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# CSR As A Tool To Cope With Economic Crises: The Case Of TEI

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#### **Abstract**

This paper builds upon the existing literature by firstly illustrating the corporate social responsibility as a general concept and secondly exploring how this model is applied to cope with economic crises in TEI. In this paper it is aimed to examine the impacts of voluntary CSR projects on TEI's both financial performance and human recourse motivations by using a semi-structured interview.

Keywords: Corporate social responsibility; the economic crises; aviation industry; TEI; human resource strategies.

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# 1. Introduction

The purpose of this study is to stress the importance of the corporate social responsibility and to show how it is used as a tool to cope with the global economic crises in aviation industry.

The global crises in 2008, the high fuel prices and mortgage crises, affect deeply the aviation industry same as in other industries. All over the world today, all industries try to deal with these crises through increasing their responsibilities to society and the environment comparing to the crises in 1930s to 1990s. Early in 21st century the sustainable development concept became popular both in production and service industry. For the economic and environmental sustainability of aviation industry all actors try to reach the fuel efficiency by aerodynamic designs, light material improvements and number of significant advances in engine design. Corporate social responsibility (CSR) will help to achieve the company's long term strategic goals in social and economic benefits and decrease the significant environmental impacts.

In order to manage successfully the global economic crises, the actors' aim are to minimize costs and maximize revenues of companies in service and production processes with the prepared and implemented

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innovative crises plans in aviation industry. While companies improving their business efficiency and reducing costs they became more sensitive to the future of human and the nature through CSR applications that help the companies managing the risks.

# 2. Literature Review

A modern concept of corporate social responsibility (CSR) has evolved since the 1950s, formalized in the 1960s and proliferated in the 1970s [1]. CSR is becoming an essential practice for businesses. Corporate Social responsibility can be defined in basic terms as the voluntary commitment of a firm to contribute to social and environmental goals [2].

The rising awareness of social consciousness and actions leading to commercial success of firms using applications include with in charitable donations, cause-related marketing, sponsorships, codes of ethics, health and safety practices, environmentalism, and support for employee volunteering [3] [4] [5].

Support for employee volunteerism is emerging as an important tool through which companies demonstrate CSR [6] [7]. While CSR is widely contested, it can be defined as treating the stakeholders of the firm ethically or in a responsible manner. Moreover, enterprises have to consider that simply behaving in a socially responsible way is not enough to improve stakeholder relations [8] [9]. From a profit-seeking firm's perspective, implications and benefits of investments in socially responsible activities are important matters to be considered, in particular, in the form of financial performance. This is because if the CSR investment does not enhance a firm's bottom line, such investment may not be considered sustainable in a long run [10]. It is necessary to disseminate CSR activities and use effective relationship management to satisfy all related actors' expectations, and achieve the expected goals of CSR initiatives [11].

# 3. Economic Structure of Aviation Industry and Crises

The aviation sector creates employment for 32 million people all over the world and makes a 7,5% contribution to the world's GDP with 3,560 billion dollars [12]. Airline transportation is quite sensitive to external environment factors such as economic and political crisis, changes in the fuel prices and advances in technology. The growth in demand for aviation industry is proportional to growth in GDP, the sector is substantially affected by any change in the global economy [13].

Rapid technological and structural changes in a very short time, showing the air transport sector in social and economic aspects of globalization are one of the most important components. From that point, as seen in Figure 1, the air transportation sector, guiding the development of world economy, far distances tied to each other by providing social and cultural development of nations with the convergence of globalization brings with it an element. [14]. On the other hand the world's aviation industry has a very sensitive structure to economic developments and social changes.

From the mid-1990s the beginning of new millennium, the aviation industry faced one of the biggest booms in its history. Worldwide increases in GDP, riding on the wave of the new, economy, and a greater demand for travel resulting from globalization stimulated the airlines to healthy growth of around 4-6 percent per year. However, this tendency was not continued in subsequent years. At the beginning of 2000, the economic slowdown brought an end to the growth phase, and the terrorist attacks of 11 September 2001 and the SARS virus in 2003 exacerbated the situation. In 2004, the airline industry probably faced the most difficult period of its existence [15]. Because of high oil prices since 2005, one of the more difficult periods of the aviation industry has started. [16]. The International Air Transport Association (IATA) called on governments, industry partners and labour to address the fuel crisis that is pushing airlines into the red. IATA forecasts a loss of US\$2.3 billion for 2008 based on an average oil price of US\$106.5 per barrel Brent crude. [17]. Aviation sector will be challenged by the introduction of

emissions trading schemes targeting transport (all airlines flying to and from EU territory would join the scheme in 2012 [18]), in addition to the imminent reality of peak oil production, with its consequent impact on oil price [19].



Fig. 1. Key Factors Affecting the Aviation Industry

It is not possible for the companies in the airline sector to manage such outside environmental risks directly. Correct definition and management of internal risks of the aviation sector is quite important for the companies that are low in economic flexibility to continue their activities [15].

# 4. CSR in Aviation Industry

Much of the literature concerning the motivations for CSR concentrates on heavy industries such as the mining, chemical and energy sectors; moreover there is a paucity of research on CSR in the service sector as aviation industry. The largest environmental impact of aircraft as air pollution, noise pollution and global warming, are often excluded from regulatory attempts at controlling environmental impact, thus, demonstrating a need for CSR in the aviation sector [2]. Until today, there have been several studies examining the practices and communication of CSR in aviation industry [20] [21] [22]. Leading companies in aviation industries, driven by companies' stakeholders, consumers, societies and governments, are accelerating initiatives to demonstrate their CSR commitments. For example, General Electric initiated "Ecomagination" (a neologism combining ecology with imagination) as its strategic key word and ever since has continued to prepare extensive reports on environmental issues. Another; airlines including British Airways, SAS Group, Cathay Pacific an Dragon air launched carbon-offsetting programs to help fund environmental projects [1]. Moreover; British Airways chose to engage in CSR because it is a tool to help achieve the company's long term strategic goals in providing growth opportunities around airports; improving business efficiency and reducing costs through waste and energy programs provided a strong business case for CSR [23]. CSR is incorporated within aviation firms' vision, mission, values and goals [24]. To be a dynamic global aerospace industry; it is necessary to realize their vision as continuously delivering exceptional performance, to deliver sustainable value creation in business for all stakeholders, benefiting local communities with the employment and career development opportunities within their operations [25]. The companies also thought CSR could help them with risk management by identifying risks to health, safety and environment that could hinder its opportunity to attract investors and grow the business [26].

#### 5. Methods

As a multinational company TEI is a private leadership CSR issue and positive affect the CSR to invest practices to overcome the risk of global economic crises in Turkish aviation industry.

The aim of this case study is to analyze the TEI's CSR strategies how to overcome the global risks by considering responsibilities to the employees, to have an environmentally friendly manufacturing in a socially responsible way. For that reason; the desktop research and the semi-structured interviews conducted with the human resource manager and the operation directorate of TEI to determine the reflections on how to reach more sustainable development. It is found that, TEI established sufficient human resources management strategies to reach continuous improvement process of operating with the very well-equipped staff. The firm's goal is to be a lean productive company with the help of CSR projects. It is thought to be a good example for the rest of the actors in this industry.

# 6. Findings

# 6.1. Background of TEI

TEI is a joint-venture company established in 1985 with the partnership agreement signed by Turkish partners (53.78%) and General Electric (USA) (46.22%). TEI's Turkish partners are TUSAS-Turkish Aerospace Industries INC., Turkish Armed Forces Foundation and Turkish Aeronautical Association.

TEI' core business is to manufacture aircraft engine parts (with engine assembly and overhaul). Marketing, customer support service and R&D are also important operations come after the core business.

TEI has proved itself in aviation with both national and international projects successfully engineered for aircraft and helicopter engines in military and commercial fields from its first years on. TEI is taking firm steps forward to be the main manufacturer of aircraft engines with its constantly developed infrastructure, manufacturing, engine assembly, testing, maintenance, repairing, and revision and design capabilities; its service capacity exceeding customer expectations and its quality applications.

Determining its vision as "being the main manufacturer of a worldwide, high quality and competitive aircraft engine", TEI's mission is "building a permanent aircraft engine industry in the country providing products and services which will develop technological basis of aviation and space industry".

Export in 2009: 155\$ million USD

Export till establishment (Inc.2009): 1.235\$ million USD

Total sales

2007 247.6 million USD 2008 310.0 million USD 2009 283.2 million USD 2010 budget 285.0 million USD 2011 number of labours 1100

#### 6.2. CSR and TEL

There are various global guidelines and instruments for corporate responsibility such as [27]; Caux Principles for Business: (issued in 1994), Global Reporting Initiative (GRI): (issued in 1999, but development is ongoing), Global Sullivan Principles: (issued in 1999), OECD Guidelines for Multinational Enterprises: (revised in 2000), Principles for Global Corporate Responsibility - Benchmarks: (revised in 1998), Social Accountability 8000 (SA 8000): (issued in 1998), United Nations Global Compact: (issued in 1999).

TEI do not apply any international CSR reporting standards. However, TEI has ISO 14001 Environmental Management System, OHSAS 18001 Occupational Health and Safety management System. With these management systems, risks and hazards are decreased; laws, regulations and requirements related to environment are met. And EHS policy and planning, application, assessment and development activities are implemented. Besides that TEI Strategic Plan 2023 includes various, innovative CSR projects. 2011 is declared as "the year of innovation and automation". From top to operating management, each level and individual has its own goals. As a consequence of leadership understanding, every employee and director are responsible to conduct their own goal that some of them are related to CSR application projects as well.

TEI, the owner of the 1984 TUSIAD-Kalder Quality Award, encourages creativity, innovation, continuous development and has made innovation an integral part of its culture with the use of 6 sigma methodology.

Table 1. Goals and CSR Indicators

INDICATORS	Social	Environmental	Economic
GOALS			
TEI Strategic Plan 2023		+	+
Annual Plan	+	+	+
Annual Goals of Departments	+	+	+
Annual Goals of Personnel	+	+	+
Suggestion system		+	+

TEI has an Individual Suggestion System. It aims to put all ideas of blue collar workers who work in and out of manufacturing lines into practice and to support the competitive structure and provide means to develop day by day. Being innovative and different is penetrating into the structure of the company.

As a result of the interview it is found that there are voluntary, socially responsible, ethical principles and center of excellence ideas are motivating the TEI CSR Projects.

Table 2. Motivations for CSR projects in TEI

	MOTIVATIONS	Yes	No
CSR PROJECTS			
Long-term financial strategy		+	
Eco-efficiencies		+	
Competitive advantage		+	
Good corporate citizenship		+	
Image enhancement		+	
Stakeholder pressures			+
A desire to avoid or delay regulatory action			+

TEI arranges career development programs to meet the need of technicians. Career development programs have been organized in cooperation with Turkish Labor Institution in order to develop

professional qualifications of vocational high school graduates and contribute to employment in our country. Candidates graduated from related departments of the high schools can participate to training programs after an exam.

Candidates passing the exam are trained according to their job in TEI and at the end of the training, ones seen successful after an evaluation are employed at proper situations. With this program, vocational high school graduates acquire qualifications and are trained to meet the requirements of workforce market.

TEI, within the frame of protocol signed with Anatolian University, School of Civil Aviation, gives students the opportunity of training on aviation and aircraft engines since 1989. Students spend one semester taking theoretical and practical education. With that cooperation, TEI aims at showing students the applications of knowledge they learnt in the university and decreasing the difficulties lived when they start working life. With the cooperation agreements, students had the opportunity to do master's degree.

# 6.3. CSR Project in TEI

<u>Retirement and compulsory military service:</u> During the economic recession, instead of lay-off the personnel TEI organized as young / new comer staff to do their compulsory military service and old/at retirement age staff to retire in a good conditions.

<u>Internal resources for buildings:</u> Outsourcing of some services has been decreased by the help of the voluntary employee for the routine jobs such as maintenance and to distemper the factory and the other buildings.

<u>Reycling:</u> Before the global economic crises while waste wooden pieces were sold in lower prices after the recycling project the idle wood pieces are being transferred to the useful equipment –i.e. table, chair for the factory. Most of them were given to the nearest school.

Projects are developed to decrease the amount of consumables and fabricating materials. Special team is assigned to develop and implement the recycling of consumables at the production line. By recycling the cutting fluid at production line TEI became more economical, environmentally friendly and innovative.

<u>Alternative energy systems:</u> TEI had been using natural gas for heating in its buildings. Reducing the cost of energy supply TEI engineers developed a project by using the available big compressors to have hot water and heating for energy efficiency.

Sun energy: Hot water for daily use at the buildings is produced from the sun energy system designed and implemented by TEI employee.

<u>Lightining:</u> TEI reached 50 percent saving by shifting the indoor and outdoor lightening in the area of the plant. It is estimated as a result of the measurement conducted by quality department.

<u>Waste water:</u> TEI in production use deionized water. That causes 50 percent of waste water. Artificial lake was built using this water. Personnel motivation is increased when they are drinking their tea and coffee next to the lake while feed some fish and duck in this refreshment area.

<u>Wind and sun energy:</u> There are several projects written by the employee for the factory, but the climate and the site of the factory did not allow using wind energy as electrical energy supply. The researchers are continuing to shift sun energy to the electrical energy. However, this job is beyond the

employee of TEI and outsourcing of these projects will be expensive. TEI managers think this issue is under the responsibility of the government same as in Europe.

Table 3. TEI projects and CSR outputs

	CSR OUTPUTS	Social	Environmental	Economic
PROJECTS				
Retirement and compulsory military service		+		+
Internal resources for buildings				+
Reycling			+	+
Alternative energy systems			+	+
Sun energy			+	+
Lightining			+	+
Waste water			+	+
Wind and sun energy		+	+	+

Applying CSR projects during the economic recession, TEI saved annually:

- 3500kwh energy
- 10 percent cutting fluid
- 10 percent wood
- 20000m3 natural gas
- 27000 m3 water.

TEI provides appropriate treatment and disposal, supports efficient use of water-gas-electricity energy and searches for the opportunities of sustainable development to provide improvement of the system. As a result of savings and productivity improvement the amount of; waste oil, purifying mud, contaminated waste, aluminum oxide waste, waste fuel, waste penetrate, waste solvent, waste fluorescent, waste battery/cell, CO2 greenhouse gas and waste acid have been decreased substantially.

#### 7. Conclusion

In recent years the significance of CSR for aviation industry has increased. The industry in Turkey is also trying to satisfy the socially and environmentally conscious customers.

Particularly in Europe, CSR applications and sensitivity of environmental issues have been increasing both in manufacturing and air travel field. There are various projects under the manufacturing area such as; manufacturing of engine parts for fuel efficiency, interchangeable smart designs, environmentally friendly engines (less noise and emission). Air carriers lead the industry to have number of the environmental projects by demanding the aircraft according to the European Union criteria resulting from the emissions trade. The increasing awareness and the demand for environmentally friendly activities make all the actors in aviation industry to focus on CSR projects voluntarily.

Despite growing business usage of CSR, some commentators claim that little has been achieved in changing organizational practices, but TEI is not a good example for this hypothesis. This report examines current practices and future trends in CRS in TEI by interviews with directory of operations on their CSR implementations. TEI developed and implement procedures to prevent activities and conditions effecting employee's health, safety and environment. TEI shapes its future with the high esteem it holds for the human being, with the employment it created and the investment it made. TEI's human resource policy help to create a personnel profile consisting of highly qualified, motivated and contributed the competitive power.

This article presented CSR awareness with their projects in TEI. It showed that implementing CSR match organizational innovative character by the help of individual suggestion system. The commitment

of the management, the structured way of working and the introduction of that system to ensure that everybody in the company cooperated leads the TEI to success.

TEI group is aware of the importance of CSR for its sustainability. It will be a good suggestion for TEI both to increase their CSR activities and to set up an annual sustainability/CSR report according to the guidelines of Global Reporting Initiative to make the aware of the other actors in this industry.

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