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## INTELLECTUAL VALUE ADDED: A CASE STUDY OF HINDUSTAN PETROLEUM CORPORATION LIMITED

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## ABSTRACT

Human capital is one of the main sources of innovation and improvement. Human capital tends to increase when an organization makes more and more use of what people know. An employee can add value due to age, additional wisdom, intelligence, training, experience, qualification etc. i.e. intellectual value added. The study focuses on the calculation of the intellectual value added of human resources of an organization & to determine the human resource efficiency. This paper aims to provide a framework for calculating and to analyze Intellectual Value Added of a public sector undertaking in India. The sample company selected for the study is Hindustan Petroleum Corporation Ltd (HPCL). This paper covers a period of six years from 2009-10 to 2014-15 of Hindustan Petroleum Corporation Ltd for measuring the generation of Intellectual Value Added and allocation of Intellectual Value Added. The analysis of this study clearly signifies that how human resources has added additional value due to some intellectual factors.

## KEYWORDS

human capital, intellectual value added, value added.

## INTRODUCTION

Human capital is a measure of the employees' knowledge & skills. As per Jac Fitz-enz, it is the only capital which is active. Nothing is possible without human capital in any organization. Human capital is the starting point of all ladders. It is the source of every innovation and ground of wisdom. Money can do wonders but it does not have any brain, so can't think. Machines are able to deliver more than any living being, but machines can not invent. There is a lot of evidence of the value of this asset to organizations. Human capital is the lifeblood of an organization. Though human capital is the root of innovation and advancement, but it is one of the toughest components that can be measured. When company starts investing in human capital, value increases. Human capital grows when an organization starts believing in its human resources and make judicious use of their knowledge. Therefore, to enhance productivity and add value, a company should be able to capitalize on its workforce, their ideas and knowledge. Companies' commitment towards training and education of its workforce, also lead to better productivity and value addition. Intellectual power of humans is one of the main inputs to sectors like IT sector, Teleservices sector and Banking sector etc. Skilled and intellectual man power is one of the main success factors for a knowledge based company. "Real assets will not appreciate much as businesses get commoditized; Innovation and Intellectual power are going to be the key to the future" - Mohandas Pai, CFO, INFOSYS. Intellectual Value Added (IVA) basically tells the management whether human capital is adding additional value due to age, additional wisdom, intelligence, training, experience, qualification etc.

## OBJECTIVES

1. To use IVA as a new tool for measuring the contribution of employees in value addition.
2. To understand the usefulness of IVA.

## HYPOTHESIS

The Null hypothesis has been framed for the study as, "The Intellectual Value Added shows an increasing trend throughout the study period".

## METHODOLOGY AND DATA SOURCE OF THE STUDY

The present study is carried on the basis of the analysis of data available from the financial statement of Hindustan Petroleum Corporation Ltd (HPCL) for a period of 6 years (i.e. from 2009-10 to 2014-15). The study deals with the Intellectual Value Added of HPCL. The relevant data has been collected through the published annual reports and accounts of the HPCL. To supplement the data so collected from annual reports and accounts, other publications, newspapers, journals and magazines etc. have also been consulted in the present study. The financial data collected from the above mentioned sources has been edited, classified and tabulated as per requirement of the study. For the analysis of IVA reporting, data are analyzed with the help of IVA Statement.

## COMPANY PROFILE

Hindustan Petroleum Corporation Ltd (HPCL) is a Navratna company controlled by Government of India and is one of largest oil & gas exploration Company in India. It is Fortune 500 Company and it produces high speed diesel, motor spirit & LPG (gas). The Company's business is segregated in two main segments: Down-stream business, which is involved in refining, transportation & marketing of petroleum products, & business to explore and produce Hydrocarbons.

The Company is a proud owner and operator of two refineries which produces a range of petroleum fuels and specialties. One refinery is in Mumbai (West Coast) which is having a capacity of near 6.5 million metric tons per annum. Other refinery is in Vishakhapatnam (East Coast) which is having capacity near to 8.3 million metric tons per annum. The Company also owns and operates the lube refinery producing lube base oils of international standards with a capacity of around 428 thousand metric tons (TMT). This Lube Refinery is responsible for more than 40% of the India's total Lube Based Oil production. The Company is in production of more than 300 grades of lubes, specialties & greases.

The Company was established with the name 'Standard Vacuum Refining Company of India Ltd' on 5<sup>th</sup> July, 1952. Then it was re-named as 'ESSO Standard Refining Company of India Ltd' on 31<sup>st</sup> March, 1962. Hindustan Petroleum Corporation Ltd (HPCL) was formed with amalgamation & take-over of ESSO Standard & Lube India Ltd. Caltex Oil Refining (India) Ltd (CORIL) was taken over by the Indian government by passing an Ordinance. This take-over was formally approved by an Act in 1976 and finally this company was merged with HPCL in 1977. In 1978, Kosan Gas Company, which was a concessionary of Hindustan Petroleum Corporation Ltd in domestic LPG market, was taken over and amalgamated with HPCL. Thus HPCL has been formed with amalgamation of 4 different organizations (as mentioned above).

HPCL values its workforce the most. That's why HPCL is continuously delivering best performance which is realized due to deeply motivated work strength of near 11,000 employees serving the company all over India.

Commitment of company to achieve the economic, ecological and social responsibility objectives of sustainable development continuously is commendable. HPCL has been focusing more and more in the fields of Child Care, Health Care, Education, Community Development and Skill Development. It understands its social responsibility well and is involved in different measures to improve lives of weaker section of society. To keep a high morale of employees, it extends many well-being benefits to them and also to their families. It provides comprehensive medical care, housing, education and social security to them.

## ENABLING EMPLOYEES

The best way to keep the employees focused around a common purpose is to arouse passion & emotional involvement among them. Keeping this objective in mind, Hindustan Petroleum Corporation Ltd started upon a process of Organizational Transformation. This is named as **Project ACE (A-Achieving C-Continuous Excellence)**.

**Project ACE** was aimed to develop and realize a vision which is mutually shared by all organizational members at large. Main idea is to establish HPCL as an innovative and learning organization in which employees are consistently looking to learn new skills and capabilities to deliver their best, and achieve better business results.

**Balanced Scorecard (BSC)** has been adopted as one of the other strategic initiative. The main objective of BSC is to clearly define all measurable business outcomes and cascade it to different levels of HPCL.

Such initiatives such as Project ACE and BSC, ensures that every employee is set free to think beyond boundaries & can challenge themselves as well as each other. Baseline behind this is that innovation is not a copyright of few individuals. It can come any time and from any one.

Along with all above measures, HPCL has incorporated a very strong performance management processes. This process is capable enough to map and meet up every employee's hopes and aspirations. Such kind of empowered environment helps employees to bring out their best. HPCL takes utmost care for career progression of its employees. HPCL performance appraisal process is more than just assessment as it is based on BSC Approach. This process helps employees in identifying and developing their strengths as well as weaknesses. And it helps in aligning them towards organizational objectives by means of mentoring, counseling, and additional inputs through particular training programs.

## TRAINING AND DEVELOPMENT

Skill up-gradation is one of the major components for Human Resource Development. Apart from mandatory exercise of equipping the executives with latest and specialized knowledge in fields of upstream oil and gas sector, attempts are made to reach out to best faculty from India and foreign countries to organize training programs.

HPCL is having a fully functional Corporate Training Department which is to address the learning & development requirements of its employees. Vision of Human Resource department is to bring best out of their employees to be a world class organization. Based on vision of Human Resource department, Corporate Training Department's vision is to "add on value by increasing competencies of its employees using world class and innovative learning methods and be a strategic partner to business by empowering employees to realize and perform to their full potential".

HPCL is having Training Institute at Nigdi in Pune, which is fully functional and equipped with all modern amenities. This institute demonstrates focus of HPCL on trainings.

Along with in-house trainings, company also sponsors Study Tour for its employees to enrich their knowledge and skills. It also sends employee groups for select foreign training to enrich their knowledge and skills.

Company promotes e-learning and there are many such programs developed to enrich competencies of its employees. It also sponsors certification courses on Project Management (such as PMP), and Supply Chain Management (such as CSCP). It is also having an Education Refund Plan which helps the employees to undertake academic courses for their self-development process, in line of Company's requirement.

Company provides a Study leave policy as well for employees who want to go for higher studies on their own.

To promote merit and to help employees to perform to their full potential, HPCL keeps a huge focus on innovation and allows them freedom to think something new and different. All employees are encouraged by management to bear additional responsibility and thus contribute to the success of the organization.

## AWARDS & RECOGNITIONS

Employees in HPCL are awarded and recognized from time to time. HPCL is having special focus on women empowerment. Every year, several programmes for empowerment and development of women are organized.

In HPCL, Hard-work & contribution pays off and always gets noticed. If someone's performance is exceptional and has led to substantial savings for the company, they are rewarded with "**Outstanding Achievement Award**".

Loyalty is rewarded as well in HPCL. Employees who served organization continuously for fifteen years get rewarded for their service as they have been a backbone behind successful journey of Hindustan Petroleum Corporation Ltd.

## EMPLOYEE FEEDBACK

Company pays every attention to the feedback of its workforce. It encourages employees to openly interact with the Management. Such sharing of views is facilitated through various channels such as discussions with the union representatives and direct communication with the employees.

In addition to employee satisfaction, HPCL is also recognized for its role as a 'responsible leader'. HPCL is continuously trying to make positive, measurable difference in lives of the people in society who does not have any direct-indirect link to organization.

Company profile itself illustrates significance of human resources and their knowledge in any organization making companies to invest more and more to keep employee satisfaction index high. This study focuses on intellectual value added by human resources of a company.

## CONCEPTUAL FRAMEWORK OF INTELLECTUAL VALUE ADDED

Value added in the product is the utility added in the raw material by various factors of production. A utility in the product is added by the providers of capital by providing adequate amount of capital, by government by providing infrastructure facilities and employees by doing the manual work. A manual work performed by an employee may be consisting of two factors:

1. Routine manual work requiring routine and basic knowledge.
2. Intellectual manual work requiring additional wisdom, intelligence, experience and knowledge.

Value addition by the employees is contributed by performing routine operation in a scheduled and phased manner performed by each and every employee in a normal way. This does not require additional capabilities and additional intelligence. Intellectual Value Added (IVA) is the additional value added by an employee due to age, additional wisdom, intelligence, training, experience, qualification etc. This value added may be in the form of better qualities, less use of resources (material, power etc.) or new product development in lesser time frame.

The intellectual value may be added due to some factors i.e., education, intelligence, work experience training, inherent intellectual capabilities, carefulness and wisdom, common sense, involvement in R&D, management support and encouragement, and cultural environment.

Who adds Additional Value?

- An employee who is using information technology in performing daily business activities and is having a significant impact on the efficiency as well as productivity of the job being done is the person who generates IVA.
- A person who follows a process that asks for knowledge from internal as well as external sources, to produce a product which stands out of competition by its distinguishable information content.
- One who is extremely talented and is serious about job purpose.
- One who knows what can actually be accomplished.
- A person who thinks of making living by developing and using knowledge.
- A person who is making living by creating, managing, or spreading knowledge.
- A person gathering information from some source; distributing value-added products to others & thereby adding value to the information.

- One who is converting business & personal experience into knowledge by means of capture, assess, apply, and share, and spreads widely his/her ideas within the organization in order to solve particular problems/to create value.
- A person who uses head more than the hands to add some value.

Apart from technical skills & abilities, an employee who intends to generate IVA is expected to have professional experience as well as soft skills like knowledge of cultural, personal, and political aspects in any business. The personal aspects comprise of open, candid, & effective communication skills, a warm & compatible personality, and sensitivity to the political pressures in the organization in general. These are people who want a challenge and can create a difference. They prefer to be employed by a company that creates knowledge, not one that employs knowledge.

### HOW INTELLECTUAL CAPITAL GROWS

Human capital is the only active capital and it tends to grow when an organization makes more and more uses more of what its people know. Money rules everything but it is not having brain. Machines can perform far better than human beings but they cannot invent new things. So this asset is of utmost importance to any organization.

### USING MORE OF WHAT PEOPLE KNOW

Unloosing the human capital already residing in an organization can be achieved by minimizing mindless & meaningless tasks, meaningless paperwork, and unproductive disharmony. Manufacturing companies in late 19<sup>th</sup> century broke down production into specialized tasks thereby wasting human assets in such activities by performing repetitive tasks. As per quotes, we use only 2 to 4% of our brain-power. We can move this usage to higher level. We use a very small percentage of the human potential. It is not only their brainpower but also their imaginations, their energy, and so on. Some companies get eight hours of work from people, but they do not get any benefit out of their minds.

In this Information era, we can't allow inefficient use of human capital. The only ideas that matter are 'A' ideas. There is no second thought. That means we need to get everyone in the organization involved. A company that can more fully engage this capability of employee's, is going to get a much bigger return on that investment and achieve things that it can't possibly achieve by not engaging that capability. Using simple methods, such as teaching people, supporting people psychologically, emotionally, and physically, we engage people more and more and draw out of them best of their capability. If we roll that up to the top, until we make all the connections from human motivation, skill development, and commitment up through the operating organization to the enterprise goals, we will start to get quantum leaps simply because we have used more capability. Radical changes come from the imagination of people who are able to see what is possible. The more we are engaging the full potential of something, the better return we are going to get out of it.

In the organization there should be a process where employees propose changes in work routines and bosses need to approve/reject them on the spot. It will pave the way to get more and more ideas from people.

### AREAS OF INTELLECTUAL CAPITAL

Acquiring, maintaining, developing, and, retaining are four intellectual capital areas. It's a new lexicon to understand human effort. If we think of an asset, we first think to get hold of it by buying, leasing or whatever. Once we acquire it, we need to maintain it. If it's a machine, we need to oil it, perform some preventive maintenance, etc. If its people, we got to pay salary to them, provide benefits & other necessary support. We have to retain assets, that is, we need to keep them. The same applies with people. We need to retain people and thus their talent. One unique thing is development, because people (in terms of knowledge) can be developed. Machines can't be developed. Thus acquiring, maintaining, developing, and, retaining are the four things that companies need to do to manage a human asset.

### RESULTS AND DISCUSSION

The IVA Statement of HPCL has been prepared in two parts viz., (A) and (B). Part (A) reveals the generation of IVA while part (B) discloses information regarding allocation of IVA. To arrive at the figure of Intellectual Value Added firstly the value per employee for the previous year is subtracted from the value per employee for the current year then it is multiplied with the number of employees. As a formula it may be expressed like this:

$$\text{Intellectual Value Added} = (V_1 - V_2) \times N$$

Where

$V_1$  = Value per employee for the current year

$V_2$  = Value per employee for the previous year

$N$  = No. of employees

Value per employee calculation is done using 'Lev & Schwartz' model. This 'Lev & Schwartz' model equates the anticipated future earnings as the surrogate of the 'value' of an employee. NPV (Net Present Value) for the remaining years of service is calculated at the discount rate of 8.25% in 2009-10 & 2010-11, 8.50% in 2011-12, 8.00% in 2012-13, 9.36% in 2013-14, 7.90% in 2014-15. This valuation has been calculated for regular employees, covering categories such as management and non-management.

From Table 1 it is evident that the absolute figure of Intellectual Value Added marked a fluctuating trend throughout the period of study from 2009-10 to 2014-15. The lowest figure being ₹ 43999 million (negative) in 2013-14 and the highest figure being ₹ 49569 million (positive) in 2014-15, constituting a range of ₹ 93568 million. In The index number of IVA also marked a fluctuating trend. It was 100 in 2009-10, being the base year, while it increased to 123.46 in 2010-11 but it decreased to 121.74 in the next year i.e. 2011-12. Though in 2009-10 the figure of IVA is ₹ 22064 millions but it increased to ₹ 49569 millions in 2014-15 showing an incensement of 124.66%.

TABLE 1: HINDUSTAN PETROLEUM CORPORATION LIMITED INTELLECTUAL VALUE ADDED STATEMENT [2009-10 TO 2014-15] (Rs.in million)

| Particulars                                             | 2009-10 | 2010-11 | 2011-12  | 2012-13 | 2013-14   | 2014-15  |
|---------------------------------------------------------|---------|---------|----------|---------|-----------|----------|
| <b>(A) Generation of Intellectual Value Added (IVA)</b> |         |         |          |         |           |          |
| Intellectual Value Added [IVA]                          | 22064   | 27240   | 26860    | 40455   | (43999)   | 49569    |
| Indices of IVA [2009-10 = 100]                          | 100     | 123.459 | 121.7368 | 183.353 | (199.415) | 224.6601 |
| <b>(B) Allocation of IVA Group-wise</b>                 |         |         |          |         |           |          |
| (i) Management                                          | 3910    | 21292   | 18612    | 25651   | (30308)   | 31289    |
| (ii) Non-Management                                     | 18154   | 5948    | 8248     | 14804   | (13691)   | 18280    |
| Intellectual Value Added [IVA]                          | 22064   | 27240   | 26860    | 40455   | (43999)   | 49569    |

Source: Computed and Compiled on the basis of information available in Annual Reports of HPCL from 2009-10 to 2014-15

Since, the figure of IVA has shown a fluctuating trend throughout the study period, hence null hypothesis (H<sub>0</sub>) is rejected and alternate hypothesis (H<sub>1</sub>) is accepted. This study shows that company is not utilizing its resources to their full potential. In year 2011-12, IVA decreased from the previous year. And in year 2013-14, it turned out to be negative. But if we see in overall, IVA increased from 22064 in 2009-10 to 49569 in 2014-15. So although company is cautious and improving on utilization of its human resources, but still it's not consistent in churning best out of its employee's intellectual capabilities (as evident from IVA figures of 2011-12 and 2013-14). The company should take proper steps to keep its performance standards consistently high in future.

**CONCLUSIONS**

The intellectual value added reflects the ability of employees to create value by their intellectual abilities. Intellectual value added grows when the organization make more and more use of people's knowledge. This paper begins with the concept of intellectual value added and analyzed how it is allocated between different employee's group. It collected the financial statements of Hindustan Petroleum Corporation Ltd. for six years and restated them into intellectual value added statements. This study establishes that in HPCL, IVA showed a fluctuating trend throughout the study period. Intellectual value added is a gesture to demonstrate organization's efficiency of using employee's intellectual capabilities. Further research in this area is needed to understand intellectual value added by public sector undertakings and private sector undertakings. This study work can be of immense benefit for an organization to make calculative decisions on human resources.

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