

## MANAGING THE CUSTOMERS' BEHAVIORS ON ENERGY SAVING USING THE CORPORATE GOVERNANCE PATTERN

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### ABSTRACT

*Although executing Targeted Subsidy Plan in Iran had been led to the reasonable consumption of electric energy; focusing on Corporate Governance will be more effective for continuation of energy saving by the various customers. During recent years, the local Iranian electric distribution companies have taken considerable measures for Demand Side Management through the mass media; but the continuation of optimal usage of electric energy is essential due to the future expansion of customers' demands in the various sectors of household, public, agriculture, industrial, and others. This study aims to focus on Corporate Governance pattern as a crucial topic which will help the managers of the electric utilities keep the trend of optimal usage of electric energy as continuously as possible.*

### INTRODUCTION

The Iranian electric industry has considered the adequate approach of utilizing the existing power plants as well as constructing the required power supply in strategic locations; meanwhile, the concepts of Supply Side Management (SSM) and Demand Side Management (DSM) have been taken into account both during the utilization of power plants and the usage of electric energy by the customers. The guidelines and instructions issued by the holding company of Tavanir (Iran Power Generation and Transmission Company) for both the Electric Power Regional Companies and Electric Distribution Companies indicate the importance of emphasizing on SSM and DSM by the Iranian electric industry. In addition, Tavanir ordered its subsidiaries to rely on SSM & DSM and also present weekly and monthly reports relating to their measures on controlling the energy consumptions all over the country. On the other hand, the essence of focusing on optimal energy consumption especially in the distribution sector has been significantly considered by the electric distribution companies and they also have taken necessary measures for decreasing their consumptions and clipping their peak load based upon the annual quota for saving energy specified by Tavanir. The results of technical and cultural measures on DSM have directed the electric distribution companies toward accomplishing their mission which is the distribution of efficient, uninterruptible and continuous electricity to their customers; meanwhile, the aforesaid companies have postponed the early demand for constructing new power plants. In addition, passing the Targeted Subsidy Plan (Subsidy Reform Plan) by the Iranian parliament and executing the plan by the government has determined the customers to optimize their consumptions as greatly as possible.

The topics of SSM and DSM as well as the appropriate measures on optimizing electric energy have already been discussed in many studies, but analyzing the optimal use of energy considering a pattern of Corporate Governance is somehow a new scientific research. Therefore, the concept of Corporate Governance and its application in the companies has been addressed in this study, and its usage in the electric distribution companies has also been discussed; meanwhile, the accountability of the electric utilities to their customers, shareholders, and stakeholders has been analyzed via the Corporate Governance viewpoint. Also, the experiences of the Southern Khorasan Electric Distribution Company (SKEDC) regarding DSM affairs as well as its pioneering techniques in the country for having the minimum electric energy consumption especially in the field of household customers have also been stated in this study.

### CORPORATE GOVERNANCE

In recent years, Corporate Governance has become an important topic for academics, institutional investors, and policymakers so that researchers, investors, and policymakers around the world have been focusing increasingly on Corporate Governance [1]. A decade ago, the term 'Corporate Governance' was barely heard, but today, like climate change and private equity, Corporate Governance is a staple of everyday business language and capital markets are better for it [2].

According to [3], in the early stage of industrialization process in western countries, little supervision was made on activities of service and manufacturing companies and they only focus on gaining profit and meeting their shareholders' requirements, and gradually; their activities created some concerns among the people and the media, because emphasizing on maximizing the profit caused some damages for the public and society. Based upon [4], a broad compendium of global initiatives and standards and guidelines have been developed to promote good Corporate Governance, ethical behavior, and social responsibility during the last decade. In addition, according to [5], the concept of Corporate Governance presents some essentials and recommendations for top managers in order to direct the companies for attaining their missions and taking their responsibilities. On the other hand, based on [6], there is a positive relationship between the adoption of good Corporate Governance and business efficiency, meanwhile, Corporate Governance will bring a healthy business mood and will avoid abuse of power, strategic errors, mismanagement and corporate fraud.

The Corporate Governance structure specifies the

distribution of rights and responsibilities among different participants in the corporation, such as, the board, managers, shareholders and other stakeholders, and spells out the rules and procedures for making decisions on corporate affairs [7].

### **Definition of Corporate Governance**

According to [7], [8], and [9]; Corporate Governance is the system by which companies are directed and controlled. In addition, based on [8], "Corporate Governance involves a set of relationships between a company's management, its board, its shareholders and other stakeholders, meanwhile; it provides the structure through which the objectives of the company are set, and the means of attaining those objectives and monitoring performance are determined". Moreover, Corporate Governance is concerned with managing the relationship among various corporate stakeholders [10]. Furthermore, based upon [11], "Corporate Governance is the process of supervision and control intended to ensure that the company's management acts in accordance with the interests of shareholders". Other definitions on Corporate Governance are as follows:

Corporate Governance is the process and structure for overseeing the corporation's strategic direction and management to ensure that it effectively meets its mandate and objectives [12].

Corporate Governance is the relationships among stakeholders in the process of decision making and control over firm resources [13].

Corporate Governance is the framework of rules, relationships, systems and processes within and by which authority is exercised and controlled in corporations [2].

### **Corporate Governance components**

Based on [8], Corporate Governance has mainly three components: Adequate disclosures and effective decision making; Transparency in business transactions; Commitment to values and ethical conduct of business. It is also about openness, integrity and accountability.

According to [14], the main attributes of good Corporate Governance include: Reduction of risk; Stimulation of performance; Improved access to capital markets; Enhancement of marketability of goods and services; Improved leadership; and Demonstration of transparency and social accountability. On the other hand, based upon [15], Corporate Governance involves the two dimensions of Performance and Conformance. Performance is defined as monitoring the performance of the organisation and CEO, setting the organisational goals, developing the strategies for achieving them, and being responsive to changing environmental demands including the prediction and management of risk. Conformance is defined as compliance with legal requirements, Corporate Governance, industry standards, and accountability to relevant stakeholders. In addition, based upon [16], [17], [18], and [19]; some

aspects or values of the Corporate Governance are *Accountability, Transparency, and Responsibility*. Also, the responsibility and accountability of individuals for reporting and investigating reports of unethical practices has been recommended [2].

### **Corporate Governance and Ethics**

Corporate Governance is about ethical conduct in business. Ethics is concerned with the code of values and principles that enables a person to choose between right and wrong. The managers have to make decisions based on a set of principles influenced by the values, context and culture of the organization. Ethical leadership is good for business as the organization is seen to conduct its business in line with the expectations of all stakeholders [8]. According to [4], the codes of Ethics in the Quran and in the Bible are as follows:

1. Codes of Ethics in the Bible: Honesty, Integrity, Uprightness
2. Codes of Ethics in the Quran: Uphold Equity, Give Full Measures, Do Not Cheat, Do Not Engage in Corrupt Practices, Be Honest With All People, and Be Truthful With All People

Since the Corporate Governance, responsibility, and transparency have close relationship with each other; therefore; if the organizations focus on the concept of Corporate Governance, they will be able to solve most of their problems. Corporate Governance also transpires the jobs at the organizations and may create confidence among the employees and all the stakeholders who utilize the productions or services of the company.

### **Corporate Governance and Economy**

Corporate Governance is a key element in improving the economic efficiency of a firm. It helps assure that corporations operate for the benefit of society as a whole. While large profits can be made taking advantage of the asymmetry between stakeholders in the short run, balancing the interests of all stakeholders alone will ensure survival and growth in the long run. Companies need to recognize that their growth requires the cooperation of all the stakeholders; and such cooperation is enhanced by the corporation adhering to the best Corporate Governance practices [8].

Corporate Governance has become an important topic in transition economies in recent years. Directors, owners and corporate managers have started to realize that there are benefits that can accrue from having a good Corporate Governance structure. Also good Corporate Governance helps to increase share price and makes it easier to obtain capital [14]. In addition, Corporate Governance has been linked to the survival and productivity of the firms [7].

Corporate Governance is critically important to a country's economic growth and stability, because it provides the credibility and confidence in management that is fundamental to capital markets [20]. Also, there is a widespread belief that the quality of Corporate

Governance and investor protection can affect the performance of firms and economies [1]. Corporate Governance will also promote confidence in the business world, increasing canalization of resources to the capital markets, and wide involvement of society in the process of economic expansion [6].

### CORPORATE GOVERNANCE AT THE ELECTRIC DISTRIBUTION COMPANIES

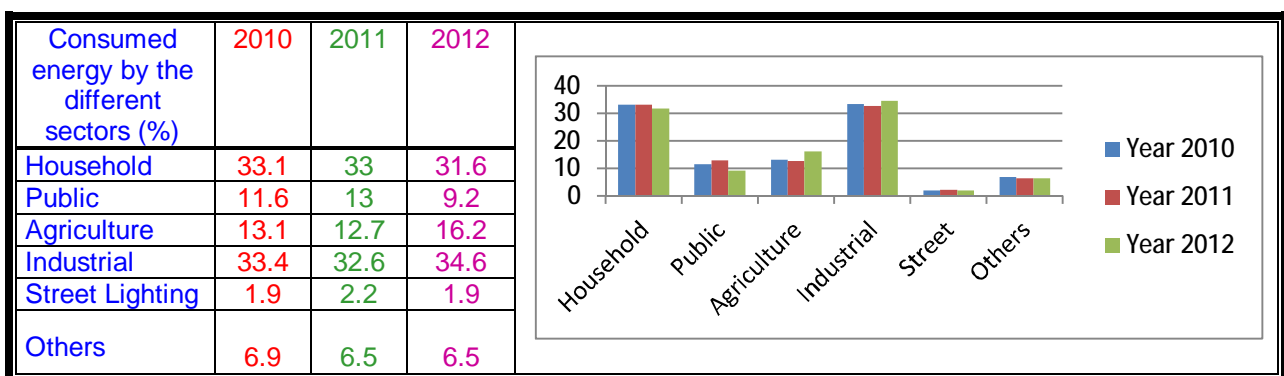
Based upon [21], global energy consumption grew by 2.5% in 2011. In addition, according to [22], the year 2012 saw a slowdown in the growth of energy consumption globally, partly as a result of the economic slowdown. So, it can be concluded that if there was a growth in global economy, the world might be encountered with another growth in energy consumption. Moreover, based on [23], total energy consumption is expected to double by 2050. Therefore, the problem of energy consumption is still a vital issue and it must be solved via a global cooperation. In Iran, the Targeted Subsidy Plan has had a key role in optimal consumption of energy among the various customers especially the household. A falling trend in energy consumption in some sectors specifically in households during the years 2010-2012 considering the available information has shown in Table 1. Furthermore, focusing on the two major sectors of Agriculture and Industry shows the variation of consumption, meanwhile; the consumption growth in industrial and agricultural sectors during 2011-2012 indicates a GDP improvement in the aforesaid sectors.

Attention must be paid that if the Iranian electric distribution companies wanted to neglect the national

and public benefits and focus on their profits, they do not need to persuade their customer to save energy and they could earn more profit by consuming energy especial at the Southern Khorasan Province that the annual delivery of the power plants is at least three times of the annual consumption, but national benefit was the main reason they focus on encouraging people to optimize their energy consumption. Therefore, focusing on Corporate Governance will accelerate reaching the national benefits. So, one can conclude that in electric power industry, economic-related affairs means lack of constructing new power plants, even though, the consumption of energy brings liquidity to the electric distribution companies, but it will be a temporary profit but in long-term, it would not be considered as a profit.

For developing Electric Power Market and converting the electricity to an economic good, it should be noted that interaction among the various models of Corporate Governance will be inevitable due to the increase in volatility of capital in the global level and its effects on the capital global market. There are also some essentials for inclining the electric power industry toward the Corporate Governance such as creating opportunity for decreasing the costs and improvements in controlling the subsidiaries of Tavanir, necessity of the electric power industry to invest for supplying the required resources for meeting the national power demand, economical and legal essentials for improving in productivity, and the role of Corporate Governance in providing the necessary background for promoting the productivity [5].

Table 1: Consumption Indices in Iran based on Tavanir Statistical Report (2013)



Together with the Iranian Targeted Subsidy Plan, the media had a considerable role in customers' attitudes for optimizing energy consumption. Also, persuading customers for using CFL and LED lamps could reduce the peak value all over the country. As an example, replacing incandescent light bulbs by CFL and LED lamps by the customers of the SKEDC saved 12 MW in annual peak in 2010 and it's one of the most important

factors that introduced the Southern Khorasan Province as the minimum electric energy consumer in Iran so that the monthly average consumption of household customers at the aforesaid province was determined 118 KWH by the holding company of Tavanir in its 2011 Statistical Report, meanwhile, the average was also specified 102 KWH in 2012. What is the efficient strategy which has to be considered by the electric

utilities to ensure the optimal trend of energy consumption? The answer to this question is *emphasizing on the Corporate Governance*.

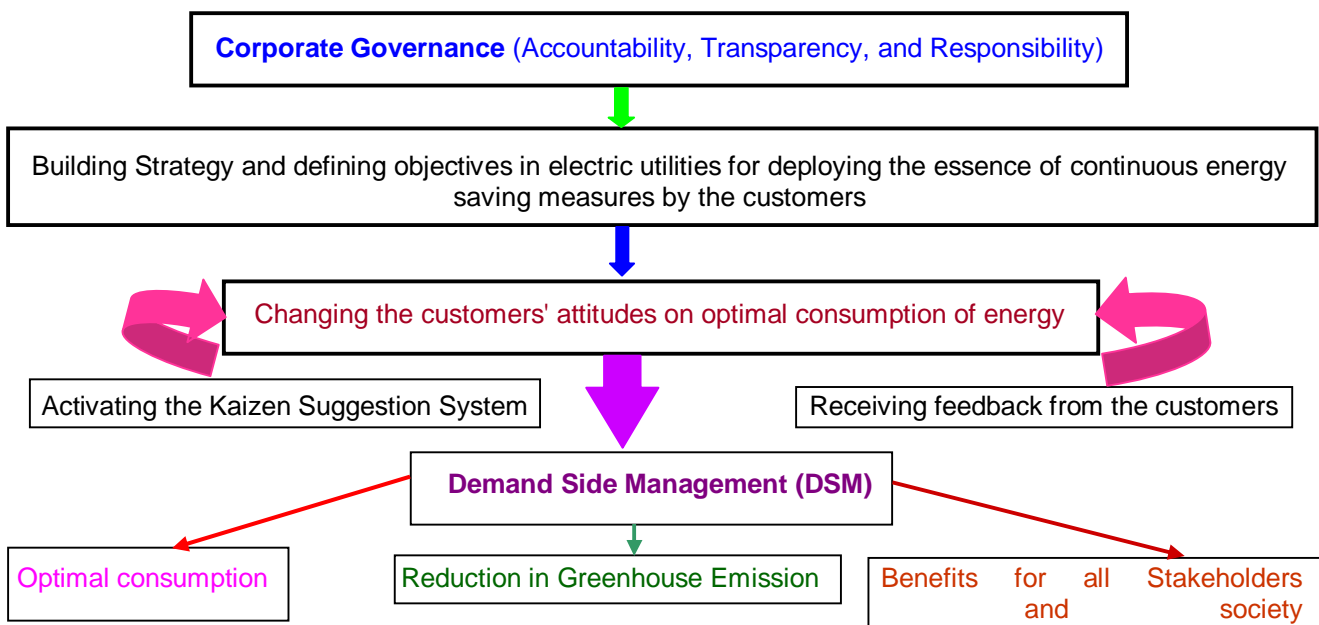
Although optimizing the energy consumption by the various customers in Iran has been rationally fulfilled after executing the Targeted Subsidy Plan, focusing on Corporate Governance will be crucial for continuing the trend of energy saving behaviors by the customers.

Having an efficient and continuous power with minimum outage is the prominent right of each customer; and electric utilities must be responsible for any deficiencies in power quality, meanwhile, they should have an appropriate interaction with their customers for optimal usage of energy. According to [24], the power companies need to be able to receive and respond to customer enquiries in a positive and professional manner and also the customers need to feel that the suppliers are facing their responsibilities and that they safeguard the customers' interest properly. On the other hand, power industry needs satisfied customer and a good reputation as well.

Subsequently, according to my previous studies and also my poster presentation at the 9th International Management Conference (IMC) held on December 2011 in Tehran, I've designed a model (as shown in

Figure 1) that can be utilized in electric distribution companies not only in Iran but also all over the world. Since the Corporate Governance focuses on the three components of *Accountability, Transparency, and Responsibility*, it will be possible to build a strategy and define objectives in electric distribution companies to deploy the essence of continuous energy saving measures among their customers. They will also be able to change their customers' attitudes on optimal consumption of energy. In addition, the Kaizen Suggestion System will be helpful for the companies to receive the suggestions inside and outside the organization and utilize the applicable suggestions for meeting the requirements of the organization especially in the field of energy saving objectives. Furthermore, receiving the customer behaviors through the media will have a key role in directing the companies toward their goals. Also, the results of the mentioned measures will be DSM that will lead to optimal energy consumption, reduction in greenhouse emission, and will create many other benefits for all the stakeholders and the society.

Figure 1: A model for energy saving based upon the Corporate Governance Pattern



### CONCLUSION

The mission of the electric distribution companies is the delivery of the efficient, continuous and uninterrupted electricity to their customers. On the other hand, the managers of these companies expect their employees to be a good accountable and responsible to their customers. The process of accountability of the electric

utilities was restricted to control the outages, rebuild the destroyed networks, and construct new grids; but if these utilities focus on Corporate Governance, they will benefit many advantages such as: postponing the construction of new power plants as a result of high energy consumption, transpiring their employees' jobs, energy saving by their customers, receiving the customers' feedbacks and suggestions for improving the productivity, and attaining the organizational goals.



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