

Innovation about cti
technology
commerce essay



**ASSIGN
BUSTER**

Outline of this work presenting organisational alteration with invention on `` Energy resource " company. Change direction procedure is indispensable to modern companies non merely for maintain. Modern companies need to increase their competitory abilities with invention to win in today 's quickly altering concern environment. Therefore, one of the Mongolian companies named `` Energy resource " Coal excavation company is altering their activities into energy works industry. I believe that it 's profitable and Mongolian national security, and it is conveying more independent economic system into Mongolia. I think most of organisation demand to do some alterations unless they will be left behind the competition and fail. Let 's expression at an illustration. One unfortunate illustration on `` Wool worth " company, which is really long clip ago started running over a hundred twelvemonth ago unluckily it is closed door. Because of hapless direction, they had non refreshed their disposal system.

Now I can state one successful illustration. `` Apple " has been most successful running company on the Earth. They have been bettering organisational alteration with invention. Latest their invention `` I phone " with invention of touch screen, slim, latest application Mobile phone. It has been win every bit shortly as came out on market.

Let 's endorse to pay attending on `` Energy resource " coal excavation company. Recently, They are mining coal and export to universe market 1, 000, 000 ton per twelvemonth. Now they started utilizing invention, which is coal to liquid fuel (chemical industry) . This undertaking invested by Mongolian authorities, about \$ 1bn.

There are legion factors impacting organisational alteration, including Environment, Organization construction, Politics, Leadership etc. For `` Energy resource " Company, it need to alter their organisation with new computing machine package, developing employees to cook to work on the new engineering, cultural alteration, to bear down with new force. But in this work I will concentrate on the civilization of an organisation and how that is cardinal to the organisational ability to alter, adapt and keep itself. Culture is non simply `` how things are done around there " , but civilization is the set of values, beliefs, imposts and systems that are alone to the organisation.

Burnes, B. (2004) 'Managing Change ' .

Brief DESCRIPTION OF THE INDUSTRY

The Mongolian `` Energy resource " company adopted CTL chemical works industry. Initial Coal-to-liquid engineering invented 1920s, when Franz Fischer and Hans Tropsch two German chemists, convert coal into liquid fuels. But this invention (CTL) could n't win because of oil was cheaper.

Coal-to-liquid (CTL) engineering foremost used by South African authorities, in Sasolburg in 1955. When oil monetary values soared in the 1970s, Sasol built two more workss in Secunda with a \$ 6-billion authorities loan.

SECUNDA, SOUTH AFRICA, 160, 000 BPD

www. MediaClubSouthAfrica. com (23. 02. 10)

SECUNDA, South Africa -- Every twenty-four hours, approximately 120, 000 metric dozenss of coal change overing liquid fuel in industrial composite here two hours east of Johannesburg.

<https://assignbuster.com/innovation-about-ctl-technology-commerce-essay/>

The installation - resembling a atomic power works, with concrete silos looming over nearby murphy farms - superheats the coal to more than 2, 000 grades Fahrenheit. It adds steam and O, cranks up the force per unit area, and pushes the coal through a series of chemical reaction.

Then it splits out something extraordinary: 160, 000 barrels of oil a twenty-four hours

ENERGY RESOURCE, MONGOLIA, 10, 000 BPD (TAVAN TOLGOI PROJECT 2015)

Genden, U. (23. 02. 10) `` Tavan Tolgoi " undertaking

The installation - resembling a atomic power works, superheats the coal to more than 2, 000 grades Fahrenheit. It adds steam and O, cranks up the force per unit area, and pushes the coal through a series of chemical reaction.

Mongolian authorities is puting \$ 1billion on `` TAVAN TOLGOI " undertaking. It would convey 10, 000 barrel liquid fuel every twenty-four hours in Mongolia.

WHAT IS AN INNOVATION OF `` CTL " Technology

In indirect coal liquefaction, coal is subjected to intense heat and force per unit area to make a synthesis gas comprised of H and C monoxide. The man-made gas is treated to take drosss and unwanted compounds such as quicksilver and S. This clean gas enters a 2nd phase Fischer-Tropsch procedure which converts the synthesis gas into clean liquid fuels and other chemical merchandises.

Indirect Coal Liquefaction Process

Diesel fuel produced by Fischer-Tropsch synthesis - virtually sulfur-free with low aromatics and a high cetane value - is cleaner than conventional Diesel. It burns more wholly and emanations are significantly lower than low-sulfur Diesel, as tested by the Department of Defense in 6.5 litre Diesel engines. Most of the CO₂ is already concentrated and ready for gaining control and possible segregation or for usage in enhanced oil or gas recovery. In direct coal liquefaction, coal is pulverized and assorted with oil and H₂ in a pressurized environment. This procedure converts the coal into a man-made petroleum oil that can so be refined into a assortment of fuel merchandises.

Maximizing the Value of Coal

www. engineeringnews. co. za (12. 02. 10)

Organizational CULTURE FOR `` ENERGY RESOURCE ``

`` Energy Resource " company is ready to transform their activity into Chemical industry. That is challengeable, profitable, economical and risque concern. If this undertaking would be win, it is conveying economic additions into Mongolia.

This undertaking is conveying a batch of alterations into Energy Resource. In order to it do immense alteration in their direction procedure. My suggestion is they start to alter organisational civilization. Because new undertaking requires all the bing employees ready to take new working environment, which will be changed a 100 per centum different than old direction system.

<https://assignbuster.com/innovation-about-ctl-technology-commerce-essay/>

First thing they need to make organisational civilization for alteration direction.

Organizations construction effects on Culture

`` Energy Resource '' company organized with Matrix organisation construction. Its resources are shunted around the organisation to run into the demand for attending that undertakings require. Employees work less in fixed groups for long periods and so no pockets of different civilizations can turn, but instead if Employees are unhappy with their work, the opportunities are that they can be easy moved, so as to keep good on the job civilization.

Factors coercing Change

Organizations face immense force per unit areas to alter, from both internal and external beginnings, internal forces to alter frequently as a consequence of long-run external forces. For illustration, Biggest Coal Mining companies internal force per unit area to spread outing their activities to Coal excavation and Energy works Chemical industry, as a consequence of more and more other similar companies interested to prosecute with chemical industry.

Internal Factors coercing alteration

The factors internal to an organisation that force alterations can be identified through a formal analysis method. Most common among these methods is S. W. O. T. analysis.

Strengths

An organisation 's strengths, which help place a competitory advantage or alone merchandising point, are of critical importance when make up one's minding on altering the focal point of the company.

Failings

An organisation 's failings are a existent motive to alter. Failings identified internally in a company 's merchandise or service, will necessitate immediate attending and changing. The failing would be resolved by a cultural alteration.

Opportunities

Opportunities that present themselves, like new contracts on other continents will coerce alterations in the company, sometimes every bit simple as new working hours. With the differences in different client outlooks, modern companies need to stay flexible. Flexibility is a major cultural alteration that needs to be introduced.

Menaces

Menaces to an organisation, normally in the signifier of rivals and permutation merchandises force a company to respond. To respond efficaciously companies have to respond rapidly, which is a cultural alteration in a company.

External Factors coercing alteration

The factors external to an organisation that force alterations can be identified through the PESTELI acronym.

Political

Political factors would include the current and possible influences from political force per unit areas such as brotherhoods and national wage understandings.

Economic

The local, national and universe economic system impact can coerce an organisation into altering their work patterns or even merchandise monetary values.

Social

Changes in lifestyle perfectly force alterations in organisations, but at a cultural degree, socially altering attitudes towards work or ethical issues can besides hold effects on the civilization inside an organisation.

Technical

The ever-changing proficient universe in which we live has likely the most profound consequence on organisational civilization of all external factors. Technical betterment that allow employees to work from place, working squads to be separated by great distances and for clients to be located on the opposite side of the universe from their providers. Anything that changes the daily work of the employees has a profound consequence on the organisations civilization.

Ecological

The local, national and universe ecological and environmental issues that have effects on civilization at national degrees filter down into the organisational civilization within a company.

Legislative

The legal issues both locally and at an EU degree, such as revenue enhancements and working clip ordinances besides have effects on civilization at a national degree, filter down into the organisational civilization within a company.

Industry

Industry alterations have a immense consequence on national civilization. The move off from agribusiness into industrial and now information economic systems has greatly changed the national on the job civilization.

SYNTHETIC FUEL (CTL) PROMOTE MONGOLIAN ECONOMIC SECURITY AND GROWTH

Mongolian Dependence on Oil

dependance on oil imports leaves the economic system vulnerable to provide breaks and monetary value spikes, which have triggered economic downswings in the yesteryear.

a^? The Mongolia imports 15, 000 barrels of oil per twenty-four hours. This represents about 100 per centum of the oil it consumes.

a^? The Mongolia presently depends on foreign beginnings for 100 per centum of its oil demands, including rough oil and refined merchandises.

<https://assignbuster.com/innovation-about-ctl-technology-commerce-essay/>

^? In the Mongolia oil monetary value dazes was followed by a recession:

- The Gulf War monetary value spike was followed by a mild recession in 1990-91.

Cost of Dependence

Imported oil dependance additions Mongolian trade shortage and weakens our economic system.

^? Harmonizing to the National Defense Organization, the economic punishments of Mongolian oil dependance entire \$ 312 to \$ 365 million yearly.

^? The Department of Energy estimations that each \$ 1 million of trade shortage costs Mongolia 27, 000 occupations. Accounting for about tierce of the entire debt Mongolia, oil imports are a major subscriber to unemployment.

^? The Mongolian National Energy Board estimates that if oil production extremums in 2010 and aggressive plans are non implemented to happen alternate fuels, the Mongolian economic system will lose about US \$ 4. 6 billion in Gross Domestic Product (GDP) , 400, 000 occupation old ages of employment.

Man-made Fuels: A Part of the Solution

Technology has been perfected that can transform Mongolian greatest energy resource into clean transit fuel to cut down oil dependance.

^? The Mongolia has approximately 459 million dozens of coal militias. In footings of possible useable energy. The Mongolia has approximately 9 per centum of universe coal supply - one of the biggest state of coal resource - but has less than 15 per centum of the universe 's U.

^? Harmonizing to analysts, man-made fuels produced from coal would be around \$ 18/barrel less to bring forth than rough oil-based liquids.

Man-made Fuels will Make Jobs

Alternatively of directing our money abroad, a new man-made fuels industry will excite the Mongolian economic system -creating quality occupations here in Mongolia.

^? Spending our money on domestic man-made fuels production, instead than imports, stimulates the Mongolian economic system and adds an extra \$ 5. 00 by bring forthing occupations here in Mongolia.

^? By replacing the 10, 000 barrels of oil imported daily with domestically produced man-made fuels, the Mongolian economic system would harvest a net benefit of \$ 1 million per twenty-four hours.

^? On a net present value footing, constructing a large-scale man-made fuels production installation would lend more than \$ 17 million to Mongolian GDP.

^? Synthetic fuels production would necessitate about:

1, 200 non-engineering interior decorators

640 applied scientists

<https://assignbuster.com/innovation-about-ctl-technology-commerce-essay/>

23, 000 building labourers

18, 000 operations and care employees

15, 000 coal mine employees.

It is estimated that each of these installations will take 3 to 5 old ages to develop and 3 to 4 old ages to build, making 1, 500 to 2, 000 building occupations per undertaking.

Permanent employment for each installation will be approximately 300 to 400 skilled, heavy industry workers who would have extra benefits, such as wellness attention and retirement programs.

Local and Regional Benefits

Local communities will non merely gain quality occupations but will besides derive new revenue enhancement grosss and economic stimulation.

Increased revenue enhancement base straight related to the value of the undertaking, every bit good as ad valorem revenue enhancements, rupture revenue enhancements and royalties on coal produced.

Major capital undertaking / investing in the community.

Large impermanent addition in employment during building (3-5 old ages) .

Permanent addition in employment of skilled operations and care staff, every bit good as direction and administrative staff.

a^? Increase in belongings revenue enhancement grosss will straight profit the schools in the community.

a^? Economic growing in the community related to the demand for added places, concerns and substructure.

a^? Need for research and technology will mandate support of higher instruction.

a^? Increased revenue enhancement grosss will do instruction substructure growing possible.

2

SYNTHETIC FUELS (CTL) WILL Enhance MONGOLIAN NATIONAL SECURITY

Man-made Fuels Can Help Our Security

In a geopolitically unstable universe, man-made fuels can assist better energy security.

a^? With coal militias and production dispersed widely across everyplace in Mongolia, the Biggest resource located at South Gobi desert in Mongolia, which is more than 5 % of World 's coal modesty.

a^? Synthetic fuels from coal could practicably provide at least 10, 000 barrels of top-quality fuel per twenty-four hours by 2015 - equivalent to the sum of transit fuel consumed daily by the Mongolian armed forces for domestic operations.

Oil Dependence

A failure to develop new domestic energy resources, such as man-made fuels, to cut down oil dependence will go forth our state vulnerable to future supply breaks.

^? The Mongolia presently depends on foreign beginnings for about 100 per centum of its domestic oil demands, including rough oil and refined merchandises.

Military Use

The Mongolian Department of Defense has determined that domestically produced man-made fuels are the preferable alternate fuels to cut down military dependence on imported oil.

^? Recognizing the enormous impact our dependence on foreign oil could hold on our military, the Department of Defense has already begun analyzing the advantages of man-made fuels. 2008 2008

^? The Air Force has a end of attesting the full fleet to utilize a 50/50 synthetic/oil-based fuel blend by 2011.

Oil Production

Clean Diesel fuel from Mongolian coal or other domestic feedstocks will be produced in the Mongolia and regulated by our authorities instead than controlled by international trusts such as OPEC.

^? Most of the staying universe oil militias are in politically unstable states.

Potential Menaces

Worldwide demand for crude oil merchandises is expected to increase 40 per centum by 2025 mostly due to turning demand in China and India. China's demand in peculiar is projected to increase eightfold in the following 20 old ages.

Worldwide production of oil could top out before 2025.

Decision

The TAVAN TOLGOI undertaking conveying a batch of alteration with invention (CTL) into " Energy Resource ". CTL engineering brings benefit and cost of capital. Coal to liquid engineering requires \$ 1billion of installation of Chemical industry for 10, 000 barrel liquid fuel per twenty-four hours. Current issue says we have oil resource of about 40 old ages in the universe. But we have over 150 old ages of coal resource. Thus, I believe this is best investing Mongolia has last 100 old ages. CTL profitable and Mongolian national security, it is conveying more independent economic system into Mongolia.

Harmonizing this undertaking requires change in " Energy Resource " company employees by organisational civilization. Changing civilization is tantamount to altering peoples believing, which is a non-trivial exercising. The elaboratenesss of civilization and office political relations are potentially immense and the ab initio obvious civilization may merely be the tip of the iceberg as respects the civilization at big.

The civilization of an organisation does so find its ability to alter

efficaciously, but this is a good thing. Energy Resource is big organisation which have matrix construction (e. g. Financial Institutions) , take clip to alter efficaciously.

Initial Investment of CTL engineering is really high and it 's long term undertaking. That 's why this chemical industry needs minimal 30 old ages of coal resource which means few states can utilize it in universe because of resource of coal. CTL promote domestic economic system, enhance national security, make occupation etc.