Which One is Successful in the Nano Technology Revelation, Oil Industry Managers or Leaders?

Fatemeh Rezaei¹, Naser Akhlaghi² and Nima Akhlaghi²

¹Department of Elementary Education, Omidiyeh Branch, Islamic Azad University, Omidiyeh, Iran.
²Department of Petroleum Engineering, Omidiyeh Branch, Islamic Azad University, Omidiyeh, Iran.

ABSTRACT
Management nowadays is something more than a job or a profession and it became the combination of science, art, skill. Managers in such a complex and dynamic industrial societies of these days, regarding the increasing knowledge in all fields and unreliable conditions of global competitive, cannot succeed just by using managing skills and there is no option but using leadership skills. Management is the art of making others do the job for you, but leadership is the process of influence others in the way that they conduct the work of their own accord and prefer the organization's interest to their own in all areas. A manager needs four skills: understanding, humanity, technical, and specialist. So he can do his duties such as planning, coordinating, organizing, controlling and supervising leadership and guidance, budgeting and industrial innovating. The manager's characteristics are (managing knowledge, art, experience and intrinsic management competency; however a leader must have characteristics such as great intelligence, self-control, self-confidence, charm, speech influence, high understanding, emotional stability in addition to above items) and therefore, when science and technology leaders come to an agreement and experience the deepest human relationship with their employees they achieve the most successful outcomes. The fast changes are permanent in the nowadays industrial world and leaders most perform different roles in this changing world so they can be successful in all aspects. Effort for success in the new science, specially nano technology and it's application in the petroleum industry, definitely needs to such leaders who can lead the employees through the recognition of their potentials and used each of them in its place and to help leaders to achieve results.

Introduction
Global technology revolution is associated with changes in social, economic, political, industrial and post-industrial cases. Such as the agricultural and industrial revolutions of the past, nano technology has the ability to transform the quality of life and human life expectancy, transformation of business and industry particularly in the petroleum engineering and its Issues. To plan, execute, control, guidance, development and its future prospects, industry leaders can only have the ability to achieve success.

Management nowadays becomes something more than a job or a profession and turns into a combination of science, art, and skill. Many thinkers, in the last century presented different theories for defining organization-management-leader ship and their duties, but in the beginning of this century, overlooking this issues, the theorists come up with new and interesting meanings for these words.

In fact administrators in the complex and dynamic industrial societies of nowadays, cannot regarding increasing knowledge in all fields, the unreliable conditions of global competitions and fast and unpredictable changes succeed only by using managing skills.

These days, administration cannot be run just by management knowledge. In fact everybody knows that organizational success is directly related to optimism and efficient use of human resources and the ability of guiding the human resource in the key to success. In fact guiding the employees is leading them.

For organizational success, nowadays one must take management and leadership in account. Although an efficient and competent manager can almost with regard to their skills, lead the organization to the predetermined objectives, it is not enough for success in new sciences at this growing and industrial world. This paper explanation the management and skills and their duties and afterward the leadership and it is features as well as their role, effect and the difference between them during work and life with an emphasis on success in nanotechnology revolution.

•Management and duty definition:
Definition management: the art of making others to do the job for you. This is the most useful management word that contains everything. In fact manager is someone who, by law, is in charge of all organizations and makes his best to achieve the organizations predetermined goals and work with his employees. In fact the process of planning, organizing, supervising the organization members and using all in hand sources for achieving the organization's given goals, is called management. The manager is someone who by taking necessary policies uses all human and nonhuman resources to achieve the organization's objectives faster, easier and with lower costs and in the end gain more benefits.
A manager needs the three following skills to success:

**Understanding skill:**
Understanding helps the manager to proportionate all the members and in addition to placing every employee in a right way, he can monitor all the employee and the system and understand existing relations between them and control them. In current conditions, manager understands from use of importance and necessity of petroleum engineering than achievements and abilities of nano technology is very important. As the industry's future is at stake.

Understanding also allows the manager experience and analyzes the existing circumstances (revealed or did not reveal) in the organization and among the staffs as well as the rival organizations.

This skill is especially important for the executive managers of organizations which deal with extensive goals and long-term plans.

**Human skill:**
This skill allows the manager to have the best attitude and social relationship towards every employee as well as competitors and customers. Managers of all levels need this skill.

Managers who have this skill can easily understand the Employees needs and motives and solve the problems in the best way.

This is the key to the success of the modern managers and this way the leader managers emerge and influence the organization.

**Technical skill:**
Technical skill is special and technical ability regarding type of work and production of the organization and it differs from one organization to another. But it is certain that the field of specialization of the manager must be in match with the product of the organization so he can make right decision. In current conditions, the managers of petroleum industrial should familiar with nano and its applications in their field and can be applied their potential and idea in this case.

**The managers duties:**

**Planning:**
Every manager finds and measures the needs and gathers information to priorities the needs and, than put them in short-term plans.

**Organizing:**
Putting everything in the right place, update the needed technology, and using every member and specialist in the right way and place so in the end everything and everybody works in accordance with the organizations goal is called organizing and it is essential duty of a manager.

**Coordinating:**
Making a right horizontal and vertical relation among different part of the organization so anyone in the organization can reach each other is called organizing.

**Leading and guiding:**
The manager directs the Members activities and by coordinating and motivating the employees act as a leader.

**Controlling and supervising:** a manager needs to control and supervise the members to make sure that every part of organization is doing well. Nothing does well without control; it is always recommended that start the control from the beginning because the latter the control, the larger the potential loss and the organization spends more time and energy in the wrong way as follows:

In time control and supervising and their being in parallel: A —— B

Short-term planning and conducting it in accordance with a goal:
If the point is short-term objectives, you should do the control right from the start of the planning to make sure it will succeed. Fluctuation in controlling the project and the distance between the goals.

A —— B

Short-term planning and conducting it in accordance with the goal B.

**Innovative:**
Managers in such a fast growing and competent world of today have no option but innovating and originating in all aspects to stay, compete and profit.

In addition managers should provide the base to employ the genius and taking care of them to stay and provide them with necessary conditions to reveal their talent so the organization stays updated and Meet the customer's needs.

**Budgeting:**
Planning for raising fund needed for directing and controlling the growth of the organization in different stages, predicting certain budgets for investment and future growth of the organization. . . . all are manager's duties.

Regarding management description, needed skills as well as common duties it can be concluded that everybody who is educated in this field and has academic knowledge of management almost knows about the methods and duties of the manager but is this enough?

Clearly it is not enough in the existing complex and developed world. A manager especially in the big and complex companies and organizations must be experienced and educated to succeed and even if he worked as a manager in lower ranks, it would have not Be enough. A good and successful manager must be a manager by nature, in other word he must inherit it. The above points can be summary as follow:

Short-term planning and conducting it in accordance with the goal.

**Characteristics of a manager:**

To be a successful manager in this fast growing world and does this duties well, should in addition to innate talent, knowledge and experience at least have the following features:

**Courage:** To compete and make big decisions when needed.

**Risk taking:** when facing different possibilities.

**Equity:** to prevent the employee's rights and organizational interests from being, spoiled and have good social relationship. Being interested in studying and searching. Being curious and sedulous

Having the ability of interacting.
Being good speaker and having influence.
Believing in the principle of participation in decision making and work.
Being honest, trustworthy and truthful.
Being able to control his actions and reactions in different situations.
In spite of all the above points, these abilities are not enough to be a good manager.

Today's organizations no matter how big they may be or how many work force working for them, need more humanly relation between the managers and the employees in different level and ranks in a way that both groups feel they are working together for a common goal. Therefore such a caring leader and manager is essential for the employees and the organization and only such a manager can succeed in the international stage in a world full of enthusiasm.

**Leadership and it's features:**

The process of exerting strong influence on others and motivating them to work together to reach the organization's objectives is called leading. In other word leading is the process of influencing others in the way they work enthusiastically and diligently to achieve the organizational goals.

Therefore, we can say that leading is impacting the individual and motivating them in the way that they work willingly and by their own accord, see the organization's goals as their own goals and sometimes even choose the interest of the organization on their own interests.

**Regarding management and leadership definition and their features**, the major differences between them can be described as follow:

<table>
<thead>
<tr>
<th>MANAGER</th>
<th>LEADER</th>
</tr>
</thead>
<tbody>
<tr>
<td>Depends on official rights and law to influence the other.</td>
<td>Depends on his authority and social and group processes.</td>
</tr>
<tr>
<td>Depends on formal and certain official activities to achieve the goals.</td>
<td>Depends on changing and evaluation to achieve the goals.</td>
</tr>
<tr>
<td>A manager is appointed and his term of office expires in a certain time.</td>
<td>Leaders are chosen and has no term of office and his term of office is not expires.</td>
</tr>
<tr>
<td>An organization is run and controlled.</td>
<td>An organization and group is maintained, expanded and improved.</td>
</tr>
<tr>
<td>System, organization, structure and the organization's goals are emphasized.</td>
<td>The members are the first priority.</td>
</tr>
<tr>
<td>Controlling, supervising and investigation are in the first place in the relation with work force.</td>
<td>Trust is in the first place in the relation with work force.</td>
</tr>
<tr>
<td>There is little motive and energy to succeed and innovate.</td>
<td>There is strong motive to succeed and innovate and it is the base of planning.</td>
</tr>
<tr>
<td>Considering human values and the relation among human resources are common.</td>
<td>Human values and relation among human resources are considered as the first priority.</td>
</tr>
<tr>
<td>The realm of thinking and planning is limited within the organization.</td>
<td>The realm of thinking and planning goes beyond the organization and sometimes is international.</td>
</tr>
<tr>
<td>The manager in forces the law and follow it.</td>
<td>The leader is the source of change and produces ideas is energetic.</td>
</tr>
<tr>
<td>The manager accepts the current conditions and improve it slowly.</td>
<td>The leader fights the current conditions and wants to create the perfect one.</td>
</tr>
<tr>
<td>The manager does things in a right way.</td>
<td>The leader does the right things.</td>
</tr>
<tr>
<td>The employees are obliged to obey the manager.</td>
<td>Employees obey the leader willingly and by their own accord.</td>
</tr>
<tr>
<td>The manager must be in the organization.</td>
<td>The leader can be out of the organization.</td>
</tr>
</tbody>
</table>

**Characteristics of a leader:**

Some people believe that leaders were born as leaders.

They think leaders are super mans with abilities which are divine blessing, were born having leadership power and capability. For example children who lead and boss for other children's in their age, in the future will be leaders too.

The major qualities of a leader are as follow:

- Has high intelligent.
- Extrovert.
- Self-controlled.
- Highly self-confident.
- Well spoken.
- Good-looking.
- Has word impact.
- Open minded.
- Has high understanding and the ability of analyzing.
- Is emotionally constancy.
- Acts and reacts fast when needed.
- Has the special ability to use individuals and the tools in a right way to reach the objectives.
- Can make a special communication with the people in the organization and out.
- Tends to dominate others by satisfying and influencing them.
- Is passionate and much joy.
- is innovative when needed.

**Conclusion:**

An organization should consider leadership and management to reach it is supreme goals because having merely manager's characteristic, in this industrial world is not enough to succeed as a manager. The manager should understand the differences between management and leadership and apprehend how to combine this two to succeed.

A leader can become a manager and manager can be a leader but this does not happen always. You can take a close look to the table of the differences between manager and leader and see why managers and leaders are more successful.

If a manager can become a leader of an organization and the employees accept it and believe that their power and energy will be several times more than them, it will be called Energy increasing. This way, employees will consider the interests of the organization as same as their own one's and when the organizations interests are in danger, they chose them on their own interests, because they deeply believe in the organization and the objectives and the leader. Creating sense of duty and sacrifice is the important stage and it is the leader who does that. The leader considers every single employee's satisfaction, listens to them and pays attention to their problems, provide them with whatever is essential for their peace of mind and welfare (as much as possible), the influence leader have on the employees is based on the deportment, manners, and words which unconsciously attract them and make them to be reliant on him and create a leader followed relationship changes are permanent in this industrial world.

Therefore today's leader must play different roles in this changing world. Become a social manager, leader and artist who can, by understanding every single individual, lead the organization in the best way.

Therefore the future is the era of leaders and managers rule because according to what is mentioned above, they can provide better help for the organizational success.

In this direction the petroleum Industry needs to this manager who is leader. Someone with expertise, ability, skill, and love to be able to attract and enable all employees to expose their talents. It has more power and energy between them and
with the help and use of nano developments in all fields of petroleum industry, multiplied the productivity and profitability of petroleum, petroleum products more diverse and newer, minimize the costs of exploration and drilling to manufacturing and selling products, ways of oil production is more, more the useful life of the petroleum reservoirs, and multiplied the health, safety and welfare of petroleum industry employees. Hope to see that the world is such a success.

Reference: