Breaking of Path Dependence to
Create Innovative Organizations: The Role of
Constellation of Transformational Leadership (CTL)
Breaking of Path Dependence to
Create Innovative Organizations: The Role of
Constellation of Transformational Leadership (CTL)

by

P S James
Professor, HR Area
T. A. Pai Management Institute, Manipal
Manipal- 576 104, Karnataka
Phone: 0820 2701058
Email: james@tapmi.edu.in

TAPMI Working Paper No. TWP 91/2012-13

T. A. PAI Management Institute
Manipal – 576104, Karnataka
Breaking of Path Dependence to Create Innovative Organizations:
The Role of Constellation of Transformational Leadership (CTL)

By

P.S. James

Professor, HR Area
T.A. Pai Management Institute,
Manipal -576104, Karnataka
Phone: 0820-2701058
Email: james@tapmi.edu.in

Abstract:

There is growing evidence that in the information age, Innovative organizations are an antecedent to sustained competitive advantage; however organizations find it difficult to transform. Path dependence theory is used to explain the emergence of radical new organizations as also difficulty of the established ones to transform. This study while accepting path dependence argues that valence of internal force, namely constellation of transformational leadership (CTL) also has the power to create new path. It proposes that the difference in the valence of CTL and entrenching factors would predict the way an organization transforms into an innovative one. The study has implications for planning and predicting organizational transformation.

Key words: path dependence, entrenching factors, innovative organization, constellation of transformational leadership, competitive advantage.
Breaking of Path Dependence to Create Innovative Organizations:
The Role of Constellation of Transformational Leadership (CTL)

Information age has seen the ascendency of a number of new organizations such as Google, Facebook and Biocon of India with rapid rise in value (market capitalization) while relative eclipse or even death of others such as Nissan, Enron, Lehman Brothers, BPL of India and transformation of yet others like GE, Citibank as also Tata and Mahindra (both from India). While path dependence theory (David, 1985) and the concept of external radical shock enshrined therein has the power to explain the emergence of radical new organizations and eclipse of the established ones, it is insufficient to explain why some organizations are able to innovate and transform under similar conditions, while others are not. This paper addresses this gap and postulates that the valence created by a constellation of transformational leaders (CTL) can result in breaking the determinism of path dependence.

Consider these real world examples. Hindustan Motors was India’s leading car manufacturer till 1980 after which it ironically eclipsed while the Indian car market began its unprecedented boom. So did Motorolla. Kodak despised Steve Sasson’s digital version with the comment, “that is cute. But do not show anyone” did no better. Yahoo, the first real search specialist is struggling to keep pace while its younger competitor Google is surging ahead. After a near debacle, both GE and Apple worked their way up and re-established their business leadership. Transforming into an innovative organization or failure to do so appears to be at the core of these successes or failures. Tranfield et al. (2003) suggests that innovation is a core renewal process within organizations and a corner stone for competiveness. Innovation can be defined as the development and implementation of a new idea which of course manifest in terms of a product or a process that increases economic value in the value chain (Schroeder et al., 1986; Bercovitz and Feldman, 2007). There is plethora of studies supporting the importance of innovations in organizations (March, 1991; Zahra and Das, 1993; Peeters and van Pottelsberghe de la Potterie, 2006; Bercovitz and Feldman, 2007; Brem and Voigt, 2009). There is also literature to support the importance of ambidextrous innovation by which we mean the ability to innovate on incremental basis or exploitative innovation) and breakthrough innovations or explorative innovations (Tushman and
taking place concurrently in an organization. If innovations are so crucial to corporate competitiveness, the question is why despite this wealth of knowledge, cases of failure to innovate and change the path abound in history as illustrated in the cases above reaching perhaps an interesting pinnacle in the Palo Alto Research Centre (PARC) of Xerox which invented path breaking technologies such as personal computer, pdf format and laser printer, none of which gave any competitiveness to Xerox. An even more interesting question is why some organizations are able to create a new path while others fail to do so even when the external environment is similar.

Vijay Govindarajan, a professor at Dartmouth's Tuck School of Business and co-author of “The Other Side of Innovation” (Govindrajan and Temple, 2010) explains this enigma when he states that successful companies tend to fall into three types of traps- (1) physical trap which leads to big investments in old systems, (2) psychological trap in which the leadership fail to notice the emerging change displacing the existing business and (3) strategic trap in which they focus only on today’s market place and fails to anticipate future. Though Govindarajan’s remark of ‘trap’ is perhaps apt to explain this phenomenon it does not fully explain why they actually get into such traps. A critical examination of path dependence gives some insight into this.

Path dependence states that evolution of a process is governed by its own history (David, 1985 and 2007). The root notion of path dependence is that some of the earlier steps can lead to less efficient solutions subsequently and these may get stabilized i.e., contemporary behaviour is constrained by the aggregation of past actions and decisions and that innovation takes places within this framework or boundary (Weir 1992). A path commences because of some contingent new events e.g., technology resulting in the emergence of digital camera business or search engines like that of Google or Yahoo; but as it progresses, the path gets stabilized, reproduced and entrenched i.e., more and more embedded in the processes, systems and practices rather than create contingent new path despite contingent new events (David, 2007; Crouch 2005). Although concept of path dependence does not fully describe how the constraints are structured, replicated in the subsequent system or how they get transformed, it renders a good explanation of why organizations find it difficult to transform. There has been little focus on the mechanisms that create this or on the analytical description how the institutional systems persist,
resist and become entrenched (Crouch, 2005; Crouch and Farrell, 2002; Morgan, 2005), but there have been several arguments as to why path dependence and entrenchment takes place.

Firstly, path dependence can exist if there is increasing return which leads to its entrenchment (Mahoney, 2000 and Pierson, 2000). If that be so, the converse, i.e., decreasing return would lead to creation of a new path should be true; but companies like Hindustan Motors makes the converse suspect. The logic that justifies the creation of the beginning of a path, i.e., contingent new events, appears to be very different from the logic of its stabilization and entrenchment. Path dependence thus indicates that there is clear distinction between the beginning, reorientation and transformation of the path. Increasing return argument in favour of stability creation of the path is logical; but this logic is insufficient to explain entrenchment when we consider that, in general, the organizations know that new events are occurring, that the current environment is uncertain, and that current returns do not necessarily assure future returns.

Secondly, path dependence suggests that the early stages in the path are contingent, but the same logic does not apply as time passes because it becomes deterministic and ceases to retain its contingent nature. For example consider a ‘first mover’ into the market like Hindustan Motors and their Ambassador cars in the Indian market, Kodak and their film based cameras or Motorola and their mobile telephones and that decreasing returns did not create breaking of the path. Although there may be higher initial set up cost, subsequent learning, coordination effects, economies of scale and scope, adaptations that passage of time facilitates etc. give more return on investment and makes the path more deterministic. This becomes stronger when stake holders in the particular institution, who with passage of time, imbibe the determinism and comfort of stability expect others in the constellation to adopt the path and support them (Mahoney, 2000; Pierson, 2000 and Deeg, 2001). This perhaps explains actions like that of Kodak management shunning the digital photography invention made by its own employee.

Thirdly, institutional power and policy feedback also play a role in the determinism that creeps into the path (Mahoney 2000). Institutionally embedded power resources are unspecific e.g., the way and the degree to which the players in the institution can
mobilize different resources depends strongly on the particular actor constellation at a given point of time (Djelic 1998; Jacoby 2000).

Fourthly, legitimacy-seeking and socialization are two other mechanisms which further tend to reinforce and stabilize emerging path dependence. The sociological literature emphasizes the importance of these mechanisms for institutional stability (Berger and Luckmann, 1967; Meyer and Rowan, 1977; DiMaggio and Powell, 1991; Tolbert and Zucker, 1996). It is important to connect this to path dependence (Djelic and Quack, 2007). Logic of “appropriateness” and normative and cognitive alignment underlie the quest for legitimacy or socialization processes (March and Olsen 1998). Champions in the organization need to secure the support and legitimacy of others and this mechanism is similar to what is found in sociological literature and is applicable to business also. While legitimacy-seeking and socialization helps in creating new path and its stabilization, it also leads to entrenchment.

Fifthly, Johnson (2001) argues that “structure-based theories” point to the fact that “conditions of uncertainty typically reinforce old networks and patterns, as people turn towards the familiar and the safe”, rather than find new solutions under those conditions. Therefore under conditions of uncertainty, old network reinforcement of the actor constellation could impede finding contingent new path.

Sixthly, Institutions are complex with, have multiple subsystems and stabilize through complementarities, interdependence and coherence of the subsystems, which reinforce each other and this leads to entrenchment (Djelic and Quack, 2007).

Thus it appears that implicitly the path theory nearly propagates that moments of change or radical reorientation are difficult and rare. Contingent developments or pressures are seen as external to the system and these external shocks force de-entrenchment and ending of the path; but the very logic of path dependence is entrenchment, stability and reproduction (Mahoney, 2000). It is possible to look at ‘critical moments’ like the fall of Indian foreign exchange reserve in 1991, the housing loan bubble of 2008 or the economic crisis of Europe in 2012 and see them as real breaking points and the ‘contingent new beginnings’. They open the way to new and different paths (Stark, 1992 and Johnson, 2001). However, Stark and Bruszt (1998) argue
that the weight of the past and pre-existing paths or the degree of determinism, strongly constrain and limit the impact of even the most radical shake up because of path dependence.

The summary of key ideas related to path dependence literature discussed above is (1) though contingent events begin a path, subsequent contingent events, rather than create a new path, creates entrenchment, (2) even the most radical external shock tends to have little impact on determinism and entrenchment and (3) entrenchment is a function of expectations of others in the constellation to adopt the existing path and support them, institutional power and policy feedback, legitimacy-seeking and socialization mechanism in the organization, tenants of structure-based theories and complexity created by multiple sub-systems, which combined we term ‘entrenchers’. However, despite the strong logic of path dependence concept, it fails to explain why some organizations are able to innovate and create new path while others get entrenched although facing similar environment. Therefore the concept requires further examination.

Examination of this issue indicates that there is growing evidence that determinism created by entrenchers is temporary and that entrepreneurs, leaders and champions of technology often create new path. Evolutionary biology tells us that when radical changes take place organisms mutate and those that fail to mutate, become extinct, which is lethal mutation. We also know that mutation can be induced and beneficial and the organisms themselves induce mutations and from an organizational perspective we are more interested in this. In complex economies as in the case of complex organisms, mutation as a result of radical shocks tends to lethal and organizations may face the fate of Lehman Brothers or Fannie and Freddie May which happened as a consequence of the radical shock of the housing bubble. While these financial institutions failed, others such as Citibank survived, most probably through a process similar to induced mutation of biological science. Evolutionary biology also tells us the ability of an organism to continually make adjustment to the environment through the process of evolution. In the organizational space, companies like GE, IBM, Tata and Mahindra (the latter two from India) have shown this adaptive characteristic whether through a process similar to induced mutation or evolution. Therefore, the argument that external radical forces are indispensible for creation of a new path lacks explanatory power to justify why, in similar external conditions, some organizations create contingent new path while others
fail to. Moreover, the argument of indispensability of external radical shock perpetuates the non-complimentary nature of the origin of the path and its transformation, which is questionable because in real life we see organizational transformation and failure to do so occurring at the same time, in the same business sector much like South West Airlines was recording growth while the other low cost airlines were shutting shop. Similar is the case of Indian aviation industry where IndiGo is making profit and increasing its market share while others are recording loss. What could be an explanation for this?

An alternative explanation, is that “though the path dependence creates stable equilibrium and is highly deterministic, it is temporary and at some point, the path will come to an end and a new set of contingent events will lead to radical and often unexpected reorientation” (Djelic and Quack, 2007). Building on this, Garud and Karnøe (2010) found that entrepreneurs and knowledge agents such as leaders generate and champion developments in technological fields and in totally new areas through experimentation and bricolage and this could lead to creation of a new path at some point of time much like it happens in an induced mutation. This view, thus, accepts the importance of origin of the path and transformation of the path as equally important and complimentary. This complimentary nature reconciles us to the Schumpeter (1942) proposition of ‘creative destruction’ and also to the discontinuous change proposition. It also explains that incremental and radical change first articulated by Bateson (1972) and later by Watzlawick et al (1974) and can take place within the overall framework of path dependence concept. The rhythms of change (Greiner 1972), which continues to be described as periods of convergence and then periods of divergence created by the dissonance in the rhythm or external jolts (Bacharach et al, 1996), also can take place in a path dependent context, in this paradigm. These indicate that determinism created by entrenchers is temporary and that entrepreneurs, leaders and champions of technology often create new path even without radical external shocks.

If determinism is indeed temporary and radical external shocks are not always necessary for an organization to create contingent new path because of internal forces created by entrepreneurship, leadership and championship of technology, Schumpeter’s ‘creative destruction’ (Schumpeter, 1942), propounded as early as 1942, perhaps the first indication that organizations destroy paths and create new ones by choice get strengthened. Destroy Your Business (DYB), a concept which GE embraced to insist that
its leaders continually give up one business for another in order to beat competition popularized by Jack Welch seems to bear this out. Though Stark and Bruszt (1998), argues on the stubborn nature of entrenchment which resists even the most radical shock, Stark (1992) had suggested that institutional changes come about because of complex reconfiguration of various elements rather than by replacing those elements. Woodman et al (1993) and Amabile (1996) suggests that organizations should create stimulating, supportive and positively challenging environment to become a learning organization which implies that the new path can be created through the internal forces. Bass and Avolio, (1994) suggests that transformational leaders create new path. The work of Campbell and Pederson (1996) suggest that even in the “revolutionary change” one can see several “evolutionary qualities” and these arguments suggest that aggregation of small changes lead to contingent new path, in addition to and perhaps rather than, a radial external force.

While the studies prior to 2000, discussed above, set the stage to examine forces other than radical external one to create a new path, several post 2000 writings reinforce this view. Several authors (Djelic and Quack, 2003; Thelen, 2003; Campbell, 2004; Djelic and Sorge, 2005 and Streeck and Thelen, 2005) supports the idea that gradual transformative change is possible and identifies several mechanisms that open the possibilities of such change and they conclude that these can be explained within the framework of path dependence. Johnson (2001) proposes the role of ‘choice and chance’ in changing the path and underscores the importance of sequencing change which further substantiates the views of Kotter (1996) who had argued that change has to go through eight well defined steps thus supporting the sequencing view of Johnson (2001). Thelen (2003) makes an interesting contribution and explains how new institutional arrangement are layered on the older ones rather than replaced and this has powerful explanatory power since the resources and systems of the old institutions are not always dismantled completely; but dismantled only to the extent required to create a new path indicating an action by choice rather than by external shock or chance. Layering also explains to some extent the mechanisms for creating new path smoothly. The idea has robust root in biology where organisms extend their life by systematic replacement of dying cells. Campbell (2004) discusses the role of ideas in institutional change and Garud and Karnøe (2010) underscores ‘mindful deviation’ both of which explains why entrepreneurs and leaders tend to create a new path. These works mellow the argument
of ‘radical external shock’ to terminate a path and propose the power of internal forces to create contingent new path and also gives some insight into the mechanism (Thelan, 2003).

If internal forces have the power to create path change, the question is what that force is? Despite several strong arguments indicating that radical external shocks are not the only means to create contingent new path, the explicit linking of transformational leadership to creating new path starts with the work of Bass and Avolio (1994), which got strengthened in the works of Kotter (1996). We use the term ‘explicit linking’ because the power of leaders to change a path has been proverbially accepted in society and in itself is not new, though its explicit linking is. Bass’s idea of transformational leadership identified four well defined components (Bass and Avolio, 1994). First is idealized influence. It is about building trust and confidence by being a role model and setting example and wins the admiration, respect and trust of the people in the organization. From the organizational structural perspective, it is about creating the acceptance of the leader as a person competent to delayer, a concept propounded by Thelen (2003) and in doing so, reduce entrenchment. The second is inspirational motivation and is about creating an appealing view as a consequence of delayering and replacing. These two are a duet combination for one cannot exist without the other and a peep into the leadership of Mahatma Gandhi, Martin Luther King, Lee Iacocca or Vineet of HCL Technologies of India would bear this out for they are not only known for creating contingent new path but also for doing so by articulating an attractive future at the end of the delayering and creating enough credibility among the followers to believe their claim. The third is intellectual stimulation which perhaps is the crux of transformational leadership. This implies the arousing and changing the awareness of the follower’s perspective of the problem (Bono & Judge, 2004; Kelly, 2003). The idea gets strong support from the work of Kotter (1996), who propounds the idea of creating a sense of urgency among his eight steps. Speaking in Thelen’s (2003) language, it is about acceptance of the need to delayer. But the strength of this component really manifests when transformational leadership encourage followers to be innovative and creative, ask them to approach old problems in new ways (Barbuto, 2005), empower them by persuading them to propose new and controversial ideas without fear of punishment or ridicule (Stone, Russell & Patterson, 2003). They also impose their own view judiciously and certainly not ‘at any cost’ (Simic, 1998). These underscore the
importance of transformational leadership for breaking a path. In doing so, what transformational leadership creates are clones of themselves in transformational leadership and a consequently a network of likeminded people in the organization. Kotter (1996) calls this phenomenon as guiding coalition in his eight steps. This cloned network apparently has more valence to de-entrench and create sufficient force to delayer. The fourth is individualized consideration which is about individual focus where people are treated on the basis on their talent and knowledge and encouraged to reach their level of achievement and competence thus preventing fallout from the network of cloned leadership. Leader Member Exchange theories (Graen, 1995) emphasize the importance of individual’s goals and rationality would also support the individual need to maximize their own returns. Individualized consideration is thus the cementing factor that keeps the network of transformational leadership going.

Merging the concept of transformational leadership of Bass and Avolio (1994), Kotter’s work on change (Kotter, 1996) which identified eight steps to create change among which a leader’s vision, ability to create a guiding coalition and creating urgency find a prominent place and the delayering concept of Thelen (2003), the author suggests that a network of cloned transformational leadership, better termed as ‘constellation of transformational leadership’ (CTL) can delayer and replace the redundant layers to create contingent new path. It may be interesting to note that while several authors (Djelic, 1998; Mahoney, 2000; Jacoby, 2000) were arguing that actor constellation create path dependency, their contemporary Kotter (1996) was arguing for the power of the guiding coalition or the CTL to create new path. The inductive logic drawn from several successful organizational path changes which Kotter (1996) has studied is thus compelling enough to conclude that CTL can be a counterforce to determinism and result in induced mutation. The converse will be that in the absence of CTL, the actor constellation would create path dependency as identified by several authors (Djelic, 1998; Mahoney, 2000; Jacoby, 2000). Returning to sociology from where path dependence is borrowed, the author finds that even there, these forces exist. Contingent new path in the slavery system was created not only because of the external radical shock of the civil war, but also because of the CTL created by Abraham Lincoln; the untouchably in India changed not only because of legislation but because of the CTL created by Gandhi who continued the delayering process even after his death. Perhaps
even communism was contained not because of the radical external shocks of nuclear weapons but because of the valence of CTLs. These give credence to the force of CTL. In sum, we have two forces i.e. the entrenching force and the CTL force acting on path dependence on an ongoing basis, extern radial shocks being intermittent aberrations even if cyclic. Thus we can conclude that path dependence is the result of not only the existence of entrenchers but also the non-existence of CTL.

This leads to the proposition that organizations whose valence of CTL is greater than the valence of entrenchers would create contingent new path and become innovative organizations without external radical shocks and conversely, if the valence of CTL is less than the valence of entrenchers, contingent new path will require external radical shocks consequence of which could be extermination. The proposition, if validated, can predict the impact of CTL on organizational change and competitive advantage. It has significant organizational implications because by orchestrating CTL, organizations can create contingent new path to become constantly innovative and competitive. This study stops short of validation so as to create sufficient debate and strengthening of the formulation of the proposition.

References


About Author

Dr. (Col) PS James
Professor
Area: Human Resource Management
Education: M.Sc (Def Studies), M.Sc (Psy), MBA, Ph.D
Email: james@tapmi.edu.in
Telephone: +91-820-2701058

Teaching:

HR for competitive Advantage, Leading Change, Business Leadership, Competency Mapping
Recruitment and Selection with advanced psychometric tests, Performance Management
Organizational Behavior, Organizational Theory

He is proficient in using Harvard and Ivey cases and the courses are AACSB compliant in design,
delivery and testing.

Trains Corporates In:

- Vision and Mission building;
- Organizational Identity;
- Competency Mapping;
- Cross Functional Teams, team Motivation and application of Motivational Language Theory;
- Managing Complexity;
- Training Effectiveness Evaluation Methods;
- Creativity and Innovation & use of Mind Mapping;
- Conflict Management, Negotiations;
- Stress Management;
- Assurance of Learning Method for AACSB

Has trained Global MBA programme of Saint Mary’s College, California, Indian Space Research
Organization, Mangalore Refinery and Petrochemical Ltd, ICICI bank, Piaggio Ltd, Axis Bank, faculty
of Manipal Institute of Management, Heads of Manipal University, etc

Professional Activities:

Consults in areas of 1) Development of Organizational Vision and Mission, 2) Leading
Change in organizations to include Organizational Design, 3) Competency Mapping, 4) Training
Effectiveness Evaluation and 5) Organizational Stress Measuring and mitigation.

He is a life member of All India Management Association (AIMA), National Institute of
Personnel Management (NIPM), founding president of Travancore Management Association
(TRAMA) and United Service Institutions of India (USI).

After early education in Holy Cross School, Salem and Loyola College Chennai, he joined
the Army and became a graduate of Defence Services Staff College, Wellington, India and later
completed his MBA program from UBS, Chandigarh & Israel Asper School of Management of
University of Manitoba, Canada. Then he took a master’s degree in Psychology from Madras
University and completed his PhD from Devi Ahiliya University, Indore in Stress and performance
of leaders thus consolidating his knowledge in OB and HR area. After serving in the Indian Army for
24 years and rising to the rank of a Colonel, he sought early retirement for pursuing his call – ‘Training young people to be globally competitive’.

His professional experience includes successfully handling leadership roles as founder dean of Saintgits Institute of Management and establishing ‘Indeco’ brand as founder president of Indeco Leisure Hotels Pvt Ltd. Other leadership roles held were Head of National Cadet Corps in Trichy, Director of Faculty of Studies of the Infantry School which is the think tank for Infantry training & concept development, Joint Director of Human Resources at Army Headquarters handling commissioning for the 36,000 strong officer’s cadres of the Army and Leading United Nations in Beira, Mozambique. He is well known for masterminding the only ‘Integrated Tsunami Relief Operations’ in Poompuhar Area in 2004.

His excellence in professional activities was awarded with The Chief of the Army Staff Commendation, The Order of the Dronacharya and UN Service Medal for excellence. He has travelled widely all over India, Canada, Europe, Egypt, several Southern African countries, Thailand etc. while following his professional career and has intimate understanding of cross cultural issues especially due to his direct handling of leaders from 23 countries while serving in the United Nations.

Research:

Guides students for PhD as an approved guide of Anna University, Coimbatore. Research Achievements includes studies in Forecasting Casualties in War and Use of Virtual Reality for Training and his organizational sponsored doctoral work was on Performance, Measurement of Stress in the Organization and its Mitigation.

Current research interest are in 1) application of ‘motivational language theory’ propounded by Sullivan, 2) exploring ‘multiple intelligence and performance’ on the hypothesis that if kinesthetic intelligence can lead to excellence in sports if identified and nurtured as done in the sports vocational schools of India, it is possible to identify and nurture talent in naturalist intelligence thus making a difference to the ailing farm sector in India and 3) investigating relationship of ‘leadership and performance’ and that of other variables that lead to performance in organizations.

Publications:


Conference Presentations:

Awards & Recognitions