of research addressing that dimension suggests six distinct facets of *c*ulture, *a*ssets, *p*rocess, *p*eople, *s*trategy, and structure, jointly abbreviated as CAPPSS. Thus within the confines of managing threats emanating from self-imposed organizational change, those six broad points of failure should be the focal points of anticipatory risk assessment efforts. However, in contrast to the CUS dimension, the importance of which does not change across change initiatives (i.e., all planned

change initiatives can be described in terms of the requisite behavioral and related modifications, or complexity, the elementary entities that are to change, or units, and the span or scale of the desired alterations, or the scope), the importance, or even the applicability of the six CAPPSS facets can vary across situations, with as few as one or as many as all six can be impacted by a given initiative. For instance, a simple reorganization might only entail re-drafting of organizational structure, while a more expansive one might entail changing of not only the organizational structure, but also its culture, processes (how work is done), strategy, and more. The generalized relationship between the two meta-categories is graphically depicted in Figure 1:

FIGURE 1
Generalized CUS – CAPPSS Relationship



Within the broad confines of enterprise risk management (ERM), assessment of organizational threats entails capturing within-threat-category as well as cross-threat-categories factors, which is commonly accomplished using a process comprised of several distinct steps[2] (Duckert, 2011; Fraser and Simkins, 2010; Millis, 2013). Accepting that management of organizational change falls within the broader scope of ERM, and it constitutes a distinct category of threats, assessment of planned self-change-emanating threats should follow the general logic of ERM risk assessment, but its scope should be adjusted to reflect the self-initiated nature of those threats. More specifically, while assessment of enterprise-wide risks needs to encompass both the within-threat-category and the cross-threat-category exposures, assessment of only the planned change-emanating risks should only encompass the within-threat category risks. Consequently, the commonly used five-step enterprise-wide risk assessment framework of identification, estimation, mapping, response, and capitalization (Banasiewicz and Weidman, 2016; Hussein, 2013; Lam, 2014) should be reduced into the three-step process of identification, estimation, and response.

Threat Identification

One of the more common and visible types of organizational change is reorganization (Blatz et al., 2006; Gooderham, 1991; Rowden, 2001). It is a fairly broad category of organizational alterations encompassing changes such as reshaping of organizational control structures (e.g., moving from a product- to geography-centric model), financial reward mechanisms (e.g., tying a larger part of compensation to performance) or processes (e.g., deploying a comprehensive management system) (Alkhafaji, 2001; Lopez Lubian, 2014). When considered from the perspective of risk management, there is ample research evidence (e.g., Doria, 1982; Guerriero et al., 2016; Hurst, 1995) pointing to numerous potential pitfalls of amending the organizational structure; furthermore, there is also ample anecdotal

evidence exemplifying instances of organizational change delivering disappointing outcomes. For instance, Yelp, a business review site, recently (January, 2015) removed geography from the way it assigned territories to sales reps, a move that was aimed at increasing efficiency but instead resulted in a sharp sales decline, followed by a precipitous share price decrease (following which the company reverted to its previous model within about two months).

Yelp's failed reorganization speaks to the earlier mentioned 70% failure rate estimate for planned organizational change initiatives – it could be characterized as *outcome threat,* which is the possibility of the change initiative producing adverse outcomes. Each initiative, however, also faces the possibility of process failure, defined here as the inability of the organization to successfully transition from the 'current' to 'future' state. As discussed earlier, planned organizational transformations must overcome resistance stemming from individual self-interest (Judson, 1991; Lewin, 1947; Liu and Perrewe, 2005) and group dynamics (Collins, 1998; Hannan and Freeman, 1988), thus the resultant *process threat* is endemic to all planned change initiatives.

From the standpoint of risk management, each of the two threat dimensions pose different risk identification challenges. Outcome threats are ultimately an expression of uncertainty of anticipated benefits of the future state, while process threats represent the possibility that the means and mechanisms deployed to bring about the future state are insufficient. Identification of the former is tantamount to delineating all possible change outcomes. In the above Yelp example it would entail anticipating the sales drop as one of the possible consequences of the change that has been instituted, which could be approached deductively or by drawing inferences from reviews of similar initiatives deployed by similar organizations.

Identifying of specific process threats is considerably more involved, particularly for complex organizational change initiatives that take significant amounts of time to achieve and that encompass numerous alterations. To yield a sufficiently exhaustive set of potential risks, the process threat identification needs to be rooted in a normative typology enumerating distinct elements of the process. The CUS-CAPPSS conceptualization of the 'what' and 'how' dimensions of organizational change depicted in Figure 1 can be used as the starting point in the development of such a normative framework.

The CUS-CAPPSS conceptualization suggests that organizational change related threats could emerge in the context of 'focus of change' and 'aspect of change' dyads. For example, introduction of a discontinuously different organizational structure could be seen as very complex, thus giving rise to the possibility of failure of the change initiative. The resultant general threat, complexity of the new structure, can be further distilled by individual-specific (i.e., self-interest) and group-wide potential change inhibitors (Aune, 1995; Collins, 1998; Patora-Wysocka, 2015; Stadtler et al., 2010). The general 'complexity of the new structure' threat can be broken down into more narrowly defined person-specific and group-wide risks.

Focusing first on person-specific factors, individuals tend to resist change primarily because no change is truly value-free (Galpin, 1996; Judson, 1991), thus it can pose a threat to one's well-being (Lewin, 1947; Liu and Perrewe, 2005), which often manifests itself in cynicism toward proposed change (Albrecht, 2008). Those relatively abstract person-specific change inhibitors can be operationalized using the earlier discussed ADKAR model of organizational change management (Hiatt, 2006), which offers parsimonious yet complete assessment of the core resistance-to-change root causes. More specifically, the following five operationally specific but generalizable ADKAR model-derived factors suggest potential threats emanating from person-specific resistance to organizational self-change: 1. absent or insufficient *awareness* of the need for change; 2. insufficient *desire* to fully participate in the planned change; 3. insufficient *knowledge* of how to change one's behaviors and/or skills; 4. perceived lack of *ability* to acquire new skills and behaviors; and insufficient *reinforcement* of why, what and how to change (to make the change stick).

Somewhat harder to delineate are the group-wide potential change inhibitors, as those encompass a broad array of interpersonal interactions, as well as organizational processes and structures. Building on the cumulative wisdom of past research efforts captured in the 'aspects of change' summarization (Table 1), several distinct root causes can be delineated: change rationalization, clearly stated future state, the

scope of what is expected to change, the specifics of the desired future state, and an implementation roadmap. Those root causes in turn suggest the following group-wide inhibitors: 1. no compelling *change rationale*; 2. lack of clear *future state vision*; 3. *scope of change* ambiguity; 4. uncertainty regarding *specifics of the future state*; and no clear *implementation roadmap*.

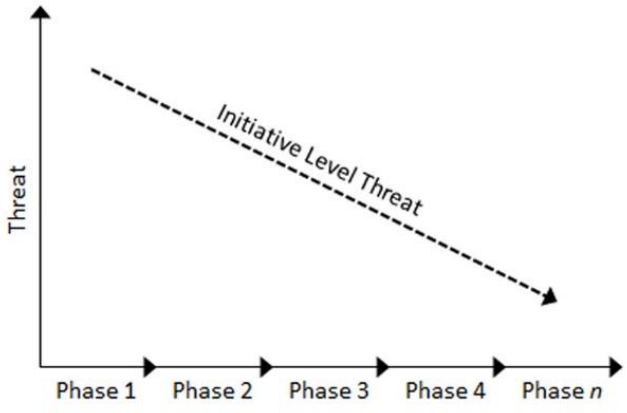
A more explicit recognition and acknowledgement of person-specific and group-wide change inhibitors would likely enhance the chances of success of self-imposed organizational change, especially in the case of large structural changes undertaken by large, matrixed firms. Consider the case of Circuit City, the once highly successful electronics retailer that climbed as high as number 151 (in 2003) on the Fortune 500 list of largest US companies, only to end up in bankruptcy five years later. The abrupt and poorly managed elimination of the company's commissioned sales force by means of unannounced firing of 3,900 of its highest earning salespeople (who were replaced with 2,100 hourly associates), not only crushed employee morale and productivity – it became one of the key contributors to the company's demise. A perhaps less egregious but nonetheless equally instructive example is offered by a large property and casualty insurance company that undertook sweeping organizational restructuring, starting in 2016. While the organization devoted considerable amounts of effort and resources to overcoming person-specific resistance to change, it did not adequately address group-wide inhibitors which led to considerable degree of role ambiguity, and, ultimately, attrition. In both cases, more holistic change-related risk identification would have likely yielded considerable economic benefits.

Threat Estimation

A 'typical' risk estimation problem focuses on assessing the probability and the impact adverse events (Banasiewicz and Weidman, 2016; Duckert, 2011), such as accidents or floods. Although many such events, exemplified by natural catastrophes such as hurricanes and manmade crises such as accounting scandals, are difficult to anticipate and thus estimate, as distinct events occurring at a point in time they nonetheless present clear estimation targets (Brinkmeyer, 2015; Ho et al., 2016). In contrast to that, planned organizational change manifests itself as a basket of activities spread over a period of time that, in total, do not exhibit the distinctiveness of risk events (Collins, 1998; Kanter et al., 1992; Nadler et al., 1992). In addition, process and outcome failures alike may not be immediately visible. More specifically, whereas the occurrence of an accident of another peril is immediately obvious, discerning that a change initiative has stalled (process threat) or did not produce the anticipated benefits (outcome threat) can be comparatively difficult, which further underscores the difference between risk as a perilous event and risk as the possibility of process or outcome failure. It thus follows that while the distinctiveness of the occurrence and consequence of peril-type risks can be aggregated into empirical distributions (Ho et al., 2016; Kundu and Nandi, 2012), ultimately giving rise to mathematically sound estimates of probability of occurrence and magnitude of impact (Banasiewicz and Weidman, 2016; Hussein, 2013; Lam, 2014), that is not the case for threats associated with planned change, which lack the discrete point-in-time characteristics.

Instead, self-imposed organizational change initiatives can be expressed as a process of mutually dependent successive stages, where the threat of failure of the overall initiative is expressed as the cumulative possibility of failure of individual process stages. Conceptualized in that manner, the threat of initiative-wide failure can be expected to decrease as successive stages are completed, as graphically illustrated in Figure 2.

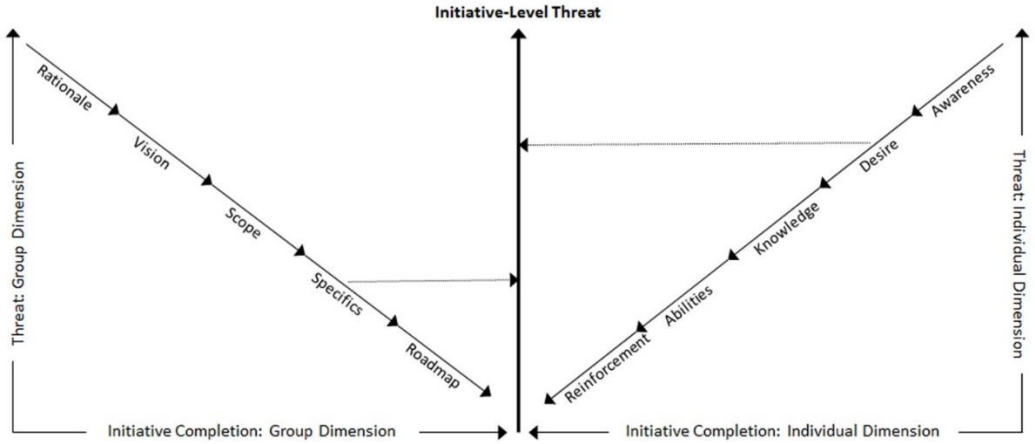
FIGURE 2
Generalized Initiative-Level Threat of Failure



The generalized idea depicted above is an oversimplification, but it reflects the rationale imbedded in change management conceptualizations discussed earlier (e.g., Galpin, 1996; Hiatt, 2006; Kotter, 1996). Recalling the five individual level inhibitors of organizational change derived from the ADKAR model (Hiatt, 2006), organizational constituents, most notably its employees, becoming *aware* of the need for change (represented by Phase 1 in Figure 2) can be construed as a necessary precondition for the development of *desire* to fully participate in the planned change (Phase 2), which, if successful, should then lead to openness to acquiring the necessary *knowledge* (Phase 3), the successful completion of which should in turn can be expected to compel an individual to develop the change-mandated *abilities* (Phase 4), finally paving the way for *reinforcement* related activities (Phase 5). As each successive stage is successfully completed, the chances of failure of the entire organizational change initiative decrease. The same reasoning applies to the five group-wide inhibitors of change, where clearly spelled out change rationale followed by well-articulated vision of the future state, scope of change, specifics of the future state, and the implementation roadmap can also be conceptualized as largely sequential phases; thus as each stage is completed, the organizational dimension-attributed threat of initiative level failure decreases. The two dimensions of organizational self-change can be assumed to be largely independent of each other, as evidence suggests that individual-level imperatives and group dynamics are driven by diverging considerations (Buki and Hornig, 2011; Franz, 2012; Volker and Lienhoop, 2016).

From the standpoint of threat assessment, the initiative-level possibility of failure can be conceptualized as a decreasing function of person-specific and group-wide dimensions of organizational change, as graphically illustrated below.

FIGURE 3
Change Initiative Threat Assessment



Independence of the two dimensions of organizational change, depicted above as two separate sets of Cartesian coordinates, suggests that the pace of transformation can vary, as shown by the two horizontal dotted lines. It follows that the initiative-level threat can be approximated by slower of the two completion rates, which in Figure 3 is the second stage (Desire). The greater the progress along both dimensions, the lower the overall risk of the change initiative failure, which initially is represented by the 'benchmark', derived from the average failure rate for similar initiatives. Putting it all together, the initiative level completion threat can be approximated as follows:

$$\text{Initiative Failure Threat} = \left(\frac{Max(PNC_g, PNC_i)}{PT_{lag}}\right) \times Benchmark_{mn}$$

where,

PNC_g = phases not yet completed – group-wide;
PNC_i = phases not yet completed – individual-specific;
PT_{lag} = total number of stages in the lagging dimension;
$Benchmark_{mn}$ = long-term failure rate for initiative *m* implemented in sector *n*;

As noted earlier, the above Initiative Failure Threat operationalization expresses the risk posed by an organizational self-change initiative as a function of the rate of completion of the slower paced of the group and individual dimensions of change (numerator), and the total number of change stages in the 'lagging' dimension (denominator). Stated differently, even if one of the two dimensions of change was fully completed, the initiative-wide threat would still be a function of the degree of incompletion of the other dimension.

Application and interpretation wise, the initial failure threat operationalization is comprised of two distinct parts: 1. the assessment of the change initiative's completion rate, and 2. a reference benchmark. The former, which assumes the value of '1' or 100% at the onset (denoting that none of the stages have yet been completed) is meant to communicate the potentiality of threat, which is the degree to which the current status of the initiative of interest creates a potential for the expected threat to materialize. The 'reference benchmark' contributes an a priori generalized expected initiative failure rate, which represents the long-term average failure rate of peer organizations implementing similar initiatives.

To illustrate the mechanics of the proposed self-change threat of failure estimation approach, let us assume that, on average, 30% of organizational restructuring efforts in a particular industry ultimately fail to deliver sought after benefits. Starting with that general benchmark as the initial threat estimate, an organization choosing to embark on a restructuring project could reasonably assume that it faces an

estimated chance of failure of roughly 30% at the onset of the project[3]. Subsequently, the initial 30% failure estimate would gradually diminish as the overall initiative completion rate begins to increase. When 4 out of 5 phases remain to be completed, that estimate could be reduced to 30% * 0.8 (4÷5), or 24%; when only a maximum of 3 phases remain, the threat estimate is further reduced to 18% (3÷5 *30%), and so on; once all phases of the initiative have been completed the initiative wide threat becomes 0% (e.g., 0÷5 *30%).

Benefits of embracing a more quantitatively tangible approach to gaging the progress of self-initiated transformations are particularly pronounced in situations where immediate feedback mechanisms are either unavailable or lend themselves to misinterpretation. The earlier discussed case of Yelp's failed reorganization was characterized by relatively immediate and unambiguous revenue and stock price valuation queues, which, luckily, prompted quick corrective action, yet the same signals were consistently missed or misinterpreted by the now defunct Circuit City and Radio Shack electronics retailers. The latter of the two also fell victim to a pattern of frequently changing turnaround directions, brought about by the underlying inability to reliably assess progress of individual change initiatives. And while root causes of those and other organizations' failures are numerous and varied, the inability to quickly assess the degree of adaption of structural and operational remedies clearly emerges as a common thread, just as the inability of vehicle operators to timely recognize obstacles is a common contributor to automotive collisions.

Stage-Level Threats

The next logical threat estimation step is to address the possibility of failure at the level of individual stages comprising the overall change initiative, but numerous challenges stand in the way. To better understand those impediments it is helpful to recall the two components of the 'initiative failure threat' operationalization discussed earlier: 1. change initiative's completion rate, and 2. the reference benchmark. Reducing the scope of estimation from initiative-wide to a stage-specific requires corresponding changes in the computational approach, which in turn calls for appropriate analogs. On the surface that would appear to be quite simple, but serious difficulties emerge upon closer examination.

To start with, analyzing the process of self-imposed organizational change at a more disaggregate level leads to confounding of generalizable (i.e., not unique to an organization or a situation) and non-generalizable, or situation-and-organization-specific factors, which ultimately obfuscates the applicability of external benchmarking. That is because even seemingly very similar organizations, most notably those that offer comparable mixes of products and/or services and directly compete with one another, are often distinguished by noticeably different organizational management styles and organizational cultures, and possibly even somewhat different operational systems and technological infrastructures. As a result, trying to implement a similar type of change may give rise to materially different sets of challenges across the otherwise similar organizations, ultimately greatly degrading the validity of cross-organization stage-of-change-initiative comparisons. Moreover, the definition of what constitutes 'failure' (or 'success', for that matter) is not universal, nor is its operationalization. The expected definitional and operational invariance is likely to be particularly pronounced in the context of the individual-level dimension of organizational self-change, given the inherent difficulty of objectively measuring emotional states of individuals. This challenge is well illustrated by the 'Desire' phase of the 5-step process depicted in Figure 3, which encapsulates individuals' emotional commitment to fully participate in the intended change. When attempting to assess that particular aspect of individual-level change readiness, organizations often utilize noticeably different data capture mechanisms – for instance, one organization might elect to survey all change-affected employees using Likert (i.e., degree of agreement) scales, while another organization may rely on managers' assessment of employees' desire to participate in the planned change, and yet another one might choose to utilize qualitative techniques, such as focus groups. In the end, a group of similar organizations trying to enact comparable types of changes is likely to utilize

substantially different measurement approaches, making any stage-of-the-change-initiative based side-by-side comparisons difficult, if not outright impossible.

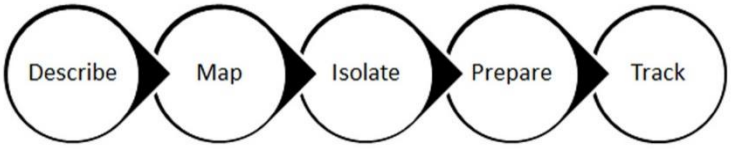
Lastly, timing differences could also lead to skewed comparisons – change takes time, but how much? Even if the just discussed measurement differences were controlled for (by means of using the same method across organizations), the choice of 'when' to measure could have a material impact on findings. All considered, the nature of self-imposed organizational change may effectively impose 'granularity limits' on the assessment of threat of failure, effectively limiting it to the initiative level of analysis.

Threat Response

The ultimate goal of organizational risk management is twofold: Firstly, it is to prevent the occurrence of those adverse events that can be avoided, and secondly to minimize the impact of those that cannot be avoided (COSO, 2004; ISO 31000, 2009). Once identified and assessed, each distinct risk calls for a planned response, which can take the form of one or more of the following: 1. avoidance, or refraining from risk event precipitating activities, 2. reduction, or lessening the risk's chance of occurrence, 3. transfer, or contractual reassignment of economic loss responsibility, and 4. acceptance, or acknowledgement of the risk and assumption of responsibility for its consequences (Banasiewicz and Weidman, 2016; Duckert, 2011; Fraser and Simkins, 2010; Millis, 2013). The *avoid-reduce-transfer-accept* typology offers an excellent summation of broad strategies for responding to episodic risks – it is, however, poorly suited to the task of managing threats emanating from planned organizational change. There are two reasons for that: First, the typology sees risks as perilous events to be dodged which, as discussed earlier is conceptually and operationally different from threats posed by planned change. Second, threat avoidance is not a viable response mechanism because doing so would effectively mean foregoing the planned change; similarly, threat transfer is also not viable due to lack of clear event triggers that are typically called for by insurance and other risk transfer arrangements (Borghesi and Gaudenzi, 2013; Culp, 2004; Treby, 2006).

Recalling that the principal goal of managing organizational self-change, which is to assure successful transformation of organizational culture, assets, people, processes, strategies and/or structure, appropriate threat response mechanism should thus be built around the general notion of 'change process support'. An outline of the proposed threat response framework is graphically shown in Figure 4.

FIGURE 4
Organizational Self-Change Threat Response Framework



The point of departure in the 5-step process outlined above – *describe* – entails developing a comprehensive and detailed understanding of the envisioned change process, to be followed by carefully *mapping* out all process step specific requirements and dependencies. The next step is to *isolate* all actors who both impact and are impacted by the envisioned change (i.e., can potentially inhibit the desired change), followed by *preparing* a plan to overcome the anticipated change resistance. The last step in the process – *tracking* – is focused on systematic gathering and communication of change process progress information.

Implicit in the above threat response framework is that perception of those conducting the assessment can shape the organizational *control outlook*, which is a combination of how threat related information is processed, and what response posture it precipitates. The more subjective the evaluation, the greater the

chance of a bias resulting from cross-individual differences in perception of intangible outcomes (Kareev and Trope, 2011; Muren, 2012). Although perceptual biases can have numerous root causes (Bar-Eli, 2011; Bocanegra et al., 2012; Nye and Brower, 1996), one's cultural background, or the totality of socially transmitted norms and behaviors (Eagleton, 2016; Hagan et al., 2012) frequently emerges as the leading contributor (Craig, 2007; Houghton, 1991; Kalliopi and Spyros, 2013). As suggested by the cultural theory, which offers a framework for understanding the impact of cultural differences on, among others, managers' control posture, there are four major, culture-shaped control outlook prototypes: individualists, hierarchists, egalitarians, and fatalists (Featherstone, 1992; Lenz, 2016; Thompson and Ellis, 1990). Individualists' decisions are generally unconstrained by the demands of the organization at large; as change managers, those individuals tend to feel empowered to take steps necessary to mitigate any observed threats, which is in stark contrast to chain of command focused hierarchists, who tend to await explicit directives. Egalitarians, on the other hand, favor more democratic decision-making, thus are inclined to build consensus regarding appropriateness of threat response related courses of action. The last of the four culture-shaped control outlook types, the fatalists, are characterized by 'there is little that can be done' mindset, hence tend to be inclined to simply accept the consequences of the identified threats. Although very broad generalizations, the culture inspired prototypes are nonetheless suggestive of potentially meaningful impact of individual-level differences on organizational threat response posture.

By and large, business organizations' risk mindset is stuck on equating risk with perilous events that are to be avoided, which results in lack of adequate threat of failure of attempted change planning. Yet, successful transformation of organizational culture, assets, people, processes, strategies and structure requires not only timely and effective impediment identification, but also the identification of appropriate response means and mechanisms. For instance, due to their limited understanding of organizational culture, the often outside (to the organization) change management consultants may not fully account for the 'goodness-of-fit' between the prevailing organizational culture and the change-leading managers' control outlook. Similarly, managers' control posture often plays a profound role in events such as mergers and acquisitions, explaining why seemingly synergistic combinations fail to deliver the anticipated benefits.

CONCLUSIONS

While attempts to clearly formulate the notion of 'change' go as far back as pre-Socratic Greek philosophers, the first formal conceptualizations of 'planned change' only date back to the 1940s and the work of Kurt Lewin. The formal attempts to manage 'planned organizational change' are even more recent, beginning to crystalize as an applied business discipline in the 1970s and 1980s, initially in response to the often-disruptive adaptions of the newly emerging electronic data and communication technologies. Although generally viewed as a gain-producing endeavor, planned organizational self-change inescapably gives rise to the possibility of adverse developments, which can take the form of either process or outcome failure. Yet in spite of the potentially significant economic dangers associated with failed change initiatives, self-imposed organizational change has yet to be recognized as a distinct element of enterprise risk management.

Building on the rich body of academic and applied risk management and organizational change related research, the research summarized in this article frames planned organizational changes in the context of two meta-dimensions of CUS, or *c*omplexity, *u*nit and *s*cope of change, and CAPPSS, or *c*ulture, *a*ssets, *p*rocess, *p*eople, *s*trategy and *s*tructure. Moreover, it proposes an explicit quantitative threat of change initiative assessment operationalization, aimed at enabling organizational managers to more precisely and more timely gage the success of undertaken planned change initiatives. Taken in its entirety, the proposed conceptualizations and operationalizations contribute a formal threat of planned organizational change assessment mechanism, aimed at compelling risk researchers to broaden their conception of 'organizational threats', and also at compelling management practitioners to explicitly consider those threats when tallying the totality of risks confronting their organizations.

Lastly, the motivation behind the research reported here also manifests itself in the desire to expressly link identification of threats emanating from self-imposed organizational change with rational, well-informed and explicit threat response actions. The ‘problem-solution’ orientation of the research presented here is hoped to encourage and enable practical utilization of ideas outlined here, offering business managers as well as change and risk management professionals an easy to deploy set of problem solving and management tools.

REFERENCES

Albrecht, S. 2008. Measuring cynicism toward organizational change – One dimension or two? *Journal of Applied Measurement,* 9(4): 374-386.

Aldrich, H. 1999. *Organizations evolving.* London: Sage Publications.

Alkhafaji, A. F. 2001. *Corporate transformation and restructuring: A strategic approach.* Westport: Quorum Books.

Amado, G., Ambrose, A., Amato, R., Bridger, H. & Trist, E. L. 2001. *The transitional approach to change.* London: Karnac Books.

Ashkanasy, N. M, Wilderom, C. & Peterson, M. F. 2011. *The handbook of organizational culture and climate.* 2nd ed., Thousand Oaks: Sage.

Argyris, C. 1992. *On organizational learning.* Oxford: Blackwell.

Armenakis, A., Harris, S. & Field, H. 1999. Paradigms in organizational change: Change agents and change target perspectives. In R. Golembiewski (Ed.), *Handbook of organizational behavior:* New York: Marcel Dekker.

Aune, B. P. 1995. The human dimension of organizational change. *Review of Higher Education.* (18)2: 149-173.

Back, K. W. 1992. This business of topology. *Journal of Social Issues.* 48(2): 51-66.

Banasiewicz, A. D. 2015. The ecosystem of executive threats: A conceptual overview. *Risk Management.* 17(2): 109-143.

Banasiewicz, A. D. & Weidman, D. 2016. *Total exposure management: Risk, resilience, change.* Bristol: Erudite Analytics.

Bar-Eli, M., Plessner, H. & Raab, M. 2011. *Judgment, decision making and success in sport.* Malden: Wiley.

Battilana, J., Gillmartin M., Sengul, A. C., Pache, J. & Alexander, A. 2010. Leadership competencies for implementing planned organizational change. *The Leadership Quarterly.* 21: 422-438.

Beauvois, J. L. 2001. Rationalization and internalization: The role of internal explanations in attitude change and the generation of an obligation. *Swiss Journal of Psychology.* 60(40): 215-230.

Beer, M. & Nohria, N. 2000. Cracking the code of change. *Harvard Business Review.* May-June: 133-141.

Bertin, E., Crespi, N. & Magedanz, T. 2013. *Evolution of telecommunication services. The convergence of telecom and internet: Technologies and ecosystems.* New York: Springer.

Black, J. 2000. Fermenting change: Capitalizing on the inherent change found in dynamic non-linear (or complex) systems. *Journal of Organizational Change Management.* 13(6): 520-525.

Blatz, M., Kraus, K. J. & Haghani, S. 2006. *Corporate restructuring finance in times of crisis.* New York: Springer.

Bocanegra, B. R, Huijding, J., Zeelenberg, R. & Desteno, D. 2012. Beyond attentional bias: A perceptual bias in dot-probe task. *Emotion.* 12(6): 1362-1366.

Bojeun, M. C. 2013. *Program management leadership: Creating successful team dynamics.* Boca Raton: CRC Press.

Boonstra, J. J. 2013. *Cultural change and leadership in organizations: A practical guide to successful organizational change.* Malden: Wiley.

Borghesi, A. & Gaudenzi, B. 2013. *Risk management: How to assess, transfer and communicate critical risks.* New York: Springer.

Brinkmeyer, H. 2015. *Drivers of bank lending: New evidence from the crisis.* Wiesbaden: Springer.
Brown, S. L. & Eisenhardt, K. M. 1997. The art of continuous change: Linking complexity theory and time-paced evolution in relentlessly shifting organizations. *Administrative Science Quarterly.* 42: 1-34.
Buki, A. & Hornig, J. 2011. Group dynamics. *ASEE Prism.* 20(9): 19.
Burnes, B. 2004. Kurt Lewin and the planned approach to change: A re-appraisal. *Journal of Management Studies.* 41(6): 977-1002.
Chew, Y. T. & Choo, S. M. 2008. A study of the change management and challenges in a bank. *Research and Practice in Human Resource Management.* 16(2): 100-118.
Choi, D., Oh, I. S. & Colbert, A. E. 2015. Understanding organizational commitment: A meta analytic examination of the roles of the five-factor model of personality and culture. *Journal of Applied Psychology.* 100(5): 1542-1567.
Collins, D. 1998. *Organizational change.* London: Routledge.
COSO Enterprise Risk Management – Integrated Framework (Committee of Sponsoring Organizations of the Treadway Commission, 2004).
Craig, R. T. 2007. Issue forum introduction: Cultural bias in communication theory. *Communication Monographs.* 74(2): 256-258.
Culp, C. 2004. *Risk transfer: Derivatives in theory and practice.* Hoboken: Wiley.
Darwin, C. 1859. *On the origins of species by means of natural selection.* London: J. Murray.
Dawson, P. 1994. *Organizational change: A processual approach.* London: Paul Chapman Publishing.
Deming, W. E. 1981. Improvement of quality and productivity through action by management. *National Productivity Review*. 1 (1): 12.
Deming, W. E. 1994. The need for change. *The Journal for Quality and Participation*. 7: 31.
Dent, E. B. & Goldberg, S. G. 1999. Challenging resistance to change. *Journal of Applied Behavioral Science.* 35(1): 25-41.
Donohue, J. J. & Heckman, J. 1991. Continuous vs. episodic change: The impact of civil rights policy on the economic status of blacks. *Journal of Economic Literature*. 29(4): 1603-1643.
Doria, N. 1982. Problems of reorganization. *Personnel Administrator*. 27: 16-18.
Duckert, G. H. 2011. *Practical enterprise risk management: A business process approach.* Hoboken: Wiley.
Dunphy, D. C. & Stace, D. A. 1988. Transformational and coercive strategies for planned organizational change: Beyond the OD model. *Organization Studies*. 9(3): 317–334.
Eagleton, T. 2016. *Culture.* New Haven: Yale University Press.
El Sawy, O. A. & Pereira, F. 2013. *Business modeling in the dynamic digital space: An ecosystem approach*. New York: Springer.
Elrod, P. D. II & Tippedd, D. D. 2002. The Death Valley of change. *Journal of Organizational Change Management*. 15(3): 273-291.
Featherstone, M. 1992. *Cultural theory and cultural change.* London: Sage.
Franz, T. M. 2012. *Group dynamics and team interventions: Understanding and improving team performance.* Malden: Blackwell Publishing.
Fraser, J. & B. J. Simkins 2010. *Enterprise risk management.* Hoboken: Wiley.
Fritzenschaft, T. 2014. *Critical success factors of change management: An empirical research in German small and medium-sized enterprises.* Wiesbaden: Springer Gabler.

Frost, J., Osterloh, M. & Weibel, A. 2010. Governing knowledge work: Transactional and transformational solutions. *Organizational Dynamics*. 39(2): 126-136.
Galpin, T. 1996. *The human side of change: A practical guide to organizational redesign.* San Francisco: Jossey-Bass.
Garvin, D. A. 1993. Building a learning organization. *Harvard Business Review.* July-August: 78-91.
Gooderham, G. 1991. Organizational restructuring. *CMA–the Management Accounting Magazine*. 65(4): 12.
Guerriero, F., Miglionico, G. & Olivito, F. 2016. Location and reorganization problems: The Calabrian health care system case. *European Journal of Operations Research*. 250(3): 939-954.
Hagan, L. P., Flanagan, S. A. & Witta, L. E. 2012. Culture. *The International Journal of Interdisciplinary Social Sciences*. 6(9): 37-48.
Hahn, R. & Ince, I. 2016. Constituents and characteristics of hybrid businesses: A qualitative, empirical framework. *Journal of Small Business Management*. 54(S1): 33-52.
Hannan, M. T. & Freeman, J. 1988. *Organizational ecology.* Cambridge: Harvard University Press.
Hendry, C. 1996. Understanding and creating whole organizational change through learning theory. *Human Relations*. 48(5): 621-641.
Hiatt, J. M. 2006. *ADKAR: A Model of change in business, government and our community.* Loveland: Prosci Research.
Higgs, M. & Rowland, D. 2005. All changes great and small: Exploring approaches to change and its leadership. *Journal of Change Management*. 5(2): 121-151.
Ho, A. T. Y., Huynh, K. P. & Jacho-Chavez, D. T. 2016. Flexible estimation of copulas: An application to the US housing crisis. *Journal of Applied Econometrics*. 31(3): 603-610.
Houghton, J. W. 1991. *Culture and currency: Cultural bias in monetary theory and policy.* Boulder: Westview Press.
Huczynski, A. & Buchanan, D. 2001. *Organizational behavior,* 4th ed. Upper Saddle River: Prentice Hall.
Hughes, M. 2016. *The leadership of organizational change.* New York: Routledge.
Hurst, D. K. 1995. *Crisis and renewal: Meeting the challenge of organizational change.* Boston: Harvard Business School Press.
Hussain, O. K. 2013. *Risk assessment and management in the networked economy.* New York: Springer.
IBM Global Business Services. 2008. Making Change Work.
ISO 31000: Risk Management – Principles and Guidelines. (The International Organization for Standardization, Geneva, 2009).
Judson, A. 1991. *Changing behavior in organizations: Minimizing resistance to change*. Cambridge: Basil Blackwell.
Kalliopi, A. & Spyros K. 2013. Exploring citizens' intention to use e-government services: The role of cultural bias. *International Journal of Electronic Governance*. 6(1): 3-19.
Kanter, R. M., Stein, B. A. & Jick, T. D. 1992. *The challenge of organizational change.* New York: Free Press.
Kareev, Y. & Trope, Y. 2011. Correct acceptance weighs more than correct rejection: A decision bias induced by question framing. *Psychonomic Bulletin & Review*. 18(1):103-109.

Kelman, H. 1958. Compliance, identification, and internalization: Three processes of attitude change. *The Journal of Conflict Resolution*. 2(1): 51.
Klein, H. J., Becker, T. E. & Meyer, J. P. 2009. *Commitment in organizations: Accumulated wisdom and new directions.* New York: Routledge.
Kotter, J. 1996. Leading change: Why transformation efforts fail. *Harvard Business Review*. 73(2): 59-67.
Kundu, D. & Nandi, S. 2012. *Statistical signal processing frequency estimation.* New York: Springer.
Lam, J. 2014. *Enterprise risk management: From incentives to controls*, 2nd ed. New York: Wiley.
Lenz, S. A. 2016. Relational-cultural theory: Fostering the growth of a paradigm through empirical research. *Journal of Counseling & Development*. 94(4): 415-428.
Lewin, K. 1939. Field theory and experiment in social psychology. *American Journal of Sociology*. 44(6): 868-896.
Lewin, K. 1943. Psychological ecology. In Cartwright, D. (Ed.), *Field Theory in Social Science.* London: Social Science Paperbacks.
Lewin, K. 1947. Group decisions and social change. In Newcomb, T. M. & Hartley, E. L. (Eds.), *Readings in Social Psychology.* New York: Henry Holt.
Lewis, R. 1994. From chaos to complexity: Implications for organizations. *Executive Development*. 7(4): 16-17.
Linstead, A., Beech, N. & Sims, D. 2007. *Exploring identity: Concepts and methods.* New York: Palgrave Macmillan.
Liu, Y. & Perrewe, P. L. 2005. Another look at the role of emotion in the organizational change: A process model. *Human Resource Management Review*. 15: 263-280.
Lopez-Lubian, F. J. 2014. *The executive guide to corporate restructuring.* New York: Palgrave Macmillan.
Marshak, R. 1993. Managing the metaphors of change. *Organizational Dynamics*. 22(1): 44-56.
Marshak, R. 2005. Contemporary challenges to the philosophy and practice of organizational development. In Bradford, D. L. & Burke, W. W. (Eds.) *Reinventing organization development: New approaches to change in organizations*. Hoboken: Wiley.
McInerney, C. R. & Koenig, M. E. 2011. *Knowledge management (KM) processes in organizations: Theoretical foundations and practice.* San Rafael: Morgan & Claypool.
McKinsey & Company. 2010. What successful transformations share: McKinsey global survey results.
Messinger, B. & Havely, J. 2013. How to improve your odds for successful change management. Towers Watson.
Miazga, M. 2015. Adapting to change. *Supply House Times*. 58(5): 6.
Mills, G. 2013. Risk assessment process: A seven-step approach. Joint Commission Perspectives. *Joint Commission on Accreditation of Healthcare Organizations*. 33(3): 5-7.
Mimiko, F. N. O. 2005. Globalization, economic crisis, and social dislocation in changing contexts: A comparative study of Mexico, South Korea, and South Africa. *Korea Observer*. 36(4): 657-686.
Mullins, L. 2002. *Management and organizational behavior,* 6th ed. Harlow: FT/Pearson.
Muren, A. 2012. Optimist behavior when a decision bias is costly: An experimental test. *Economic Inquiry.* 50(2): 463-469.

Nadler, D., Gerstein, M. S. & Shaw, R. B. 1992. *Organizational architecture: Designs for changing organizations.* San Francisco: Jossey-Bass.
Nadler, D., Shaw, R. B. & Walton, E. A. 1995. *Discontinuous change: Leading organizational transformation.* San Francisco: Jossey-Bass.
Nonaka, I. 1988. Creating organizational order out of chaos: Self-renewal of Japanese firms. *Harvard Business Review*. November-December: 96-104.
Nye, J. L. & Brower, A. M. 1996. *What's social about social cognition? Research on socially shared cognition in small groups.* Thousand Oaks: Sage.
Offer, J. 2010. Social change and selectionist thought: On Spencer, Darwin and Runciman. *Sociological Review*. 58(2): 305-326.
Olson, S. L. & Lunkenheimer, E. 2009. *Expanding concepts of self-regulation to social relationships: Transactional processes in the development of early behavioral adjustment.* Washington: American Psychological Association.
Patora-Wysocka, Z. 2015. Inhibitors of restructuring change in textile and apparel enterprises. *Fibres & Textiles in Eastern Europe*. 23(5): 8-12.
Pettigrew, A. M. 1980. The Politics of organizational change. In Anderson, N. B. (Ed.), *The human side of information processing.* Amsterdam: North Holland.
Pettigrew, A. M., Ferlie, E. & McKee, L. 1992. *Shaping strategic change.* London: Sage.
Pezzuto, I. 2013. *Predictable and avoidable: Repairing economic dislocation and preventing the recurrence of crisis.* Surrey: Gower Publishing.
Pheysey, D. C. 1993. *Organizational culture types and transformations.* London: Routledge.
Phillips, J. 1983. Enhancing the effectiveness of organizational change management. *Human Resource Management*. 22(1-2): 183-199.
Prochaska, J. O. & DiClemente, C. C. 1983. Stages and processes of self-change of smoking: Toward an integrative model of change. *Journal of Consulting and Clinical Psychology*. 51(3): 390-395.
Prochaska, J. O., DiClemente, C. C. & Norcross, J. C. 1992. In search of how people change: Applications to the addictive behaviors. *American Psychologist*. 47: 1102-1114.
Romer, D. and Hendrick, C. 1979. Internalization vs. identification in the laboratory: A causal analysis of attitude change. *Journal of Personality and Social Psychology*. 37(12): 2171-2180.
Rowden, R. W. 2001. The learning organization and strategic change. *SAM Advanced Management Journal*. 66(3): 11-24.
Scrima, F., Di Stefano, G., Guarnaccia, C. & Lorito, L. 2015. The impact of adult attachment style on organizational commitment and adult attachment in the workplace. *Personality and Individual Differences*. 86: 432-437.
Seo, M. G., Taylor, S. M., Hill, S. N., Zhang, X., Tesluk, P. E & Lorinkova, N. M. 2012. The role of affect and leadership during organizational change. *Personnel Psychology*. 65(1): 121-165.
Skipton, L. H. 2013. *The Wiley-Blackwell handbook of the psychology of leadership, change and organizational development.* Hoboken: Wiley-Blackwell.
Smith, M. E. 2002. Success rates for different types of organizational change', *Performance Improvement*. 44(1): 26-35.
Smith, R. 2015. *The effective change manager's handbook: Essential guidance to the change management body of knowledge,* London: Kogan Page.

Stadtler, L., Schmitt, A., Klarner, P. & Straub, T. 2010. *More than bricks in the wall: Organizational perspectives for sustainable success.* New York: Springer.
Stickland, F. 1996. Business process change: A systems thinking perspective. *World Futures*. 47(1): 69-77.
Stickland, F. 1998. *The dynamics of change: Insights into organizational transition from the natural world.* London: Routledge.
Taylor, L. 2014. *Practical enterprise risk management: How to optimize business strategies through managed risk taking.* Philadelphia: Kogan Page.
Thompson, M. & Ellis, R. J. 1990. *Cultural theory.* Boulder: Westview Press.
Tichy, N. & Devanna, M. A. 1990. *The transformational leader,* 2nd ed. New York: Wiley.
Tourish, D. 2013. *The dark side of transformational leadership: A critical perspective.* New York: Routledge.
Treby, E. J., Clark, M. J. & Priest, S. J. 2006. Confronting flood risk: Implications for insurance and risk transfer. *Journal of Environmental Management*. 81(4): 351-359.
Van de Ven A. H. & Poole, M. S. 1995. Explaining development and change in organizations. *Academy of Management Review*. 20(3): 510-540.
Van Den Heuvel, M., Demerouti, E., Bakker, A. B. & Schaufeli, W. B. 2013. Adapting to change: The value of change information and meaning-making. *Journal of Vocational Behavior*. 83(1): 11-21.
Volker, M. & Lienhoop, N. 2016. Exploring group dynamics in deliberate choice experiments. *Ecological Economics*. 123: 57-67.
Weick, K. E. & Quinn, R. E. 1999. Organizational change and development. *Annual Review of Psychology*. 50(1): 361-386.
Wheelwright, P. E. 1959. *Heraclitus.* Princeton: Princeton University Press.
Wilson, D. C. 1992. *A strategy of change.* London: Routledge.
Wilson, J. & Hynes, N. 2009. Co-evolution of firms and strategic alliance: Theory and empirical evidence. *Technological Forecasting and Social Change*. 76(5): 620-628.
Xinyin, C. & Rubin, K. H. 2011. *Socioemotional development in cultural context,* New York: Guilford Press.

NOTES

[1] This estimate is derived from several applied research studies including a recent (2013) study by Towers Watson consultancy which found that only about 30% of change management initiatives were successful over the long term, which is in line with an earlier (2010) McKinsey's survey of business executives which also concluded that about 30% of change program were successful in the long term, while the 2008 IBM study estimated that nearly 60% of projects aimed at achieving business change did not fully meet their objectives.

[2] Perhaps the most widely used framework is comprised of five distinct steps of identification, estimation, mapping, response, and capitalization (Banasiewicz and Weidman, 2016; Lam, 2014); however, a broader 7-step process has also been proposed: Risk assessment framework implementation, delineation of risk managers' responsibilities, risk identification, threat estimation, risk response, risk incidence recording, risk profile update (Mills, 2013).

[3] 30%*1, where '1' is the initial (since 5 out of the total of 5 phases are yet to be completed) potentiality of the 30% threat of failure materializing.