STEEL INDUSTRY STANDPOINTS ON CHANGE MANAGEMENT

Mr. Chandan D. N.[1] and Dr. Sharda Rao[2]

[1]Research Scholar, Department of Postgraduate Studies and Research in Commerce,
Acharya Nagarjuna University, Nagarjuna Nagar, Guntur,Andhra Pradesh, India.
[2]Professor, Department of PG Studies and Research in Commerce,
Acharya Nagarjuna University, Nagarjuna Nagar,
Guntur , Andhra Pradesh, India.

ABSTRACT:
  Considering the current dynamic business environment, the importance of an organisations' ability to adapt to their environment in order to accomplish their objectives and the associated high costs in case of inefficient change projects, change management becomes an important competitive advantage, securing organisation's progress and facilitating outperforming its competitors. The importance of this competitive advantage is proved by various research results showing that highly effective organisations in change management are much stronger financially and efficient.
  Based on an empirical quantitative research, this paper reveals insights on the peculiarities of change management in steel industry in Karnataka, discussing the impact of factors, both external and internal, on the efficiency of JSW Steel and Hospet Steels in change processes.

KEY WORDS: Technology, External Internal Factors, Change Management, Human Resource, Steel Industry.

INTRODUCTION:
  Our world is changing every minute. Companies are born, technologies are invented, markets are extended, economic conditions fluctuate, job requirements evolve, and even people are changing. Continuous change is our reality that can nurture progress or failure, in accordance with our attitude towards it.
  Rogers' *Diffusion of Innovations* (1962, 2003) shows that people face change differently: some of them are innovators and early adopters, embracing change immediately, followed by early and late majority, and finally by laggards, who adopt the change only when they can't postpone it anymore. In the same way, there are some organisations so open to change that they determine not only their own change, but also their environment's, while others are resistant to change, postponing it as long as they can. Crawford (2012) showed that organisation's change and improved ability to accomplish organisational objectives are the fourth most common project, while other studies revealed that 70% of all change initiatives fail (Keller & Aiken, 2009; Kotter, 1995).

THE INDIAN STEEL INDUSTRY:

The Indian steel industry is almost 100 years old now. Till 1990, the Indian steel industry operated under a regulated environment with insulated markets and large-scale capacities reserved for the public sector. Production and prices were determined and regulated by Government of India. The steel sector was deregulated in 1991-92, when controls on capacity and prices were abolished along with quantitative trade restrictions. Import tariffs were also brought down substantially. In 2000-01, the Indian steel industry operated at finished steel production level of 26.7 million tonnes with apparent finished steel consumption at 26.9 million tonnes. However, with the onset of liberalisation, the Indian steel sector witnessed entry of several domestic private players and large private investments flowed into the sector to add fresh capacities. In 2004-05, the indigenous production of steel was 38.4 million tonnes along with apparent finished steel consumption at 33.4 million tonnes. Today, India produces steel of international standards conforming to almost all grades and varieties and has been a net exporter for the past few years which shows the growing acceptability of its products in the global market and, most importantly, its increasing global competitiveness.

TRANSFORMING ORGANISATIONAL LANDSCAPES:

Organisations import inputs from their environment, transform them through various processes, and export outputs to the environment. They take what environment gives and give what environment takes. Thus, organisations are constantly responding to their internal and external requirements as they seek interactions, stability, adaptability, and growth as objectives. Through adaptability and flexibility, they are able to respond effectively to environmental requirements and survive and grow. Hence, change is a necessary phenomenon for organisational growth and survival.

The fierce domestic and foreign competition during the past few decades has brought about a new emphasis on change in organisations. Every organisation makes minor structural adjustments in reaction to changes. Change is any alteration of the *status quo*. What distinguishes planned change from routine is its scope and magnitude. Planned change is the deliberate design and implementation of a new policy or goal, or a change in operating philosophy, climate, or style. It aims to prepare the entire organisation, or a major part of it, to adopt the significant changes in the organisational goals and direction. It basically has two major goals: (a) improve the ability of the organisation to adapt to changes in its environment, and (b) change employee behaviour.

OBJECTIVES OF THE STUDY:

The following objective is set forth for this research paper:
1. To study the factors influencing organisational change in the steel industry.

HYPOTHESES OF THE STUDY:

The following hypothesis is set for the current research endeavour:

H_0: There exists no significant relationship between external/internal factors and organisational change.

H_{0a}: There exists no significant relationship between technological (external) factors and organisational change.

H_{0b}: There exists no significant relationship between internal factors and organisational change.

DATA ANALYSIS:

The research study was undertaken to study the change management practices in the steel industry with exclusive emphasis on the steel units in Karnataka. JSW Steel and Hospet Steels were chosen as the organisations to undertake the research work by randomly serving structured questionnaires to 100 respondents each spread across diverse designations.

JSW Steel is among the largest integrated steel companies in India, having established production facilities at close proximity to the mineral resources as well as to the market for its products. Its cost of production is among the lowest in the country due to locational advantages, strong leadership, and committed workforce. The integrated steel plant at Toranagallu in Bellary district of Karnataka produces hot rolled coils of various *carbon* and *low alloy* grades of steel for wide application ranging white goods, automotive, line-pipe, railway wagons, *et cetera*. It has adopted the technology of iron making use of pellets through the novel Corex process as well as in the conventional Blast Furnace route. It is among the few plants in the world to adopt and successfully operate Vibro-compacted non-recovery coke-oven, utilising the heat of the flue gases for power generation.

Hospet Steels is world-class steel plant set up by way of strategic alliance between M/s Mukund Limited, Mumbai and M/s Kalyani Steels Limited, Pune. The plant is located at Ginigera in Koppal district of Karnataka. It consists of iron making division, steel making division, and rolling mill division. It is one of the largest manufacturers of alloy and special steels in India and renowned for its quality worldwide.

The data collected from the respondents during the course of field investigation generated abundant information which has been discussed herein afterwards within the context of the objective and the hypothesis set for the study.

JSW STEEL:
I. FACTORS INFLUENCING ORGANISATIONAL CHANGE:

Table-1: Anova of Technological Factors on Organisational Change

Source	DF	Anova SS	Mean Square	F Value	Pr > F
Item-1	2	402.05306	201.0265	2.17	0.1213
Item-2	2	4777.571678	2388.786	25.75	<.0001
Item-3	3	872.968083	290.9894	3.14	0.0301
Item-4	4	1454.367713	363.5919	3.92	0.0059
Item-5	4	710.984812	177.7462	1.92	0.1160
Item-6	4	1359.207473	339.8019	3.66	0.0087

R-Square	Coeff Var	Root MSE	Technological Factors' Mean
0.569655	2.2139E+18	9.631047	4.35E-16

[Source: Field Investigation]

Since the P values are greater than $\alpha = 0.05$: 0.1213 for Item-1 (i.e., Adoption of modern technologies for regular/routine manufacturing at a viable cost sets off change); and 0.1160 for Item-18 (i.e., Product development with cost competitiveness without sacrificing quality necessitates change), the statements are acceptable at 5 per cent level of significance and, hence, it can be concluded that there is *no statistically significant difference* between adopting modern technologies and cost competitiveness with quality and organisational factors.

Table-2: Anova of Internal Factors on Organisational Change

Source	DF	Anova SS	Mean Square	F Value	Pr > F
Item-17	3	1029.213834	343.071278	7.3	0.0002
Item-18	3	4648.646777	1549.548926	32.98	<.0001
Item-19	2	791.139771	395.569886	8.42	0.0005
Item-20	3	6302.224184	2100.741395	44.71	<.0001

R-Square	Coeff Var	Root MSE	Internal Factors' Mean
0.75964	1.58E+18	6.854789	4.3503E-16

[Source: Field Investigation]

Since the P values are lesser than $\alpha = 0.05$: between 0.0001 and 0.0005 for all the items, we fail to accept the same at 5 per cent level of significance and, hence, it can be concluded that there is *a statistically significant difference* between internal factors and organisational change management.

HOSPET STEEL:

Table-3: Anova of Technological Factors on Organisational Change

Source	DF	Anova SS	Mean Square	F Value	Pr > F
Item-1	4	729.6081252	182.4020313	31.29	<.0001
Item-2	4	364.6455894	91.1613974	15.64	<.0001
Item-3	4	257.77397	64.4434925	11.06	<.0001
Item-4	4	359.5579653	89.8894913	15.42	<.0001
Item-5	4	853.3433627	213.3358407	36.6	<.0001
Item-6	4	231.8725854	57.9681463	9.95	<.0001

R-Square	Coeff Var	Root MSE	Technological Factors' Mean
0.864824	-2.718E+17	2.414269	− 0.888252

[Source: Field Investigation]

Since the P values are lesser than $\alpha = 0.05$: 0.0001 for all the items, we fail to accept the same at 5 per cent level of significance and, hence, it can be concluded that there is *a statistically significant difference* between adopting modern technologies and cost competitiveness with quality and organisational factors.

Table-4: Anova of Internal Factors on Organisational Change

Source	DF	Anova SS	Mean Square	F Value	Pr > F
Item-17	4	108.0984993	27.0246248	1.09	0.3647
Item-18	4	130.3927066	32.5981767	1.32	0.2692
Item-19	4	205.3301679	51.332542	2.08	0.0909
Item-20	4	740.9150257	185.2287564	7.5	<.0001

R-Square	Coeff Var	Root MSE	Internal Factors' Mean
0.366343	− 5.6E+17	4.968839	− 0.887293

[Source: Field Investigation]

Since the P values are greater than α = 0.05: 0.3647 for Item-17 (i.e., New technologies/technical production processes bring in organisational change); 0.2692 for Item-18 (i.e., I rarely receive feedback from my superior(s) about my performance); and 0.0909 for Item-19 (i.e., Change is a product of new organisational goals/leadership), the statements are acceptable at 5 per cent level of significance and hence it can be concluded that there is *no statistically significant difference* between new organisational policies, feedback about performance, and organisational goals/leadership, and organisational factors.

RESULTS AND CONCLUSION:

As is evident from the discussion thus far, the factors external and internal to the organisation do not have uniform impact on the organisations under consideration. While the effect of technology was vigorously dynamic on JSW Steel the same was not the case in so far as its internal policy was concerned. All the same, the opposite is true in the case of Hospet Steels wherein technology played not so a dominant role, while its internal policy had quite an impactful function. Nevertheless, the size and scale of the organisation comes in to picture which cannot be ignored altogether.

REFERENCE:

1. Crawford, L. & Cooke-Davies, T. (2012). Best Industry Outcome. Newtown Square, PA: Project Management Institute.
2. Kotter, J. (1995). Leading change: Why transformation efforts fail, Harvard Business Review, 73(2), 59-67.
3. Rogers, E. (2003). Diffusion of innovations, 5 Edition. Simon and Schuster.
4. www.hospetsteels.in
5. www.jsw.in