

Journal of Management & Public Policy,

Vol. 14, No. 1, December 2022, Pp. 24-31

ISSN 0976-0148 (Online) 0976-013X (Print)

DOI: <https://doi.org/10.47914/jmpp.2022.v14i1.003>

Transformational Journey of United Coal Limited: A Case Study

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ABSTRACT

In India, coal mining came under the Government ownership and control in 1956. Previously it was completely owned by the private sector. United Coal Limited (UCL), a new public-sector company was formed in 1980 to provide better operational and organizational efficiency in the coal sector. Within a short span of time, UCL became the largest coal producer in the world and was awarded the prestigious 'Maharatna status' by the Government of India. UCL had 85 mining areas under operation in ten states of India. However, the company faced some major challenges, hence after. UCL also decided to downgrade 225 mines, which translated to a loss of around 1080 crores and loss of employment of 15000 workers. Another issue that UCL experienced was the rampant corruption in the coal block allocations and pilferage during the transportation of coal. To tackle this issue, E-auction process was started replacing the old manual bidding process. The present case-based article attempts to highlight and discuss some of the major challenges, the organization faced and how such challenges have been addressed by the organization through a proper change management process.

Keywords: United Coal Limited, Corruption, e-Auction, Transformation, India

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UNITED COAL LIMITED (UCL)

In India, coal mining came under the Government ownership and control in 1956. Previously it was completely owned by the private sector. United Coal Limited (UCL), a new public-sector company was formed in 1980 to provide better operational and organizational efficiency in the coal sector. Within a short span of time, UCL became the largest coal producer in the world and was awarded the prestigious '*Maharatna status*' by the Government of India. UCL had 85 mining areas under operation in ten states of India (Exhibit-4) and during the FY 2015-16, it produced 540.51 MT (million tons) coal. As of April 2016, it had 450 coal mines, out of which 180 were open cast, 250 were underground and remaining 20 used to be of mixed mines in nature. However, lack of demand of coal, growing competitiveness in terms of price from the renewable energy sector and increasing regulatory risks have posed great challenges to India's coal-fired power sector.

It has also been found in recent years that large section of traditional and new private investors, those used to plan long term money flow in coal mining or thermal power generation are also putting off in large numbers. However, this can be considered as a major shift in the situation from just three years ago, when availability of coal would have been found a major constraint for India's growing power generation capacity. In that situation, coal production experienced significant growth, though the demand growth for power has failed to keep up. According a Credit Suisse report, one of the major reasons for the slowdown in the India's investment cycle in coal mining has been the steady decrease in the demand of domestic coal. On the other hand, challenges related to governance, corruption charges, inefficiency and the lack of pricing power have had a big impact on the performance. Greenpeace report has also mentioned that nearly 120,000 people were killed per year during 2004-2012 because of the Indian thermal power plants. The high paced industrialization in India has also led to a crisis in the public health with huge number of premature deaths of around 80-120,000 and 20 million new asthma cases in a year. Pollution caused in air and water by the thermal power plants has been accused by many in this situation. Vinuta Gupta of Greenpeace stated that, the present expansion of coal based thermal power plants is very illogical and dangerous. Many forests in India, tribal communities and endangered species are being destroyed by the coal mining and now we understand the thousands are killed by the

pollution emitted while it is burned. He has also alleged that the coal has completely failed to provide energy security. Therefore as per his opinion coal mining is a needed to be prohibited on new thermal plants and on certain ambitious policy incentives to unbolt India's huge potential in wind, solar and efficiency measure.

As per the latest statement issued in 2018 by the ministry of coal, UCL will set up 1000-Megawatt solar power generation capacity in a bid to reduce its carbon footprint. For the purpose, UCL has selected some isolated islands on the Bay of Bengal and some wastelands for the solar power generation. Due to the increasing environmental concerns and solar energy availability as well as growing advocacy for environment friendly initiatives, customers are also found to be shifting from coal to solar energy. India's solar sector increasingly positioning itself as a viable alternative to thermal power. In recent times, solar power tariffs have dropped by over 25%, reaching levels lower than that of coal powered electricity.

With the surplus in the production of coal along with the decreased demand from the power generation companies, the government also asked the power plants to pay 40% premium for the fuel as per a mechanism introduced in 2013. The above-mentioned mechanism in 2013 was implemented keeping in view of the excess supply in coal supplies due to the surplus coal production. UCL also started exploring the options for starting the coal exporting business. In FY 2016-17, UCL had reserved 113.8 million tons of coal through the e-auction route. They were pushing coal in the e-auction route to improve margin even though the price of coal gradually declined. As per proposal by UCL, total of 105 million tons of coal would have been e-auctioned from July 2017 to March 2018. Since then, UCL planned to sell coal through various e-auction schemes, such as spot e-auction, special forward e-auction for power generation plants, exclusive e-auction for non- power generators and special spot e-auction. There is no doubt that the coal transportation has been the single largest revenue earner for the Railways. Over the past years, power plants have cut down on coal inventory drastically and that decreased their reliance on UCL and Railways. In such situation, the entire nation stood to gain, as lower inventory helped power plants to cut costs and to reduce the cost of supplies to distribution companies. UCL has taken the cooperation agenda forward to the Railways, to help fill the logistics gaps and improve operational efficiency.

According to some industry sources, the requirement of coal for the power sector was projected to go up to 800 MT by 2017 and that can increase up to 1070 MT by 2022. On the other hand, domestic coal supply was estimated to increase to 554 MT by 2017 and 756 MT by 2022. By 2017, the total import of coal was predicted to reach about 200 MT. It was strongly believed that the next big hurdle for UCL could be the increased coal imports. The reason being, since last few years, with the increase in demand of coal, the production levels failed to meet the demand. This situation is unlikely to change in the coming days, which will increase the dependency on the imported coal. This will adversely affect India's Current Account Deficit (CAD) in a very unfavorable manner.

Power demand is linked with the state's level of industrialization. At present, 40% of the demand comes from the industry and industrial consumption has drastically come down in last couple of years. As of 2011-12, there was 19% increase in the installation of coal-based capacity, whereas the production of domestic coal increased by just 1% which lead to the swift increase of imports. The Indian Government's aggressive electrification policy with electrification of over 12,000 villages of the 18,452 un-electrified villages since 2015 and the various reforms are found failing to bolster power demand.

CHALLENGES FOR UCL

UCL also decided to downgrade 225 mines, which translated to a loss of around 1080 crores and loss of employment of 15000 workers. Another issue that UCL experienced was the rampant corruption in the coal block allocations and pilferage during the transportation of coal. In order to tackle this issue, E-auction process was started replacing the old manual bidding process. UCL has also faced huge competition from China, USA and Australia due to the unfulfilled demand of coal in the Indian market. Functioning of many coal mines have been disrupted due to land disputes, environmental clearances, and economic viability. Inefficiency in coal production and transport systems implies that coal is failing to reach the power stations that were built at sustainable cost. In 2015, United Coal Research Centre (UCRC), UCL's research unit stated that by April 2014, the company's reserve levels were around 16%. That indicates that there is reduction in coal by 3.5 MT and nearly \$4.25 billion in the share value of the company.

Human resource problems also inhabited the central part of the problems as HR plays most crucial role for the development of any industry. As per UCL is concerned, workforce planning and management remains a critical matter. Shortage of skilled professionals working into the dark deep tunnels and tough working conditions results in employee dissatisfaction and deterioration of personal health. The challenge faced by the coal industry was of hiring professionals and retaining them for a long period of time. Retirement of the experienced workforce has been one of the major challenges in UCL. In the last three years UCL recruited about 3,000 new employees, from premier Indian institutions like IITs and IIMs. But since the senior executives reach retirement (age), UCL is also losing its experienced employees in large numbers. Quick labor turnover and absenteeism has also emerged as a major issue. Along with these, UCL also faces challenges from trade unions and labor agitations. These adversely influence the labor productivity and delay company growth. Many a times, there has been issues related to inefficient lighting and water supply in the workplaces which makes the working condition extremely stressful.

The inadequacy of latest technological equipment with UCL for the deep depths mining of coal has been the biggest reason of low-quality production. In India around 40% of the total coal reserves are situated at a deeper depth, which cannot be extracted using the open cast mining equipment available with UCL. Open cast mining is largely practiced as its cheaper, safer and more user friendly than the latest technology methods. Hence the 40% of coal reserves remain unused which is also responsible for scarcity of coal and import of coal by the electric power generation companies.

UCL does not have an efficient assessment and evaluation mechanism of distribution of coal reserves in the country. The results and details of coal reserves shown by the technology and systems available with UCL are not appropriate, due to which their mining is found to be imperfect. There are some techniques of extracting coal which cause major environmental consequences. The open-cast mining technique causes irremediable damages, leaving behind a useless land. Deforestation has become uncontrolled which is retarding the ecology in the areas. Due to the infertile land and water scarcity, the displacement of people has increased. Civil unrest has also been a major reason for inefficient mining. Most of the coal reserves in

India are situated in the Maoist guerrillas dominated areas, which makes the environment hostile for mining. Recently there is a considerable rise in the illegal mining and smuggling of coal. The litigation procedure against those guilty people goes on for years, so there hasn't been any effective control on the illegal mining in India yet.

On the logistics front UCL have a major challenge. The company is facing restrictions in shifting the infrastructure. The company is planning to improve and put together its logistic management of railway rakes to elevate the evacuation of their infrastructure by additional 6-9 per cent. They are leveraging their existing rail rakes for optimally utilizing them to move large quantities of coal and exploring new possibilities to transport the coal of other subsidiaries to southern regions through the ports of the eastern region, mainly trying to leverage multi-modal transport. The issue related to the shortage of railcars and line congestion implies that over 50 MT of coal piles up in the recent years at the pitheads of UCL.

CONCLUSION

Coal, the black diamond once upon a time was responsible to turn around many a economies. It was the major source of energy, which used to power diverse machines like locomotives, ships, and furnaces in steel plants. After India's independence, coal was a major asset and priced natural resources. Thermal power plants were dependent on coal and these plants once were the only source of electric generation. Over a period, many substitutes like solar, nuclear and hydel power plants started contributing electricity to the grids. UCL once a thriving coal mining company now encounters many roadblocks. These challenges are all part of the business environment in which the company exists. Now the company is moving ahead to uncertain times with both the internal and the external environment not in favor. So now it's time for UCL to take a call on how to revamp the company and take care of the environment. Additional to that, steps must be taken to retain the big B2B customers and make them satisfied.

Annexure

Exhibit 1: Performance of Eight Core Industries (Yearly Index & Growth Rate Base Year: 2004-05=100)

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Sector	Weight	2011-12	2012-13	2013-14	2014-15	2015-16	Apr-Feb 2015-16	Apr-Feb 2016-17
Coal	4.379	141.5	148.1	150	162.2	169.3	164.6	169.2
Crude Oil	5.216	112.1	111.4	111.2	110.2	108.7	108.8	105.7
Natural Gas	1.708	149.7	128.1	111.5	106	101.5	102	100.1
Refinery Products	5.939	133.7	172.5	175	175.6	183.2	181.5	192.3
Fertilizers	1.254	103.8	100.2	101.8	101.7	114.4	114	116.4
Steel	6.684	174	181.1	201.9	211.4	210.5	209.6	228.8
Cement	2.406	175.2	188.7	194.5	205.3	215.3	212.6	211.1
Electricity	10.316	149.3	155.3	164.6	178.5	192.4	192.1	201.7
Overall Index	37.903	145.3	154.7	161.2	168.5	174.7	173.5	181.2

Exhibit 2: Different Coal Categories

Grade	Useful Heat Value (UHV) (Kcal/Kg) UHV= 8900-138(A+M)	Corresponding Ash% + Moisture % at (60% RH & 400C)	Gross Calorific Value GCV (Kcal/ Kg) (at 5% moisture level)
A	Exceeding 6200	Not exceeding 19.5	Exceeding 6454
B	Exceeding 5600 but not exceeding 6200	19.6 to 23.8	Exceeding 6049 but not exceeding 6454
C	Exceeding 4940 but not exceeding 5600	23.9 to 28.6	Exceeding 5597 but not exceeding. 6049
D	Exceeding 4200 but not exceeding 4940	28.7 to 34.0	Exceeding 5089 but not Exceeding 5597
E	Exceeding 3360 but not exceeding 4200	34.1 to 40.0	Exceeding 4324 but not exceeding 5089
F	Exceeding 2400 but not exceeding 3360	40.1 to 47.0	Exceeding 3865 but not exceeding. 4324
G	Exceeding 1300 but not exceeding 2400	47.1 to 55.0	Exceeding 3113 but not exceeding 3865

Exhibit 3: Demand and Supply Gap

Sector\Year	2012-13 (Budget Estimates) Million Tonnes			2016-17 (Projection by Planning Commission) Million Tonnes		
	Demand	Supply	Gap	Demand	Supply	Gap
Coking Coal						
Steel Industry	52	20	32	67	35	32
Non Coking Coal						
Power (Utilities)	512	405	107	682	520	162
Power (CPP)	43	45	-2	56	74	-17
Cement	30	15	16	47	23	24
Sponge Iron	35	24	11	50	57	-7
Others	100	71	29	77	85	-8
Non Coking Sub Total	721	560	161	913	760	154
Total Raw Coal Demand	773	580	193	981	795	186

Exhibit 4: UCL's Coal Mining Zones

