# Evaluation of the importance of innovation and creativity to the steel industry



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Company A was established in 1960's by its steel visionary Chairman in partnership with his brothers & cousins. It was very creative and innovative act at that time as Company A was one of the earliest companies in India to manufacture Steel Tubes and Pipes. Afterwards, he got busy in expanding his own business by establishing other massive steel producing units. This led to a kind of stagnancy in the approach of company's management towards the business. But, with the untimely demise of the Chairman in 2004, his son took over his position. He was highly interested in utilising their brand name. To make this happen, he was of the opinion to change upper management of the company so that the culture can be changed. In this process, a new Chief Operating Officer (COO) was appointed in 2005.

The COO is having a vast experience in steel sector both in India and abroad. He had worked for a considerable time with the competitors of Company A. He is very committed to the importance of new ways of organising and doing business to achieve organizational effectiveness, competitiveness and survival within such a rapidly changing environment and sees the challenge as getting very best from the staff and to differentiate the company based on its people. On the day of his appointment, he called up the meeting of all the Head of Departments (HODs) and introduced himself. Then, he used sit in the offices of all the HODs, understanding their style of working, getting the relevant information from them. He did an immense homework to understand the behaviour of all HODs.

Earlier, it rarely happened that the HODs had a discussion over a common platform. He started combined meeting session of all the HODs for an hour every day. He discussed the concerned issues with them and if anyone else https://assignbuster.com/evaluation-of-the-importance-of-innovation-andcreativity-to-the-steel-industry/

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had some idea for improvement, it was shared on the spot. He insisted everybody to write down the outcomes of the meeting. During this process, he identified the reasons which were blocking them to generate new ideas. He encouraged them for suggesting new ideas for improvement and gave them authority to implement those ideas in their departments. Soon, HODs became confident in presenting their ideas and every time they came up with good ones, as all were highly experienced in their respective fields. They just needed an encouragement to be more innovative, which the new COO provided them. He also encouraged the HODs to have interdepartmental meetings in the same fashion so that the opinion of people working on-line can be taken. It revolutionized the way of working in the company. Every single person started to take more interest in their job and

in addition of doing their current jobs, they were critically thinking of improving the method of working. It made everyone realize that all the departments were interlinked to each other. It improved efficiency of all the departments as they started to work as a team in complete harmony with each other. He introduced a Production Planning and Control (PPC) Department which acted as a link between the sales department and production department. The PPC took information from the sales department about the requirement of market and transferred it to the production department which in turn manufactured the products accordingly. He introduced a scheme for the production department to provide ' production bonuses', if they were able to achieve higher monthly production as compared to the previous months. This kind of targeted approach was very new for the people and it pushed them to give their best performance.

Consequently, within a span of around 4 months, production of the company https://assignbuster.com/evaluation-of-the-importance-of-innovation-andcreativity-to-the-steel-industry/

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increased from 8000 tonnes per month to 12000 tonnes per month which has presently reached to around 21000 tonnes per month with the same machinery and manpower.

Earlier the company used to make products only as per the specifications provided by Bureau of Indian standards. In a way, it was restricting company's horizon to do the business, as there was a growing demand for the pipes which comply to the International Specifications. A new department in the name of 'Projects Department' was created. It worked on the ideas which came out of the daily meetings, with the concerned Departments. The COO discussed this matter with his production and projects team and they made the required amendments in their machinery; started using the prescribed raw material; purchased new testing equipments and very soon the company started producing pipes which were suitable for Oil/Gas and fire fighting purposes and also complied with the International Specifications. The company also started producing Square and Rectangular Pipes to increase its product range. Now they were producing a number of products as per International specifications. As the company already had a trusted name, they were able to sell their products readily in the market. As a result of its increased product range, the company was able to fulfil the requirements of government projects and was able to grab the prestigious orders due to its trusted brand name.

The COO was looking out for some innovation in the Pipe Manufacturing Technology. Corrosion was a main problem in the pipes. The galvanized pipes were suitable for carrying water, but got corroded if brought into the contact of acid. After a lot of research and brainstorming over the matter, https://assignbuster.com/evaluation-of-the-importance-of-innovation-andcreativity-to-the-steel-industry/

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the team came out with an idea of Anti Corrosion Leak proof (ACL) pipes and became the first company in India to produce such pipes. These pipes are totally resistant to corrosion and are leak proof. This product was promoted on a very large scale. It changed the traditional image of the company in minds of the customers and company got recognized to be an innovative one.

The COO opened a recreational centre for employees and their families in the company premises. The COO introduced various types of schemes for the benefit of employees. The company contracted with some of the leading banks which can provide loan to the employees at minimum interest rates. It helped a number of employees to purchase their own houses and cars. Each of the employees was medically insured including his family and there was a scheme of whole body check-up twice in a year.

For increment in the salaries, three grades were made. The top performers were given an increment of 18%, the second rating performers were given an increment of 15% and the rest were given an increment of 12%. The HODs were given full authority to rate their sub-ordinates and the rating of HODs was done by the COO himself. The rating was done strictly as per the performance criterion. It inspired the employees to perform better.

By now, the company has witnessed a lot of tremendous changes. Its production has increased by 2. 5 times in a span of 6 years. Its turnover has almost doubled to around 1200 Crores INR in comparison to 600 Crores INR in 2004. Most importantly, the culture of company was altogether changed. It has become a totally professional company which is highly innovative in nature. Continuous improvement became the way of working for every employee.

## Why is creativity and innovation important to company A?

Company A was established in 1960's to manufacture steel tubes and pipes. Company was an early entrant in the manufacturing of steel tube and pipes. The mission of the company is to become leaders in quality. They were market leaders in their segment of the product. But their age-old culture of management was posing a hindrance in the way of growth and advancement. It was observed that ever increasing globalization, advancements in the technology, new entrants into the market, swiftly changing business scenario necessitated every organization to look out for latest methods to cope up with these changes.

Henry (2001) mentioned that " the recognition of the importance of creative knowledge to organizations and the central role of employees idea have led to an interest in ways of drawing out creativity in the workforce". Inspired by the importance of creativity & innovation at the workplace, Company A appointed a new Chief Operating Officer (COO) whose past record displayed a passion for creativity & innovation. The COO was well aware of the significance of latest methods to organize the organization and carry out the business so as to achieve the organizational efficacy in an ever changing business atmosphere. Also, he took it as a challenge to get the optimum performance out of his employees and distinguish the company on the basis of its workforce.

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According to a definition, Creativity is an act by individual, but it chiefly relies upon the communication with other people who are working in the same field of organization (DiMaggio & Powell, 1991) cited in (Stokes and Wilson, 2005). Though Amabile (1997) moved a step ahead by including appropriateness to the newness of idea by saying that " creativity is the production of novel, appropriate ideas in any realm of human activity from science, to the arts, to education, to business or to everyday life" (study guide 2010).

According to Walker & Sayer (19992, pg. 115) cited in (Stokes and Wilson, 2005) Innovation is "fundamentally social process built on collective knowledge and cooperative effort". But even more proficient explanation for innovation is given by Farr and West(1990) which states " the intentional introduction and application within a role, group or organization of ideas, processes, products or procedures, new to the relevant unit of adoption, designed to significantly benefit the individual, the group, organization or wider society".

Tube/ Pipe manufacturing companies require a lot of innovation in their work as now days; there is demand of pipes for specialized purposes such as transportation of oil & gas, scaffolding, fire fighting etc. Implementation of new ideas will help the company A to use latest technology which in turn will develop new business opportunities for them. It will give company A an advantage over its competitors. As it is seen by the example of Company A, innovative organizations show more effectiveness than their competitors while creating more opportunities for jobs, growing rapidly and making governed company and turned into a highly professional company and with diversified market.

The process of creativity & innovation is carried out by adopting creative problem solving (CPS) techniques in the organization. The CPS techniques must be used to tackle ill-defined problems in the organization which are characterized by " indeterminacy of the results, inadequacy of day to day problems & inadequate information" (Van Gundy, 1988). There are a number of literatures on this subject, out of which the three-stage procedure of choice, intelligence & design is the most popular. This procedure underwent an expansion after which the intelligence stage became the analysis & redefinition of problem, the design stage became idea generation, choice became selection & evaluation of idea. While investigating in detail, Wallas(1926) described four stages of creative process: Preparation, Incubation, Illumination & Verification. In preparation stage, information is gathered. In incubation stage, an unconscious thought is given to the problem. In illumination stage, probable solution is identified for the problem. In the final stage of verification, the probable solutions are tested and necessary changes are made to it.

# How is creativity and innovation stimulated, supported and sustained?

Creativity & innovation is encouraged by various techniques of problemsolving. Though, sustainability & support is associated with communication among individuals in the organization and the environment in society and organization. Osborne-Parnes identified six stages in CPS techniques: mess finding, data finding, problem finding, idea finding, solution finding and acceptance finding. While sitting in the offices of all the HODs, COO found out mess by observing their style of working. While interacting with all the HODs, COO collected the relevant data to bring out the changes. Problem finding was done by comparing the company with the contemporary business prospects. They had a potential to achieve much more which they were not harnessing. The daily meetings and brainstorming over the issues helped a lot in idea finding and sharing of data. With mutual interactions, solutions were drawn to the problems. When the results were manifested, everybody accepted the policies of COO.

According to Amabile (1998), the prime components of personal creativity are: mastery over a particular area, capability to visualize the events with a new viewpoint, and the inherent motivation which comes out of the contentment to do a particular job.

In order to maintain and encourage creativity & innovation, a strong organizational culture and a climate pitched in direction is required. It is interesting to notice that the culture of an organization is totally different from the climate. According to Martins et. al.(2003), organizational culture can be explained as " deep rooted (generally subconscious) values and convictions shared by persons in the organization". The term climate can then be explained as " the repeating patters of feelings, behaviours & attitudes that characterize the life in an organization" (Isaken, 2007). It is a responsibility of the leader to change and then sustain the climate of an

organization as they have an influence over the employees. Thersa https://assignbuster.com/evaluation-of-the-importance-of-innovation-andcreativity-to-the-steel-industry/

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Amabile's KEYS model & Scott Isaken's Situational Outlook Questionnaire (SOQ) are the most influential theories to measure climate in favour of creativity.

There lie three stages in KEYS model in association to support creativity. Organization Encouragement is the first to be illustrated. It cites the values enforced by higher management to lower management regarding generation of ideas, taking risk, backing new ideas and rewards. It is evident from the case study that there was an encouragement practice by topmost management because the COO headed the joint meetings. It was taken care of that the staffs gets involved by revising the increment policies and setting up a recreational club.

Next in the list for encouraging new ideas is supervisory encouragement which is related to immediate supervisor's ability to communicate clearly and providing goals. At Company A, COO facilitated encouraged new ideas and the same was followed by HODs in their respective Departments.

At last, work group support, involves sharing the ideas within a group which in turn encourages creative thinking because one gets an exposure to extraordinary ideas. It is best suited to the case study as the individuals were coming up some brilliant ideas while they were interacting with each other on the daily basis and discussing various issues.

Freedom promotes the creative work further as the employees have choice to accomplish their tasks. It is quite apparent by the example of company A as the staff members became more positive as the aim of company to

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availability of funds, equipments and manpower in order to finish the project. Challenging working pressure is regarded as a positive sign which enhances the creativity. Negative parts of KEYS model include workload pressure which suggests impractical time pressure. Also, organizational obstructions such as criticism, official structures, strong competitor and incapability to take risks negatively affect the creativity of an organization.

Isaben (2007) mentioned that SOQ consists of challenge or innovation which means the participation of staff in day to day operations and also in the objectives of the organization. It can direct towards the intrinsic motivation which is examined in the componential theory by Amabile and further enhances the creativity. It is represented in the example of company A where involvement of the staff was the key to its creativity and the COO always strived to enhance it. Freedom is the capability of people at workplace to describe their own strategy at work. Next on the list is Trust & openness, which refer the extent of safety which an individual feels in terms of displaying the emotions. It is guite evident from the example that the COO was open to any kind of idea without any criticism. Next is Idea-time which is the time provided to the employees to produce fresh ideas and working over them. Playfulness & humour is related to the level of relaxation at the workplace. Conflict is the single negative aspect which is mentioned. Its characteristics are struggle for power and the reality that the individuals in an organization do not like each other. The notion of Idea-Support implies the approach in which ideas are handled and the seriousness of management towards the idea. Debate analyses the difference of opinion among the individuals at work place at the time of discussing various issues

for the benefit of organization. The concluding dimension is risk-taking, which is a measure of tolerance towards the uncertainty in working atmosphere. While analyzing the company A in context of the above mentioned keys, it was found that creativity & innovation was engrafted into the culture of organization by COO to gain an advantage over the competitors.

# How important was the appointment of new COO to the process?

In present scenario, creativity & innovation are very important for the organization's development and sustaining in the market. It is an obligation of the leader to change the culture of an organization into the one which promotes and supports creativity & innovation. In words of Kahn et al. (2009), conventional styles of leadership are not helpful in dealing with the current environment.

On the basis of different studies, it has been found that there is relationship of transformational leadership with creativity and innovation. According to Gardner et al. (2008), leaders possessing transformational style of leadership are more effective in comparison to others in promoting innovations into the organization. Transformational leadership is about the " individuals with a strong combination of internal ideals & values, with effectiveness in motivating the subordinates to work in a way which focuses on greater good instead of the personal self-interests (Kuhnert, 1994) mentioned in (Northouse, 1997, pg. 134). Keller & Elkins (2003) purposed that the transformation leadership is closely associated with factors influencing creativity & innovation in an organization, for example Organization's vision, https://assignbuster.com/evaluation-of-the-importance-of-innovation-andcreativity-to-the-steel-industry/ challenging work, support of the organization, encouragement, freedom to decide their strategies and rewards. Bass & Avolio (1995) asserted that there are four dimensions of transformational leadership namely individualized consideration, intellectual simulation, inspirational motivation & idealized influence. Individualized Consideration is related to encouraging and rewarding the employees. Intellectual simulation is affected by support and liberty for innovation. By stimulating the employees of organization inspirational motivation renders support to the process of idea generation. The actions of leader are enhances the creativity among the sub-ordinates as they are influenced by the charisma of the leader.

In Case study, COO was very enthusiastic about the implementation of creativity & innovation in the organization. To make this happen, he changed the complete culture of organization by employing formal & informal techniques. He assured that every concerned person has got d required information. The COO provided higher targets to the employees and motivated them to attain their full potential. Idea generation was his utmost priority which is reflected by the daily meetings and sharing of ideas. He also inspired the HODs to conduct such kind of inter-departmental meetings. It led to a two way communication among the employees and boosted their confidence to up with new ideas.

From the case study, it can be deduced that the style of leadership preferred was to conduct facilitation and animation instead of controlling and commanding which prevailed earlier. Some authors consider authentic leadership as an extended form of transformational leadership; Duignan & Bhindi (1997) depicts not only transformational leadership but also the https://assignbuster.com/evaluation-of-the-importance-of-innovation-and-

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leadership models of stewardship, ethics & spirituality. The criteria for investigating authentic leadership out of the ethical perspective given by Yukl (2010) are alike to that which generates a cultural environment which supports creativity & innovation.

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### Section 2: An experience of Learning

Due to VISA related delay, I was able to attend the classes from the third week of study. I was fortunate to find a group of very helping students who explained me the tutorials of first two weeks. I tried to answer the questions raised during lectures on my own and tried to carry out the practices done in the class with the help of lecture slides available on BREO and online versions of the tests available. Earlier I was of the belief that I am a creative person but, while attempting the questions of first lecture on mobilizing creativity and innovation; I got to know that I was not aware about the notion of creativity and innovation. It was even more interesting to know that other students, with whom I had interaction, were of the same opinion regarding the subject. Exhibit 1, which is presented in the evidence file, depicts the meaning which I came up with and the concluding question which asked to recall a time when I had been creative in my approach; my reaction was ' never'.

There were many definitions of creativity discussed in the class but the definition which Amabile (1997) given is most vivid in its approach, according to which " creativity is the production of novel, appropriate ideas in any realm of human activity from science, to the arts, to education, to business or to everyday life". It concentrates on the significant features of creativity such as originality and being appropriate. Meaning of originality is https://assignbuster.com/evaluation-of-the-importance-of-innovation-and-creativity-to-the-steel-industry/

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the novelty in ideas of a person comprehending it, and appropriateness analyses the eminence of idea (Henry, 2006). Then, the term ' innovation' can be explained as developing and implementing creative ideas. By above discussion, it seems that there is an association between creativity and innovation.

It had been observed that in the present scenario of ever increasing competition, the incorporation of creativity & innovation in the work culture is mandatory for organizations to ensure their survival and competitive advantage. I have worked in the companies where creativity and innovation was of prime importance, but I was not able to understand how it was implemented by the top management. Earlier I related creativity to subjects of arts such as music and drama and was not interested in these even at my school time. As I got the opportunity to select the subjects of my choice after high school, I opted for the science subjects and later on I joined the Business Administration course which is another area of my interest. But, according to Henry (2006) it seems that creative individuals have got an ability to find the problems and at times it is a result of the expertise which they have attained while working in a specific area. In addition to that, Amabile (1998) described motivation as an intrinsic factor of creative people as they put their efforts on an idea without expecting any additional incentive. According to Amabile (1998), climate for creativity can be handled by putting forward " challenging work, freedom, resources, work group features, supervisory encouragement, and organizational support" (Henry, 2006, pp. 19). I have got an opportunity to work in an environment which offered all these essentials, but still I was missing an in-depth knowledge

over the subject and was totally lacking over the application part. While going through the tutorials of first week, I understood that there were cognitive blocks on my way towards creativity & innovation as I was unaware of its meaning particularly in the business sphere.

The tutorials of next week were focussed towards creative personality & measurement of cognitive ability. Five factor model, which is occasionally termed as " big five" by Henry (2001) and formulated by McCrae & Costa Jr. (1985) was the most significant and consisted of amenity, painstakingness, extroversion, readiness towards experience and emotional constancy. The traits which are mentioned above have desirable & undesirable pole, it was proposed that are supported by genetic inclination and are inherent in nature (Henry, 2001). Thus, if we have got these traits by birth we can only modify them up to an extent but with the accumulation of maturity and experience, we can acclimatize and deal with the skills which help us.

The MBTI or Myers-Briggs Type Indicator which illustrates upon personality types theory proposed by Carl Jung is established upon four out of the five elements mentioned in the five factor model, only excluding the emotional stability because such kind of relational bonding was not apparent. I took an online version of the Jung Typology Test and found myself to be an ENFJ type of personality. According to this test I am the " giver" with a management potentiality of which I am hopeful to get enhanced to even higher extent while studying the MBA course (Exhibit 3). I hope that this personality trait of mine will help me to reach at a higher level of managerial hierarchy of an organization as managers are required to possess a quality empowering the

sub-ordinates while understanding their needs and requirements. https://assignbuster.com/evaluation-of-the-importance-of-innovation-andcreativity-to-the-steel-industry/ The questionnaire formulated by Mumford & Honey based on learning styles discusses following traits: Activists (Do), Reflectors (Review), Theorists (Conclude), Pragmatists (Plan). The activity of this questionnaire was also done in the class (Exhibit 4) according to which I strongly prefer reflective type as my style of learning, reasonably prefers theorist & pragmatist type of learning and activist is my least preferred style. It means that I think prior to take any action but a bit hesitant while taking risks. As activist is the least preferred style of my learning, it is advisable for me to try latest things to enhance this style of learning.

The subsequent session began with the discussion of concept by Jones (1979) according to which " thinking is a hard work" and there exists cognitive blocks which poses a hindrance in the process of creative thinking. Hurson (2008) examined elephant tethers, monkey minds & gator brains that depict avoidance strategies of brain such as ' following the age-old patterns, getting distracted and reaction' (pg. 19). On the basis of my learning, I can now imagine of the times in past when my brain did a few of the strategies mentioned over and I never associated those with the conserving energy of the brain. Jones (1979) suggested the methods to cut down the cognitive blocks in the process of creativity by honouring the productive ideas with encouraging feedbacks and just keeping brain off the guard. Another good approach is to acquire ideas from out of way channels and then collecting them on the basis of their productive application so as to maintain the inflow of data which in turn ensures the outflow of latest ideas.

Then came the 'Tower of Hanoi' activity, which I was able to solve with an ease as I find such kind of intellectual activities very interesting. This https://assignbuster.com/evaluation-of-the-importance-of-innovation-andcreativity-to-the-steel-industry/

exercise made me realize that in order to proceed forward, an individual has to shift backwards also; it is not always possible to keep on moving forward. The activity which consisted of nine dots was comparatively difficult to solve because I restricted myself towards the number of possibilities which existed, which was then executed as an element of the method to solve problems which were well-defined. This in turn, carried the class towards problems which were ill-defined and specifically required the techniques of creative problem solving. It included the examination and redefinition of the problem, generation of idea and at last, assessment and selection of ideas by using the various stages of creative process which consists of: groundwork, incubation, elucidation and authentication (Van Gundy, 1988). Osborne-Parnes model for creative problem solving which consists of six stages was used comprehensively in the class to make everyone understand the procedure to solve ill-defined problems. The prime purpose behind the activities conducted was to spot the problem, redefine them and produce ideas. In a technique, greeting cards were made in the class (Exhibit 5). It was the revival of fun filled days from childhood. In the beginning I was a bit sceptical about its practical usage, but after the completion of process I got to realize that it is very powerful technique for idea generation and reducing the cognitive blocks. Being aware of its practical advantage, I would like to introduce this technique at my work place if I ever get a chance to do so.

For the next coming weeks, the class was divided into various groups and each group had to present and implement a problem solving technique. The first group used the boundary examination method to define the problem which was posed by the students of the class and used brain-writing 6 3 5 as a technique to solve the problem. As the participants were generating ideas, the cognitive blocks such as elephant tethers, monkey minds & gator brains were observed, but even then a number of fine i