A COMPARATIVE STUDY OF AIRLINE COMPANIES FROM THE SOCIAL RESPONSIBILITY PERSPECTIVE CASE STUDY

Houshang Taghizadeh
Department of management, Tabriz Branch, Islamic Azad University, Tabriz, Iran
taghizadeh@iaut.ac.ir

Abdolhossein Shokri
Department of management, Bostanabad Branch, Islamic Azad University, Bostanabad, Iran
shokri.hossein@ymail.com

Abstract

Responding to or satisfying the demands of the external beneficiaries including customers, suppliers, distributors, environmentalists, and the residents of the productive or service-giving activity location, while preserving the benefits of the internal beneficiaries including the owners or share-holders and the personnel of the organization is known as social responsibility. The present research has been carried out with the purpose of comparing the Islamic Republic of Iran Airline Companies from the viewpoint of social responsibility. The research method is descriptive, and statistical population includes customers who travel at least five times monthly with various IRI Airline companies, including 150 individuals. Due to

the limitedness of the population, no sampling was carried out. A researcher- devised questionnaire was used for data collection. The validity of the questionnaire was confirmed by content validity, and its reliability was evaluated through the use of Cranach Alpha coefficient based on Carroll's approach. For data analysis, the researchers made use of TOPSIS method and Shannon's Entropy. The results indicate the rank of each company with regard to the rate of attention paid to corporate social responsibility.

Keywords

Corporate Social Responsibility, Ethical Dimension, Economic Dimension, Legal Dimension, Philanthropic Dimension.

1. Introduction

Daft defines organization as a social institution which has a tendency toward a goal, which has been designed and structured with thought and contemplation, the activities and systems of which are coordinated to achieve these goal, and which communicates with the external environment in this route. Accordingly, an organization is indeed an open system which interacts with its surrounding environment. The organization needs to communicate with its surrounding environment in order to supply the needed resources, to interpret and act on the environmental changes, and to control and coordinate the internal activities to confront the environmental uncertainty (Daft, 2001). In fact, business organizations are open systems which should not only design their activities to earn profit but also take into account what the society expects from them and their activities (Smith & Johnson, 1996). Furthermore, organizations react against their opposing beneficiary groups through determining and defining good and bad. They act in such a way that they are considered to be beneficent from the viewpoint of customers, governmental institutions and organizations, share-holders, and the whole society. They are concerned lest one of their actions might have undesirable effects on the beneficiary groups. All these factors cause organizations to be bound by ethics while taking decisions (Pain, 1994). Observing these factors is referred to as social responsibility. Corporate social responsibility refers to activities that lead to the creation of companies which contribute to the welfare of the society beyond their own desires and interests. With the growth of interest in corporate social responsibility, large-scale companies in different industries have expanded their social responsibility activities together with the share-holders,

consumers, the society and government in order to expedite fulfilling their commitments related to corporate social responsibility and to become a pioneer in this field (Kang et al., 2009). However, the research done in this regard shows that there is not yet a clearly-defined and predetermined method which can make it possible for the companies to measure the rate of attention to social responsibility. Hence, the present article aims to compare the Islamic Republic of Iran Airlines from the perspective of social responsibility based on Carroll's approach, and to achieve this goal, it has used TOPSIS method.

1.1 Research Question

Which of the IRI Airline companies pays more attention to social responsibility?

2. Corporate Social Responsibility

In 1953, Harvard Bowen, with his influential book "The Social Responsibilities of the Businessman" in the academic literature on management and organization, put forward the concept of social responsibility for the first time. In the book, Bowen stated that the social responsibility of a businessman consists of commitment to following the policies, decisions, and measures which are in line with the social goals and values (Weihrich & Koontz, 1993).

Social responsibility and spiritual values were also the focus of attention during the 1960s by the vanguard of the concept of strategy. Igor Ansoff has mentioned the effect of non-economic goals on the economic goals of the company, including topics such as philanthropy, personal ethics, social responsibility, social statues, and reputation (Mele & Guillen, 2006).

The definition that BSR (business for social responsibility) institute gives of social responsibility is: "realizing the trade success through respecting moral values, people, society, and environment". Mc Williams and Siegel defined social responsibility as "measures taken for the improvement of social welfare beyond the company's benefits and legal obligations (Tsoutsoura, 2004).

By combining these definitions, we can define social responsibility of the firms as follows: Corporate social responsibility is responding to and satisfying the expectations of external beneficiaries including customers, suppliers, distributors, environmentalists, and residents of the productive or service-giving activity location, while preserving the benefits of the internal beneficiary groups including the owners or share-holders, and the personnel of the

unit.

Carroll divides corporate social responsibility into four subsystems, namely, economic, legal, ethical, and philanthropic responsibilities which are undertaken voluntarily (Carroll, 1999). The economic dimension deals with how to allocate and distribute resources, goods and services, which can be of importance both in the influence of the behavior of the companies on the economic indices and in the competition among them to gain profit. Organizations can act in such a way that the allocation of the assets and the distribution of productions could be done in a manner that the efficiency of production and consumption would be high and the firms would enjoy long-term and reasonable profit. The legal dimension of social responsibility relates to the observation of the rules and regulations compiled by the government on business, which specifies the minimums which are socially considered good or bad. This dimension reflects a kind of distrust regarding the desirable performance of the firms in relation to the households, society, and environment, which is manifest in the form of civil and penal laws. Civil laws determine the duties and rights of the people and organizations, and penal laws specify the penalties related to crimes (Pain, 1994). The ethical and moral dimensions related to social responsibility have recently attracted greater attention. These refer to the behaviors that the society expects from business centers, but they are not codified in the law books. Of course, some of the neo-classic economists such as Milton Friedman believe that if companies provide citizens with profitable goods and services, they will accomplish their social responsibility (Friedman, 1970). The philanthropic and charitable dimension of corporate social responsibility refers to the activities that organizations perform in order to help the society. Philips in Australia donates 70.000 euros annually to help the poor and needy children in Australia whose parents can't afford to pay for their school expenses (Weber, 2008).

Velde et al., (2005), by reviewing the literature related to corporate social responsibility in different articles and books as well as reviewing the concepts related to business ethics, have divided corporate social responsibility into five dimensions: 1) The work-place conditions dimension, which means constant improvement of working conditions, evaluation of job skills and recruitment process, improvement of industrial relations and arrangement of social dialog between the top management and the personnel; 2) The leadership dimension,

which refers to the rate of clarity and efficiency of the management of a company in dealing with share-holders and other beneficiaries; 3) The social and local community dimension, which means the manner of aligning the company's benefits with the benefits of the society and the domain where the company performs its operations; 4) The environmental dimension, which deals with the rate of the company's attention to the effect of its operations on environmental pollution; and 5) The business behavior dimension, which refers to the attention paid to the needs and desires of the customers and suppliers, and an inclined and lucid attitude towards them (Velde et al., 2005).

With regard to the importance of corporate social responsibility and the necessity of paying attention to it, various researches have been carried out in different organizations, some of which are cited as follows:

Wang, et al., (2015) evaluated the rate of corporate social responsibility of airlines, using entropy weight and Grey relation analysis.

Cowper-Smith & Grosbois (2011) in a study entitled "The Adoption of Corporate Social Responsibility Practices in the Airline Industry" identified initiatives related to corporate social responsibility (CSR) in the airline industry and evaluated the overall state of their adoption as reported by members of the three largest airline alliances. The results showed a stronger focus on environmental issues than on the social or economic dimensions of CSR. Of the seven major environmental themes examined, emission reduction programs predominate. Other environmental issues receive much less attention, with no single other initiative implemented by all airlines. Four social and environmental themes were found, including employee wellbeing and engagement, diversity and social equity, community wellbeing and economic prosperity.

Tsai & Hsu (2008) in a study entitled "Corporate Social Responsibility Programs Choice and Costs Assessment in the Airline Industry-A hybrid model" developed a technique for operationalizing CSR programs for air transportation within the context of limited physical resources.

Lynes & Andrachuk (2008) in a study entitled "Motivations for Corporate Social and Environmental Responsibility: A case study of Scandinavian Airlines" developed a model to illustrate how various external, sector-specific and internal influences for CSER are

interpreted, then shaped them into action at the level of the firm. Using an in-depth case study approach, this model is then applied to one firm - Scandinavian Airlines (SAS).

3. Research Tools and Method

This is an applied research regarding its objective and a descriptive study with regard to the research method. The statistical population of this research includes 150 customers of various IRI Airline companies who travel at least five times monthly with these airlines. These companies' names are as follows: Aseman (A1), Kish Air (A2), Caspian (A3), Iran Air (A4), Qeshm Air (A5), Ata (A6), Taban (A7), and Mahan (A8). Due to the limited number of the companies and the nature of the research method, no sampling was carried out, and the total population was surveyed.

It consists of 20 questions which measure the dimensions of corporate social responsibility. The validity of the questionnaire was initially confirmed through Content validity; i.e., it was first distributed among some university lecturers to real and gives their comments on its validity. The validity was confirmed after the comments were taken into account and some of the questions were corrected. In order to determine the reliability of the questionnaire, the researcher made use of Cranach's alpha coefficient. This test was used on the main sample and for each dimension separately. The results are shown in Table 1, which indicates the reliability of the questionnaire.

Table 1: *The Results of Evaluating the Reliability of the Questionnaire*

Dimensions of Social Responsibility	Economic	Legal	Philanthropic	Ethical
Cranach's Alpha Coefficient	0.73	0.87	0.76	0.71

In the present research, TOPSIS method and Shannon's entropy have been used for data analysis. The TOPSIS method has been applied for the evaluation and comparison of the companies in the statistical population. In using the TOPSIS method, the weights of the indices are needed; therefore, the weight of each corporate social responsibility dimension, which is Shannon's entropy method, will determine the weight of the indices, which in turn will act as the input for TOPSIS technique.

According to TOPSIS method, a positive ideal solution maximizes the benefit criteria or attributes and minimizes the cost criteria or attributes, whereas a negative ideal solution

TOPSIS method is expressed in a succession of six steps as follows (Kazan et al., 2015; Wanke et al., 2015; Tzeng & Huang, 2011)

Step 1: Calculate the normalized decision matrix. The normalized value is calculated as follows (equation 1):

$$n_{ij} = \frac{x_{ij}}{\sqrt{\sum_{i=1}^{m} x_{ij}^2}} \qquad , i = 1,2,...,m , \quad j = 1,2,...n \qquad (1)$$

Step 2: Calculate the weighted normalized decision matrix. The weighted normalized value is calculated as follows:

$$V_{ij} = n_{ij}.W_j \; ; i = 1,2,...,m \text{ and } j = 1, 2,..., n. \qquad (2)$$

Where W_j is the weight of the j criterion or attribute and $\sum_{j=1}^{n} W_j = 1$.

Step 3: Determine the positive ideal (A^*) and negative ideal (A^-) solutions:

$$A^* = \{(\max_i v_{ij} \mid j \in C_p),(\min_i v_{ij} \mid j \in C_n)\} = \{v_j^* \mid j=1,2,...,m\} \qquad (3)$$

$$A^- = \{(\min_i v_{ij} \mid j \in C_p),(\max_i v_{ij} \mid j \in C_n)\} = \{v_j^- \mid j= 1,2,...,m\} \qquad (4)$$

In (3) and (4), C_p and C_n are the positive and the negative attributes, respectively.

Step 4: Calculate the separation measures using the m-dimensional Euclidean distance. The separation measures of each alternative from the positive ideal solution and the negative ideal solution, respectively, are as follows:

$$\check{S}_i = \sqrt{\sum_{j=1}^{m}(v_{ij} - v_j^*)^2} \quad ; i = 1,2,...,n \qquad (4)$$

$$S_i = \sqrt{\sum_{j=1}^{m}(v_{ij} - v_j^-)^2} \quad ; i = 1,2,...,n \qquad (5)$$

Step 5: Obtain the closeness coefficient and rank the order of alternatives.

Once the closeness coefficient is determined, the ranking order of all alternatives can be obtained, allowing the decision-makers to select the most feasible alternative. The closeness coefficient of each alternative is calculated as:

Step 6: Rank the preference order.

$$CC^* = \frac{\Box_i S^-}{S_i^* + S_i^-} \quad ; i = 1,2,...,m \qquad (6)$$

4. Findings

With regard to the foregoing discussions, in the present article the Islamic Republic of Iran Airline Companies were entered as the choices into the TOPSIS model and the corporate social responsibility dimensions based on Carroll's approach were entered into TOPSIS model as the indices. Afterwards, for data analysis, first each respondent's score was calculated; then, the mean score of all the respondents for each of the choices (companies, A_i) in ratio to the indices (Social responsibility dimension based on Carroll's approach, C_i) was calculated. The obtained numbers were included in a matrix called decision matrix (Table 2).

Table 2: *Decision Matrix of Corporate Social Responsibility for Airline Companies*

	Index / Choice	C_1 Economic	C_2 Legal	C_3 Philanthropic	C_4 Ethical
Decision Matrix	A_1	3.24	4.15	5.39	4.63
	A_2	2.29	3.65	4.35	5.75
	A_3	5.89	2.78	6.24	4.53
	A_4	3.34	4.93	5.58	4.29
	A_5	3.67	4.95	5.47	3.98
	A_6	4.33	5.57	3.85	2.39
	A_7	6.20	5.33	4.12	5.74
	A_8	5.63	5.47	6.12	5.15

Due to the fact that the weights of the indices are considered as inputs in the TOPSIS method and many other multi-index decision-making methods, the weights of the indices were first calculated through the use of MCDM Engine software and Shannon's entropy method, and the results were presented in the form of the weights of the indices in Table (3).

Table 3: *The Weights Calculated For the Indices*

W₁	W₂	W₃	W₄
0.436	0.194	0.126	0.243

For the final comparison of choices, they were compared and ranked through TOPSIS method. Based on the results, the relative closeness to the ideal solution is showed in Table 4 and Figure 1.

Table 4: *The Final Results of Tops is Method*

Company	Symbol	CC*	Rank
Taban	A7	0.891	1
Mahan	A8	0.855	2
Caspian	A3	0.732	3
Ata	A6	0.469	4
Qeshm Air	A5	0.412	5
Iran Air	A4	0.374	6
Aseman	A1	0.353	7
Kish Air	A2	0.315	8
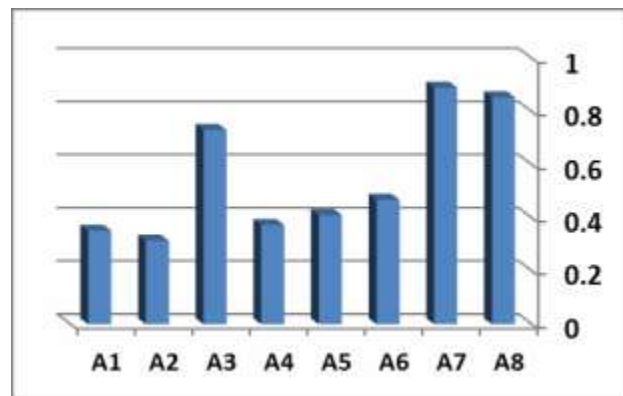
Figure 1: *The Levels of Relative Closeness to the Ideal Solution*

5. Discussion and Conclusion

According to [8], corporate social responsibility is not a one-dimensional concept and can be studied from several aspects. Thus, different researchers in this field have surveyed corporate social responsibility from various standpoints. Perhaps the first and most comprehensive study in the field is Carroll's, which has presented social responsibility dimensions in the form of four components after examining different researches. After carroll other scholars such as Velde, Vermeir & Corten (2005), in their attempts to complete the concepts presented by carroll, put forward corporate social responsibility components under other names. Regarding corporate social responsibility, connoisseurs believe that for reasons such as privatization and transferring economic power from governments to organizations and, as a result, diminishing of governments, governments do not have enough power and resources to solve social and environmental problems, so organizations should assist governments in this regard.

In the present article, the rate of attention that the companies under study pay to social responsibility has been studied through the evaluation and comparison of the active airline companies in the Islamic Republic of Iran. The results indicate that company A_7 is ranked first from the viewpoint of the rate of attention it pays to social responsibility, and the other companies are placed in the subsequent ranks. There were some limitations in the research, some of which can be mentioned here. With regard to the limitations of the questionnaire in realizing the real state of the producers in this research, it is suggested that in the subsequent investigations, besides using a questionnaire, direct observation and check-list be also used, the scores of different data collection tools be combined, and evaluation be based on the combined data. Furthermore, some researchers prefer other methods for ranking the choices, each of which has its own advantages. Therefore, it is suggested that in the future investigations, different multi-index methods be used for ranking, and the results be compared with each other.

References

Carroll, A.B. (1999), Corporate Social Responsibility: Evolution of a Definitional Construct, in Business Society, 38; 268, Sage Publications, pp. 265-295.

Cowper-Smitha A., & Grosbois D. (2011), The adoption of corporate social responsibility practices in the airline industry, Journal of Sustainable Tourism Volume 19, Issue 1, pp.55-79.

Daft, R. (2001), Organization Theory and Design. Cincinnati, Ohio: South Western, pp.12-14.

Friedman, M. (1970), The Social Responsibility of Business is to Increase Its Profits, The New York Times Magazine, New York Times Company, September 13th.

Heinze, K.L. (2005), In the Mood to Give: How and Why Positive Affect Increases the Importance of CSR to Prospective Employees, Northwestern University.

Kang, K.h., Lee, S. & Huth, C. (2009), Impact of positive and negative corporate social responsibility activities on company performance in the hospitality industry, International Journal of Hospitality Management, www. Sciencedirect.com.

Kazan, H.E. Karaman, B.Y. Akçalı & Şişmanoğlu. E. (2015), Assessment of TEOG Examination Success: Topsis Multi-Criteria Decision-Making Method Practice. Procedia - Social and Behavioral Sciences 195: 915-924.

Lynes, J.K., & Andrachuk M. (2008), Motivations for corporate social and environmental responsibility: A case study of Scandinavian Airlines, Journal of International Management, Vol. 14, Issue 4, pp. 377-390.

Mele, D. & Guillen, M. (2006), The Intellectual Evolution of Strategic Management and Its Relationship with Ethics and Social Responsibility, Working Paper, no.658, University of Navarre, IESE Business School, October, p.3.

Pain, L.S. (1994), Managing for Organizational Integrity, Harvard Business Review, March, pp. 106-117.

Smith, K. & Johnson, P. (1996), Business Ethics and Business Behaviour. London: International Thomson Publishing Co, p.28.

Tsai, W.H., Hsu, J.L. (2008), corporate social responsibility programs choice and costs assessment in the airline industry—A hybrid model, Journal of Air Transport Management Volume 14, Issue 4, July 2008, Pages 188–196.

Tsoutsoura, M. (2004), Corporate Social Responsibility and Financial Performance, Working Paper, University of California, Haas School of Business, Berkeley, California, March, p.3.

Tzeng, G.H., & Huang, J.J., (2011). Multiple attribute decision making: methods and applications. CRC Press.

Velde, V.E, Vermeir, W. & Corten, F. (2005), Corporate Social Responsibility and Financial Performance, Finance and Accounting, Vol.5, No.3, pp. 129-138.

Wang, Q., Chong W., & Yang S. (2015), Evaluating Corporate Social Responsibility of Airlines Using Entropy Weight and Grey Relation Analysis, Volume 42, January 2015, Pages 55-62.

Wanke, P., Pestana, C.B., & Chen, Z., (2015), an analysis of Asian airlines efficiency with two-stage TOPSIS and MCMC generalized linear mixed models. International Journal of Production Economics 169: 110-126.

Weber, M. (2008), The business case for corporate social responsibility: a company- level measurement approach for CSR, European Management Journal, No. 26, pp. 247- 261.

Weihrich, H. & Koontz H. (1993), Management: a Global Perspective", McGrew- Hill, New York, Princeton Road, 10th Ed, p. 66.