

Creativity, Play and Entrepreneurship in Post-Industrial Organization

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Abstract

Post-industrial organizations and society is different in many aspects from industrial period organizations. Many writers have contributed towards literature of post-industrial organizations and society. These organizations are different in not only their goals and objectives; but, also the strategies applied to attain them are different. The environment demands many requirements from organizations of post-industrial society that were not evident in past. These demands changed the way organizations work in every respect. Creativity and innovation which suffered in industrial era, is now essential for success of organizations. Playfulness was considered to be harmful for transitions and was discouraged but now it plays vital role in the development of organizations and its employees. Entrepreneurship, which was not so evident in the industrial era, is now encouraged and every step of strategy, goals and resource management is based on it. So organizations are basically dependent upon these demands and not fulfilling these requirements, means failure. Innovation, creativity, play and entrepreneurship are now basic requirements for their success and development of organizations.

Keywords

Creativity, Play, Entrepreneurship, Post-Industrial Organizations

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1. Introduction

Post-industrial society and organizations are different from their predecessors. Previously organizations were only focused on goal achievement and profit making. Even now the main purpose of organizations is same i.e. profit making; but, many aspects which were never considered important for organizations, are now necessary for success. There was very little and even no care for human resource, customer, innovation, creativity and resources of organizations. And, the reason is evident that demand was much higher than supply, based on which organizations were fixated on production and profit making. But when concern of competition rose and customers started to choose products due to their characteristics, different requirements were placed on organizations. Now these same organizations were trying to achieve more attention of customers and other fragments of organizations, to achieve more advantage and to remain in business. Different methods were required for efficiency and effectiveness; and, old methods of production and profit making were suspended.

These conditions created problems for organizations and they started to look for other means such as innovation and entrepreneurship to cope with problems. These new concepts such as innovation, entrepreneurship and play were new and required different strategies than old practices, due to which their adoption in organizations at that specific era was difficult. Innovation, entrepreneurship and play always played an important role in success of organizations but in post-industrial organizations these concepts emerged as most prominent for success.

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With passage of time innovation and creativity were emphasized as successful factors of organization's success. Different authors and practitioners were trying to add literature on these concepts. Creativity, play and entrepreneurship are now highly developed in post-industrial organizations and success of any organization is dependent upon them (Sarri, Bakouros, & Petridou, 2010).

2. Phases of Industrialization

Industrialization is the period of social and economic change that transforms a human group from an agrarian society into an industrial one, involving the extensive re-organization of an economy for the purpose of manufacturing (Sullivan & Steven, 2003). Industrialization revolution in the West was from 1760 to 1840. During this era, new organizations were created and new methods for better production, efficiency and effectiveness were developed (Mantoux, 2013). Western Industrial Society through different phases reached the post-industrial stage. Industrialization in Western industrial development can be divided in three phases (Burns & Stalker, 1961). These phases are factory system in textile sector, application of factory system to other sectors, and post-industrial society (Mary, 2012). Collectively the first two phases of the industrial revolution are known as Industrialism while the third phase as Post-Industrialism. The two phases of industrialism were evident in Western industrial society and the third phase was evident only in the West (Burns & Stalker, 1961). Today other industrial societies are going directly to the third phase of industrial revolution (Mary, 2012). Industrial societies moving from industrialization first phase or even pre-industrial phase to post-industrial phase is due to technology and sharing of information (Naisbitt & Cracknell, 1984) and some also attribute it to application of theoretical knowledge in post-industrial society (Bell, 1976).

3. Industrialism

The Industrial Revolution began in Great Britain, and spread to Western Europe and North America within a few decades (Landes, 2003). Due to its application, every sector of life was changed and many economist historians are in agreement that the industrial revolution was most important event in history of humans (McCloskey , 2004). Tom Burns (1962), has provided that before industrial revolution, subcontracting systems were apparent in the Western industrial society. In the subcontracting phase, industrial labor was managed through subcontracts. These subcontracts were responsible for group of individuals working under them and these subcontracts were mostly master craftsmen contracted for specific jobs (Mary, 2012). Subcontracts were also responsible for hiring, firing assigning work tasks and defining the pace of the work (Boje & Dennehy, 1993). In the industrialism phase, the factory system replaced the subcontracting system of industrial society and subcontracts were replaced by the foremen (Mary, 2012). The foreman worked under the general manager, who was appointed by owner of industry. All responsibilities such as hiring and firing, assignment of work tasks and defining pace of work, that were part of the job description of the subcontractor were placed on the shoulders of owner or executive of factory system (Allen, 2009).

The factory system was introduced first in the United Kingdom and in the textile industry. Machines were located in factories and replicative tasks were assigned to these machines. Most of the work was still under the master craftsmen and subcontracting in first phase of industrialization (Burns & Stalker, 1961). Maintenance and repair workers were also employed for handling of machines. In the industrialism phase, workers were at higher status because they were holding key position relating to production (Burns & Stalker, 1961).

In second phase of industrialism, the factory system diffused to more complex production organizations. And, the more complex work was also being done by machines and therefore technical complexities of organizations increased (Nahapiet & Ghoshal, 1998). Technical complexities placed requirements of control, specialization and routine on production processes of organizations. Also, the need for social organization and bureaucracy was requisite for coping up with technical complexity of factory system due to emphasis on control, routine and specialization (Weber, 2009). The second phase application was wider than first phase and many new changes were developed in organizations such as more professional and clerical staff, efficient transportation system, technology and machine tools and hierarchical organization (Weber, 2009). These changes were applied to wider industrial society and with more intensity. Due to these changes many sociologists and practitioners developed theories, not only for more efficient and effective organizations but for managers as well.

Both phases of industrialism application were to develop more mechanistic organizations as it was well conceived that these types of organizations are good for profit making and meeting demands of society. Also in the phase of industrialism society, demands were higher by both the state and consumers. More production was considered to be more beneficial for organizations. Therefore, employees were the basic concern for motivation so that higher production could be achieved (Bell, 1973).

4. Post-Industrialism

Development in the third phase of the industrial revolution was very different than industrialism era due to which these developments were named as post-industrialism (Bell, 1973). In industrialism phase demand of the products was high due to which organizations were little inclined towards the factors that elevate demand (Mokyr, 1977). But in post-industrialism stage, demand was both low and supply of the products was high, and due to these market phenomena, organizations were enhanced towards customer sensitivity, to new techniques to stimulate consumption, more focused towards new markets and to more technical developments in industry (Burns & Stalker, 1961). These demands generated greater need of flexibility, customer orientation, more interactive and innovativeness organizations. in In post-industrial organizations, there is more complexity, change due to which there participative style of organizing is required (Burns & Stalker, 1961).

5. Information Age

Post-industrial organizations are organized towards creation of knowledge and use of information which is revolutionized by computers because computers shaped the ways through which information was acquired, assembled and used (Bell, 1973). Therefore it was recognized by many researchers as information age which (Bell, 1973) believed will lead more service industry and less manufacturing organizations. Some writers like (Naisbitt & Cracknell, 1984) believed that computers will lead to reduction of hierarchies in organizations and vertical organizations structure will be replaced by horizontal structure of organizations.

Now as organizations are faced with information age crisis, computers revolution, latest technology, lower demand, more competition with many other requirements, different strategies were required of them. Organizations are dependent on the environment and if organizations don't cope with requirements placed by environment on organizations, these organizations will be selected out (Pfeffer & Salancik, 2003).

There are many concepts that can be seen in post-industrial organization and these concepts are part of demands placed by environment on organizations. To cope up with these requirements, three important strategies are being used by organizations which are Decision Making, Innovation and Information acquisition and distribution (Huber, 1984). But most important concepts that become part of post-industrial society which provide competitive advantage to organizations are Creativity, Play and Entrepreneurship. These three are parts of post-industrial organizations and organizations depend upon them in many ways.

6. Creativity

Creativity can be defined in many ways and there is no fixed definition of it, according to Michael Mumford "Over the

course of the last decade, however, we seem to have reached a general agreement that creativity involves the production of novel, useful products" (Mumford, 2003). Creativity can also be defined as producing something which is not only original and, expressive, but also imaginative (Sternberg & Lubart, 1999).

According to R. J. Sternberg, there are eight types of creativity. These are:

- Replication: Confirming that the given field is in the correct place.
- Redefinition: The attempt to redefine where the field is and how it is viewed.
- Forward incrementation: A creative contribution that moves the field forward in the direction in which it is already moving.
- Advance forward movement: Which advances the field past the point where others are ready for it to go.
- Redirection: This moves the field in a new, different direction.
- Redirection from a point in the past: Which moves the field back to a previous point to advance in a different direction?
- Starting over/ re-initiation: Moving the field to a different starting point and
- Integration: Combining two or more diverse ways of thinking about the field into a single way of thinking (Sternberg, 2006, p. 96).

Organizations employ almost every type of creativity as solutions for coming out of problems. In many organizations, creativity is the solution for moving forward. Even under normal conditions, operations are dependent upon creativity.

7. Creativity in Post-Industrial Organizations

Creativity is required of employees in modern organizations. The creative professional workforce is now an integral part of organizations and of any country's economy (Potts & Cunningham, 2008). Many companies are so focused on creativity that they generate their wealth from creative and intellectual properties (Napier & Nilsson, 2006). From 1997 to 2003, growth in creative industry of the United Kingdom was 6% while economy's growth was only 2% (Cox & Dayan, 2005). While in 2012 creative industry growth outperformed all other sectors by showing growth of 10% and providing 1.68 million jobs in the United Kingdom (DCMS, 2014). Unfortunately such update and relevant data is not available in Pakistan. Almost 15% jobs are related to creative industry

sector in Pakistan and growth rate was approximately 5% from 2003 to 2008, almost half of other developing countries (Keith, et al., 2014). Creativity is not specific to only arts and other romanticist's studies; instead, marketing, strategy, scientific research and development, and product development that are integral to an organization's success are dependent upon creativity (Sørensen & Vidal, 2006).

Creativity and knowledge creation (which are evident in Post-Industrial organizations) are important for success of organizations (Nonaka, 1991). Tacit knowledge and knowledge creation contribute to the development of innovation (Leonard & Sensiper, 1998), which leads to the creativity in organizations. And creativity depends upon this tacit knowledge. Innovation which provides a competitive advantage to organizations depends upon creativity (Haldin-Herrgard, 2000). Innovation and organization relationship are old concepts but mostly evident in post-industrial organizations (Burns & Stalker, 1961). Innovation is linked to creativity of workforce (Dodgson, Gann, & Coopmans, 2008). Organizations in post-industrial organizations are dependent upon both creativity and innovation (Amabile, 1988). Without these implementations in organizations, it is very difficult to sustain competitive advantage in organizations and to avoid "selection out" of organization (Gloor, 2005).

8. Play

Johan Huizinga book: Homo Ludens explain play extensively. Play is at once beautiful, fun and captivating and at the same time rule-bound, order-creating and tension-ridden and play produces order in an imperfect world and confusion of life is reduced to some extent due to this order (Huizinga, 1938). Play helps creative process as it facilitates the motivational and affective dimensions of creative process while showing positive engagement to work tasks, and as diversion creates the social-relation dynamics which foster creative process in first place (Mainemelis & Ronson, 2006). Play is also considered as significant issue in Strategic development of organizations (Schrage, 2013).

In post-industrial organizations tensions arise due to uncertainty of conditions and environment (Pfeffer & Salancik, 2003) and decision-making is integral part for its solution (Huber, 1984). Play is stepping out of real life into a temporal state of activity with a disposition of its own (Huizinga, 1938). In the industrialism phase there was a strict insistence on rationality and purpose. Play allows workers to explore ideas or purposes that might be beneficial for organizations (March, 1976). Organizations of today are into play because it is play that creates the flexibility and remove rigidness of organizations towards its achievement of goals (Liedtka, Roger, ogilvie, Jacobs, & Heracleous, 2007). Instead play is an integral part of creativity, as creativity results when paly is incorporated (Mainemelis & Ronson, 2006).

According to March play has following features:

- Is the deliberate, temporary relaxation of rules in order to explore the possibilities of alternative rules
- Allows experimentation. At the same time it encourages reason;
- Is an instrument of intelligence rather than self-indulgence;
- Is a functional complement, and often a behavioral competitor, to reason, which
- Poses numerous challenges of matching alternative styles and orientations in the same organization (March, 1976).

To move from organizations rigidity, control, and better communication, play and playfulness should be integral part of organizations. And, in innovative organizations, play is most important for success (Warmelink, 2011). One game is Cold Stone Creamery: Stone City which was designed to avoid waste when serving ice-cream to customer which leaded others to think about games, as a playful activity, in existing organizational process (Reeves & Read, 2013). Another game "Foldit" was introduced in University of Washington that changed the University of Washington's existing process of predicting complex protein structures, rendering it attractive to a global community of players (Cooper, et al., 2010). Play and playfulness is very similar to jazz music, in which musicians' improvise and find different rhythms (Zack, 2000). Improvisation in organizations can also be considered as playfulness as it is done to react to threat or to gain advantage of opportunity.

9. Entrepreneurship

Entrepreneurship is the process of starting a business through strategy making (Gedeon, 2010). The entrepreneur is a person who has the responsibility to fully implement the plan of entrepreneurship. He/she develops a business model, have a proper planning for direction of business, adapt to environment and understand his/her own strengths and weakness (Driessen & Zwart, 1999). Entrepreneurs are leaders taking risk and initiative, taking advantages of opportunity by employing resources, planning and strategies (Deakins & Freel, 1999).

An entrepreneur is willing and able to convert a new idea or invention into a successful innovation (Schumpeter, 2013) but many authors, like J.H. von Thunen, Frank Knight, Peter Drucker, and William Baumol, think that entrepreneurship is about taking risk. Entrepreneurship like Schumpeter (2013, pg. #87) said is gale to creative destruction, as it leads creativity of products and other products are abandoned. But, this creative destruction causes the long economic growth for an organization. Entrepreneurship also creates the new business plans and strategies which makes it more competitive for competitors. Schumpeter (1934 pg. # 96) believed that entrepreneurship was not related to risk; instead, he considered the environment as a variable that creates opportunities for individuals. Entrepreneur, exploit the environment new information about the optimum allocation of resources and they acquire the new information before others giving them advantage and by exploiting this opportunity from environment they attain the entrepreneurial profit (Schumpeter, 1982). Others who believe in taking risk as indication of entrepreneurship believe that the entrepreneur takes risks in his career, capital and resources to gain profit, and it is risk that makes them entrepreneurs (Drucker, 2014). Leadership, management ability and team building are essential qualities of successful entrepreneurs (Drucker, 2014).

Organizations in post-industrial society are different from industrial era organization (Bell, 1973). In industrial era, organizations were duplicative and therefore easy to build but in post-industrial era, organizations have to have more competitive advantage so that it can be distinct from other organization (Porter, 2008).

Innovative entrepreneurs, who have idea (or ideas) to manage organization with essential to entrepreneurship, have made organizations successful. Environment plays the most important role in selection process (Hannan & Freeman, 1977) entrepreneurs with better strategy and motivation will be successful (Prive, 2012). Creativity, innovation, team building skills and management are some features of entrepreneurs and these features were not evident in pre-industrialism or in industrialism era (Amabile, 1988).

10. Conclusion

Post-industrial organizations have different design features and opportunities than pre-industrial organizations (Allen, 2009). Uncertainty and ambiguity are part of the industrial society and they always have been; but, in the modern era its intensity is very high due to many factors like competitors, demands of environment, scarcity of resources and capital information acquisition etc. (Huber G. P., 1984). The most important and severe problems are environmental constraints that have capacity to reject or accept the organization (Hannan & Freeman, 1977). In reaction to these requirements, organizational alternatives utilized are creativity, play and entrepreneurship (Golden & Wallerstein, 2006).

Even though demands of environment and uncertainty are

high on post-industrial organizations, these organizations are better and experienced than previous organizations (Naisbitt & Cracknell, 1984). There are many structures and alternatives that can enable organization to cope with even loadings of demands of environment. worst-case Post-industrial environments have many other problems such as information age. However these problems are also beneficial to organizations. Organizations that can implement and make better decision-making, adopt innovation, and information acquisition and distribution, and follow information age's restrictions, can achieve more and far better results than other organizations (Allen, 2009).

The transition from industrial and post-industrial societies and the following of creativity, play and entrepreneurship provides the viability for organizations. Creativity, play and entrepreneurship make post-industrial society different from pre-industrial society. In post-industrial society technologies, structures, and processes, if properly adopted, ensures the success of organizations. If organization and its management adopt such concepts, transfer and implementation of post-industrial design features will be easier. This will reduce the unnecessary failure or flight from the industry and business. Post-industrial society and organizations are dependent on creativity, play and entrepreneurship (Dodgson, Gann, & Coopmans, 2008) and therefore these concepts are part of post-industrial society and industry.

References

- [1] Sullivan, A., & Steven, M. (2003). Economics: Principles in action. New Jersey: Pearson Prentice Hall.
- [2] Allen, R. (2009). The British industrial revolution in global perspective. New York: Cambridge University Press Cambridge.
- [3] Amabile, T. (1988). A model of creativity and innovation in organizations. Research in organizational behavior, 123-167.
- [4] Bell, D. (1973). The coimng of Post-Industrial Society.
- [5] Bell, D. (1976). Welcome to the post-industrial society. Physics Today, 46.
- [6] Boje, D., & Dennehy, R. (1993). Managing in the postmodern world: America's revolution against exploitation. Kendall/Hunt Publishing Company.
- [7] Burns, T., & Stalker, G. (1961). The management of innovation. London: Tavistock.
- [8] Cooper, S., Khatib, F., Treuille, A., Barbero, J., Lee, J., Beenen, M., Popović, Z. (2010). Predicting protein structures with a multiplayer online game. Nature, 756-760.
- [9] Cox, G., & Dayan, Z. (2005). Cox review of creativity in business: building on the UK's strengths. TSO.
- [10] DCMS. (2014). Creative Industries Economic Estimates -January 2014. London: Department for Culture, Media and Sport.

- [11] Deakins, D., & Freel, M. (1999). Entrepreneurship and small firms. London: McGraw-Hill London.
- [12] Dodgson, M., Gann, D., & Coopmans, C. (2008). Playful Technologies: Creativity, Innovation and Organizations.
- [13] Driessen, M. P., & Zwart, P. S. (1999). The role of the entrepreneur in small business success: the Entrepreneurship Scan. 44th ICSB Wold Conference Proceedings Innovation and Economic Development: the Role of Entreprenuership and SMEs, Nápoles, (pp. 20-23).
- [14] Drucker, P. (2014). Innovation and entrepreneurship. Routledge.
- [15] Gedeon, S. (2010). What is entrepreneurship? Entrepreneurial practice review.
- [16] Gloor, P. A. (2005). Swarm creativity: Competitive advantage through collaborative innovation networks. Oxford University Press.
- [17] Golden, M., & Wallerstein, M. (2006). Domestic and International Causes for the Rise of Pay Inequality: Post Industrialism, Globalization and Labor Market Institutions. Institute for Research on Labor and Employment.
- [18] Haldin-Herrgard, T. (2000). Difficulties in diffusion of tacit knowledge in organizations. Journal of Intellectual capital, 357-365.
- [19] Hannan, M., & Freeman, J. (1977). The population ecology of organizations. American journal of sociology, 929-964.
- [20] Huber, G. (1984). The nature and design of post-industrial organizations. Management science, 928-951.
- [21] Huber, G. P. (1984). The nature and design of post-industrial organizations. Management science, 928-951.
- [22] Huizinga, J. (1938). Homo Ludens.
- [23] Keith, E., Sam, S., Calvin, T., Julie, B., Maryam, R., & Sumbul, K. (2014). Cultural and Creative Industries in Pakistan. London: British Council.
- [24] Knight, F. (2012). Risk, uncertainty and profit. Courier Corporation.
- [25] Landes, D. (2003). The unbound Prometheus: technological change and industrial development in Western Europe from 1750 to the present. New York: Cambridge University Press.
- [26] Leonard, D., & Sensiper, S. (1998). The role of tacit knowledge in group innovation. California management review, 113.
- [27] Liedtka, J., Roger, M., ogilvie, d., Jacobs, C. D., & Heracleous, L. (2007). Strategizing through playful design. Journal of Business Strategy, 75-80.
- [28] Mainemelis, C., & Ronson, S. (2006). Ideas are born in fields of play: Towards a theory of play and creativity in organizational settings. Research in Organizational Behavior, 27, 81-131.
- [29] Mantoux, P. (2013). The industrial revolution in the eighteenth century: An outline of the beginnings of the modern factory system in England. Routledge.
- [30] March, J. (1976). The technology of foolishness. Universitetsförlaget.

- [31] Mary, H. J. (2012). Organization theory: modern, symbolic and postmodern perspectives. New York, United Kingdom: Oxford university press.
- [32] McCloskey, D. (2004). Review of The Cambridge Economic History of Modern Britain. Times Higher Education Supplement.
- [33] Mokyr, J. (1977). Demand vs. supply in the industrial revolution. The Journal of Economic History, 981-1008.
- [34] Mumford, M. (2003). Where have we been, where are we going? Taking stock in creativity research. Creativity Research Journal, 107-120.
- [35] Nahapiet, J., & Ghoshal, S. (1998). Social capital, intellectual capital, and the organizational advantage. Academy of management review, 242-266.
- [36] Naisbitt, J., & Cracknell, J. (1984). Megatrends: Ten new directions transforming our lives. New York: Warner Books New York.
- [37] Napier, N. K., & Nilsson, M. (2006). The development of creative capabilities in and out of creative organizations: three case studies. Creativity and Innovation Management, 268-278.
- [38] Nonaka, I. (1991). The knowledge-creating company. Harvard business review, 96-104.
- [39] Perrow, C. (1967). A framework for the comparative analysis of organizations. American sociological review, 194-208.
- [40] Pfeffer, J., & Salancik, G. (2003). The external control of organizations: A resource dependence perspective. California: Stanford University Press.
- [41] Porter, M. E. (2008). Competitive advantage: Creating and sustaining superior performance. Simon and Schuster.
- [42] Potts, J., & Cunningham, S. (2008). Four models of the creative industries. International journal of cultural policy, 14(3), 233-247.
- [43] Prive, T. (2012). Top 10 qualities that make a great leader. Forbes. Retrieved.
- [44] Reeves, B., & Read, J. L. (2013). Total engagement: How games and virtual worlds are changing the way people work and businesses compete. Harvard Business Press.
- [45] Sarri, K. K., Bakouros, I. L., & Petridou, E. (2010). Entrepreneur training for creativity and innovation. Journal of European Industrial Training, 34(3), 270-288.
- [46] Schrage, M. (2013). Serious play: How the world's best companies simulate to innovate. New York City: Harvard Business Press.
- [47] Schumpeter. (1982). The Theory of Economic Development: An Inquiry into Profits, Capital, Credit, Interest, and the Business Cycle (1912/1934). Transaction Publishers.–1982.– January, 244.
- [48] Schumpeter, J. (2013). Capitalism, socialism and democracy. Routledge.
- [49] Sørensen, L., & Vidal, R. (2006). Creativity and strategy development. Informatics and Mathematical Modelling, Technical University of Denmark, DTU.

[51] Sternberg, R. (2006). The nature of creativity. Creativity Research Journal, 87-98.

Research Journal, 18(1), 95-96.

- [52] Sternberg, R. J., & Lubart, T. I. (1999). The concept of creativity: Prospects and paradigms (Vol. 1).
- [53] Sternberg, R., & Lubart, T. (1999). The concept of creativity: Prospects and paradigms. Handbook of creativity, 3-15.
- [54] Warmelink, H. (2011). Towards a playful organization ideal-type: Values of a playful organizational culture. Think Design Play; proceedings of the 5th DIGRA conference, Utrecht (The Netherlands), 14-17 Sept., 2011. Digital Games Research Association.
- [55] weber, M. (2009). The theory of social and economic organization. Simon and Schuster.
- [56] Zack, M. H. (2000). Jazz improvisation and organizing: Once more from the top. Organization Science, 227-234.