

Traditional concepts
to modern knowledge
intensive concepts
management essay



Introduction:

Innovation and Change are 2 of the most used buzz words in the modern corporate era. Some industries are entirely based on innovation. The survivability of companies operating in such industries are, to a large extent, based on their ability to innovate. The electronic consumer goods industry is a great example. The frequency in which firms like Apple and Google scrap their penultimate design and go for the new one is just alarming. On the other hand, Change is another equally important concept for companies in the modern era. Change becomes inevitable for firms operating in volatile industries as they have to respond quickly to the ripples in the market and adjust their own internal processes as a reaction. This necessitates effective 'change management' every time an organization undergoes a change initiative. As Kotter(XXXX) observed rightly;

" The rate of change is not going to slow down anytime soon. If anything, competition in most industries will probably speed up even more in the next few decades."

Through this piece of work, I would like to look at knowledge theory and how the concepts of innovation and change have evolved from traditional linear model to the modern knowledge intensive forms. The essay would be focusing mainly on information technology functions of firms and how they manage their innovation and change process. We would also explore the practical implications of widely used academic terms like 'knowledge management', 'knowledge workers', 'boundary objects', 'stickiness of knowledge' etc with the help of some examples from the technology front.

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Knowledge theory:

For the scope of this essay, we shall use the term Knowledge theory as the one which refers to the concepts of knowledge management and the appreciation of intellectual capital as an integral part of an organisation's asset. As a broad term, this also includes the various terms frequently used in knowledge work like knowledge boundaries, boundary objects etc. During the industrial revolution, labour and capital were considered as the major resources to build an organisation. Management emphasis was on effectively handling these resources and the role of managers was limited largely to financial management and human resource management. However, with the advent of the information age, we have seen managers being increasingly aware of another major resource - knowledge. This increasing importance of knowledge management is reflected in the works of several academics as well. Bell (1973) suggested that knowledge would be a central feature of post-industrial societies.

The concept of knowledge management mainly revolves around 2 popular views on knowledge, the 'knowledge as possession view' and the 'epistemology of practice'. Knowledge as a possession considers knowledge as something that an individual/organisation can possess, and pass on to others seamlessly across different situations and contexts. However, the practice view of knowledge takes into account the importance of 'tacit' knowledge and argues that knowledge is intrinsic to specific contexts and is created and negotiated through social interactions (Newell et al., 2009). Thus knowledge work could be defined as any work that deals with knowledge. However, for a specific spectrum of analysis, we shall limit our analysis only

to the so called 'knowledge intensive firms'. These are firms which have a high percentage of highly qualified staff who trade in knowledge itself (Starbuck, 1992). Consultancy firms like Ernst and Young or Deloitte are prime examples for knowledge intensive organisations. Consultants sell their knowledge to organisations or individual and organisations in need and quite evidently does knowledge work on a daily basis. Organisations like Google and Apple, where research and development is key to gaining competitive advantage over rivals are also knowledge intensive. Other examples of knowledge intensive professionals include pharmacists, educationists, doctors, accountants etc.

The majority of knowledge intensive firms are under increasing pressure from the external environment in terms of staying competitive and profitable. Thus essentially, ability to innovate and change is integral to their success as organisations. We shall now briefly look at the traditional views on innovation and change through the work of some academics and the gradual shift in concept in the information era. This would set the stage for our analysis on how and where knowledge management fits in the processes of change and innovation.

Definition of Innovation:

Several academics have clearly differentiated the concepts of creativity and innovation. Organisational creativity refers to the generation of novel and useful ideas, whereas organisational innovation describes the realization of those ideas (Cook, 1998; Jones, 1995). Thus innovation can be defined as the process by which a new element becomes available within the marketplace

or is introduced into an organization with the intention of changing or challenging the status quo (King, 1995).

The innovation process can be classified into 5 types (Andriopoulos and Dawson, 2009):

Product innovation - As the name suggests, this refers to the creation of a new product. Common examples include the ipod and the latest ipad devices from Apple, which took the market by storm. Innovative methods of computing are being released each year and this is changing the face of the IT arena.

Service innovations - This refers to the creation of new and improved services. Hotmail - world's first free web based email service is a prime example.

Process innovations - Here, the innovation is on the process rather than on the end product or service. In the United States, Netflix offers subscription based DVD rentals online. This is now the largest of its kind in the world due to several innovations in its process. The firm uses distributed warehouse system to deliver DVDs to its customers via post. The returned DVDs are scanned first if they are requested again before it goes back to the warehouse. This streamlined and fast delivery model has helped Netflix become the market leader.(Rappa, 2008)

Management innovations - The adoption of Japanese manufacturing techniques by American and European companies during the eighties and nineties is an example of Management innovation.

Market or position innovation - This refers to the creation of new markets as a result of innovation. With the advent of Second life, a whole new virtual reality market has sprung up and is fast growing. Before this, this market simply did not exist.

Traditional view on innovation:

The traditional view on innovation considers it as a linear process starting from creation of the innovation, going through several stages until the innovation is accepted or rejected by the adopting unit. Rogers (1995), in support of the linear approach, used the term 'diffusion' for the process of communicating the innovation through the channels of a social system. The innovation-decision process according to this model can be depicted as below:

Knowledge

Persuasion

Decision

Implementation

Confirmation

Fig1. 1 Innovation-Decision process (Rogers, 1995)

Knowledge - The manager or decision maker or more generally 'the adopting unit' becomes aware of the innovation.

Persuasion - The unit develops either a favourable or unfavourable attitude towards the innovation.

Decision - The unit undergoes a series of activities leading to the choice of acceptance or rejection of the innovation.

Implementation - The unit puts the innovation to use.

Confirmation - The innovation is confirmed and the innovation becomes a routine if the overall feedback from the unit is favourable. Otherwise, the innovation is rejected.

The traditional model also looks at innovation as a rational process in which managers use industry-wide accepted standards or 'best practises'. This model revolves around the idea that best practises, once created, all that is left in the innovation process is the communication of this across the organisation. Thus the traditional model of innovation essentially proposed that innovation can be carried out in a linear fashion and can be overlooked with rational thinking. However, this model's inability to explain the complex and dynamic innovations in the modern era has led to various criticisms, which would be discussed at a later stage in the essay.

Definition of Organisational Change:

Andriopoulos and Dawson (2009) define organisational change broadly as 'new ways of organizing and working'. And more specifically(p14):

" Organizational change is the process of moving from some current state that, whether planned or unplanned, comprises the unexpected and unforeseen as well as the expected"

The definition clearly identifies 3 integral parts of organizational change - (1) the as-is state, (2) the to-be state and (3) the transition path. However, the transition from as-is to to-be state, in the views of several academics, rarely takes the 'planned' or 'expected' path as evident from the above definition. Studies on organizational change process have been conducted extensively by academics. However, the dynamic nature of the topic itself has meant that we still don't have a prescriptive explanation in terms of theory and concept as far as the topic of Organization change is concerned, as evidently expressed by Pettigrew et al. (2003: p351):

" This constant process of change and renewal means that, whilst scholars and managers can take forward certain key messages, there will always be a need for more research on innovative forms of organizing"

Organizational change can be of varied degree and form from minor changes in the organizational processes to major organization wide re-structuring initiatives. Palmer et al. (2006) identifies 2 types of changes:

Incremental adaptive change - is when one firm plays catch-up in response to another firms activity in an incremental adaptive fashion. E. g Microsoft and Yahoo largely followed google applications like maps and videos.

Reactive frame breaking change - deals with a much larger scale of change. E. g Major restructuring and downsizing was required for investment banks

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like RBS as they came under increasing government and public control after the recession driven bailouts using taxpayer money. It is interesting to note that most banks haven't cut down on their IT spending as they have identified IT as a tool to improve efficiency and cut costs.

Outside these two more 'reactive' changes, there is of course the strategy driven large scale operational changes that organizations undergo.

Linear views on Organisational Change:

The traditional theories on organisational change have been modelled mainly around the concept of 'unfreeze-change-refreeze' put forward by Lewin (Collins, 1998). This 3-step model essentially looked at organisational change process as a linear one. In this model, Lewin(1958) also talks about the helping and restraining forces for and against the change.

Unfreeze

Change

Freeze

Fig1. 2 Lewin's 3-step change model (Lewin, 1958)

An extended 7-step model was proposed by Lippitt, Watson and Westley (1958) which increasingly focussed on the role of the change agent than the actual change. The 7 stages were:

Diagnosing the problem

Assessing capacity and motivation for change

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Assess motivation and capacity of the change agent

Choose progressive change objects

Clear segregation of role of the change agent

Maintain the change

Termination of the change agent (Lippitt et, al. , 1958)

Kotter(1995) later proposed his 8-step model for effective change management in his analysis on why most change projects fail.

These change theories as we can see, largely revolves around a certain degree of predictability of the overall change process. They have invited criticism from the supporters of 'chaos' or 'complexity' theories as we would examine later in the piece.

Criticisms on traditional views:

The traditional linear view on innovation process has been fairly criticised by the advocates of process views on innovation. These academics argue that innovation is very rarely rational and linear and is in most times, a network based concept(Abrahamson, 1996; Swan and Scarbrough, 2005). The concept of best practices were deemed inappropriate by some academics as innovation is a highly context specific concept(Swan et al., 1999) Some other criticisms include:

Scarbrough(2008) argues that innovation is not a linear process and that the importance of feedback into the process could not be neglected at any stage

of the process. Rogers(1995) did speak about 'two-way' communication between the original sender and receiver in a knowledge diffusion process, however, it is clear that the critics of the linear model propose a much wider network-based mesh-like communication process during innovation. Swan and Scarbrough(2005: p3) states that

" since knowledge is increasingly dispersed across organizational boundaries, it is at these interstices, through the operation of networks, that distributed networks can be brought together and integrated into new products, processes and services".

Newell et al.(2009) observes that most innovation processes are not predictable and cannot be considered as a technical fix.

Clark (2003) observed that innovation often required considerable re-engineering of the existing process and thus cannot be considered as an entity that can be used as an 'add-on' to an organisational context.

The linear freeze-change-unfreeze view of organisational change has been countered by supporters of complexity theory or chaos theory. According to the chaos theory, it has become impossible to predict the outcome of long term organisational changes as this would require knowledge of the present state at a very high accuracy (Tsoukas, 1998). Certainly, the high rate of failure of Enterprise Systems implementations (70%) reinforces the concept of unpredictable nature of change.

It can also be seen from relevant literature that organisational change need not be segregated from innovation as such. Andriopoulos and Dawson

(2009), maintains that there are no clear boundaries between the concepts of creativity, innovation and change as in practise, they interlock and overlap over time. Moreover, it can also be argued that their concept of process innovation is quite similar in some respects to the concept of organisational change. Thus we shall consider innovation and change as one broad area further in this work.

Knowledge based innovation and change:

As discussed earlier in the essay, the traditional linear view on the innovation process have been attacked and countered with the process view. The processual, network based view on innovation looks at the process as a set of iterative, overlapping and interdependent 'episodes' rather than linear 'stages' (Newell et al, 2009).

This model as we can see, clearly addresses the unpredictability of the innovation process. The episodes overlap and iterate, leaving room for the occurrences of good or bad co-incidences and also takes into account the social and organisational factors that may affect the innovation process. The importance of knowledge work during innovation is also emphasized in this model. From agenda formation to routinization of the innovation, the success of the change lies in effective creation, diffusion, implementation and use of knowledge. Due to several reasons, we can see that such an open-ended framework is more appropriate when we look at some of the recent innovations in IT.

Thus, understanding of knowledge concepts are critical to any innovation and change project in the modern era. The communication channel between

the change agent and the unit undergoing a change is no longer the straightforward 2-way communication as seen in Rogers (1995). Innovation and change processes are increasingly becoming network based, spanning across practises, institutions and geographies. The success of Research in Motion's blackberry phone can be hugely attributed to the innovative feature of email on a hand held. However, the product was actually just meant to be a start-up product, designed to enable the company to enter the wireless market. The huge popularity of this new way of working among its users resulted in immense pressure on the development team to refine and come up with the blackberry we know now. Thus it can be argued that the users were part of the innovation project as well. Further on this example, during the 9/11 strike on the world trade centre, there were several media reports that people trapped inside the building used their blackberry phones to keep in touch with their loved ones since all other forms of wired and mobile connectivity had gone down. Along with huge popularity, this event added even more social value to the otherwise technological product. This clearly qualifies for the external factor depicted in the Clark model.

Other innovations like Open Source Software Development, Extreme programming(XP) and Agile methodologies are also examples for experimental innovation models including dynamic, planning, testing and regular releases (Beck, 2000; Highsmith, 2002). The open source developers' community consists of developers from across the globe and from different functions of life. In spite of the existence of semantic, syntactic and pragmatic knowledge boundaries among them, they still manage to interact remarkable well and come up with innovative solutions. Information

technology interestingly plays the role of a boundary object in the form of the Knowledge Management (KM) portal or forum. The open source KM forum is exceptionally well maintained and strictly moderated, just as well as the knowledge intensive firms, if not better.

In a more organisational context, knowledge intensive firms like consulting and software services companies consider knowledge management as an integral part of innovation and change projects. The amount of money they spend on maintaining a centralised repository for knowledge management is testament to this fact. The consultancy firm Ernst and Young spends 6% of their revenue on knowledge management (HBS, 2001). It may seem that the abundance of knowledge workers and technology would automatically foster a favourable environment for KM in such companies; some academics believe that this is not always the case. Andriopoulos (2003) suggests that knowledge can be a 'double headed' sword. Since knowledge workers in such organisations are highly specialized in their area, this may enslave them inside a pattern of thought, thus inhibiting innovation and change (Bengtson, 1982). Such a view of 'experts' becoming not receptive to new ideas was shared by Starbuck (1992) as well. On similar lines, Carla O'Dell, president of American Productivity & Quality Center said:

" The number-one reason KM initiatives may not function is that the 'evangelists' fail to connect with the real business issues."

Relevant academic literature suggest that such organizations try to work around this problem by creating a strong culture and by involving the specialists more and more in organisational dialogues (Blackler, 1995). Such

'enabling contexts' created by the organisation would be an important factor for fostering knowledge creation for innovation and change. Google, for example, gives one day a week for its employees to work on their pet projects and ideas. The ideas can be posted by anyone on the repository via email. Rocket ride, as it is called, has also led its competitors to create similar projects like - Microsoft's Technorati and Yahoo's Exalead (Business Week, 2005).

The concepts of knowledge theory has indeed influenced the way organizations go about undertaking innovation projects as evident from the above illustrations.

Conclusion:

Through this piece, we have looked at knowledge theory as a term relevant to the scope of the topic. We have also looked the traditional view on innovation and change process via the works of several academics and some industry examples. Some of the criticisms against these views were also discussed. In the specific area of knowledge intensive firms, we analyzed how these knowledge theories affect the innovation and change process.

Having looked at the modern unpredictable and network based modes of innovation and change, it may seem that the traditional concepts are now outdated. However, majority of knowledge management work is still based on the assumption that most forms of knowledge can be codified, stored and distributed. Change consultants still follow the step by step approach for organisational innovation and change. Thus the apt conclusion here would be one of a compromise between the two. It is imperative that organisations, <https://assignbuster.com/traditional-concepts-to-modern-knowledge-intensive-concepts-management-essay/>

especially the knowledge intensive ones cannot ignore the importance of knowledge management for innovation and change. However, the approach shall be decided upon considering the institutional context in detail.