



The impact of organizational factors on sustainable development of companies with an emphasis on role of innovation capabilities and social responsibility strategies: companies in industrial city

1, Zanjan (A case study)

Marziyeh Salek

Educational Organization, Zanjan, Iran

Abstract

This study aimed to investigate the impact of organizational factors on sustainable development of companies with an emphasis on role of innovation capabilities and social responsibility strategies in companies in industrial city 1, Zanjan. This was applied analytic survey research. A questionnaire was used for collecting the data. The population consisted of all employees and managers of companies which are located in industrial city 1 in Zanjan (N= 275). Using Cochran formula, 160 subjects were selected as sample. The SPSS software was used to estimate the model. The estimation results showed that all components of organizational factors had a significant positive impact on company's sustainable development; however, the positive impact was different among various components of organizational factors.

Keywords: Sustainable Development, Innovation Capabilities, Corporate Social Responsibility Strategies.

Introduction

The sustainable development is one of the key issues which is proposed in the field of social sciences in last few decades. Due to its importance, this concept has attracted the attention of various disciplines experts and scholars such as sociology, economics, politics, anthropology, education, psychology, and particularly social psychology (Kubrick: 13: 2014). Several actors may be identified in the field of sustainable development from government to corporates to citizens. The responsibility-based approach considers the social, economic, and environmental consequences of decisions and activities at all levels. In fact, the organizations are highly demanded to act responsibly in community. By increasing of their impact on sustainable development factors such as economy, society, and environment, the Corporate Social Responsibility concept has been emerged in management world.

Although the concept of (nature of sustainable development) is somehow clear, there are many interpretations and definitions for sustainable development. This ambiguity in the concept of sustainable development is due to its dual nature; it covers both development and sustainability. There are 70 definitions for environment sustainable development in economic and environment literature (Kubrick: 9: 2014).

Analyzing social development outcomes, three dimensions are identified: 1) economy, 2) society, and 3) environment.

The sustainable development has three principle: environmental protection, economic development, and social development. Accordingly, there are three approaches for management of sustainable social development: economic, environmental, and social approach.

However, this study aims to describe the content of companies sustainable development management from social and ecological perspective and also explain the theoretical principles. The research questions are as follows:

- 1) Whether the innovation capability of company impacts significantly on sustainable development of company?
- 2) Whether the corporate social responsibility strategy impacts significantly on sustainable development of company?



Research literature

In a study entitled (The relationship between entrepreneurial marketing and marketing performance through innovation: companies which are active in industrial automation, communications, computers and digital equipment (a case study)), Safari and Bashluni (1393) stated that this study investigated the impact of entrepreneurial research on innovation, taking into account the moderating effect of tendency to learn and organizational structure and evaluated the relationship between innovation and marketing function considering the model. The population consisted of marketing and sales managers and employees in 42 companies in three industrial automation, telecommunications, computer and digital equipment industries. A researcher-made questionnaire with acceptable reliability and validity was used for collecting the data. In total, 250 questionnaires were distributed among managers and employees and 195 questionnaires were returned and were analyzed. The findings showed that the entrepreneurial marketing impacts on innovation and innovation impacts on marketing performance of all three industries. Also, the learning and organizational structure had moderator effect on relationship between entrepreneurial marketing and innovation.

In a study entitled (The relationship between technological opportunities, marketing emphasis, and innovative performance) JafariSangari et al (2014) stated that the company's ability to understand and respond to technological changes is called technological opportunism; it gets more and more important as a source of competitive advantage for managers. This study investigated the dimensions of technological opportunism and its impact on innovative performance of ceramic and tile companies in Yazd. It was applied descriptive field study. A questionnaire was used for collecting the data. The collected data were analyzed using structural equation modeling and all hypotheses were tested. The findings showed that the technological opportunism has strong positive effect on performance criteria such as corporate sales level, profits, and market value.

Zarei (2014) studied the relationship between knowledge sharing and innovation capability in academic libraries. This study aimed to determine the sharing of knowledge, attraction capacity, and innovation capability at central libraries of universities in Tehran in 2014. It was an applied correlation survey study. The population consisted of 190 librarians at central libraries in University of Tehran, TarbiatModarres University, AllamehTabatabai, ShahidBeheshti, and Al-Zahra. Using Morgan table, 123 subjects were selected as sample.

Peikari et al (2014) examined factors influencing the perceived electronic security of organizational sustainability using path analysis method. The findings showed that the technical protection had positive and significant impact on perceived security. The website design had also positive and significant impact on technical protection. Also, the external assurance impacted on inner assurance. There was no significant relationship between external and internal assurance and perceived security.

Methodology

This was applied descriptive cross sectional survey research. A researcher-made questionnaire was used for collecting the data. The population consisted of all employees and managers of companies which are located in industrial city 1 in Zanjan (N= 275). Using Cochran formula, 160 subjects were selected as sample.

$$? = \frac{275 \times 1.96^2 (0.5)(0.5)}{(275)(0.05)^2 + 1.96^2(0.5)(0.5)} = 160.4 \cong 160$$

The SPSS and AMOS software were used to estimate the model.

Table 1: Cronbach's alpha

All variables	Innovation capability	Sustainable Development	Technology of research and development	R & D talents	Corporate Social Responsibility	
0.719	0.784	0.793	0.729	0.700	0.731	Cronbach's alpha



According to above table, the Cronbach's alpha of questionnaire is above 0.7; therefore, the reliability of questionnaire is confirmed. The conceptual model of study is provided considering the base article, literature, and theoretical foundation.

Findings

Demographic characteristics of participants

Gender:

The frequency of participants in terms of gender is provided in following table.

Table 2: Frequency of participants in terms of gender

Gender		
	Frequency	Percentage
Male	113	71
Female	47	29
Total	160	100

According to above table, 71 percent are male and 29 percent were female.

Age:

The frequency of participants in terms of age is provided in table below in 4 groups.

Table 3: Frequency of participants in terms of age

Age class	Frequency	Percentage
Less than 30 years	26	17
Between 31 and 40 years	38	23
Between 41 and 50 years	56	35
More than 50 years	40	25
total	160	100

According to above table, the highest age distribution is for managers 41 to 50 years old and the lowest age distribution is for workers less than 30 years old.

Inferential findings

First hypothesis:

H0: The innovation capability has no significant impact on corporate sustainable development.

H1: The innovation capability has significant impact on corporate sustainable development.

According to findings, the correlation coefficient of innovation capability and corporate sustainable development is shown in table below.



Table 4: Correlation coefficient of first hypothesis

Variables		Dependent variable
Independent variable	Spearman coefficient	0.796
	Sig. level	0.02

According to table above, the correlation coefficient between innovation capability and corporate sustainable development is 0.796 and the significant level is less than 0.05; there is a significant and positive correlation between innovation capability and corporate sustainable development. Therefore, the first hypothesis is confirmed.

Regression analysis of first hypothesis:

Table 5: Regression of first hypothesis

Dependent variable	Coefficient of determination	Confidence level	Regression coefficient	
Corporate sustainable development	0.684	0.000	0.368	Innovation capability
		0.000	0.863	Constant value

The regression coefficient of innovation capability and corporate sustainable development is equal to 0.684; this indicates that 68.4 percent of variance in corporate sustainable development is explained by innovation capability. Also, the innovation capability is suitable variable for corporate sustainable development. The regression equation of first hypothesis may be written as follow:

$$\text{Corporate sustainable development} = 0.368 (\text{innovation capability}) + 0.863$$

Second hypothesis:

H0: The corporate social responsibility has no significant impact on corporate sustainable development.

H1: The corporate social responsibility has significant impact on corporate sustainable development.

According to findings, the correlation coefficient of corporate social responsibility and corporate sustainable development is shown in table below.

Table 6: Correlation coefficient of second hypothesis

Variables		Dependent variable
Independent variable	Spearman coefficient	0.730
	Sig. level	0.02

According to table above, the correlation coefficient between corporate social responsibility and corporate sustainable development is 0.730 and the significant level is less than 0.05; there is a significant and positive correlation between corporate social responsibility and corporate sustainable development. Therefore, the second hypothesis is confirmed.

Regression analysis of second hypothesis:



Table 7: Regression of second hypothesis

Dependent variable	Coefficient of determination	Confidence level	Regression coefficient	
Corporate sustainable development	0.572	0.000	0.787	Corporate social responsibility
		0.000	0.621	Constant value

The regression coefficient of corporate social responsibility and corporate sustainable development is equal to 0.572; this indicates that 57.2 percent of variance in corporate sustainable development is explained by corporate social responsibility. Also, the corporate social responsibility is suitable variable for corporate sustainable development. The regression equation of second hypothesis may be written as follow:

$$\text{Corporate sustainable development} = 0.787 * (\text{corporate social responsibility}) + 0.621$$

Table 8: Multivariate regression model

Dependent variable	Coefficient of determination	Confidence level	Regression coefficient	
Innovation capability	0.629	0.089	0.752	R & D talent
		0.000	-0.106	R & D technology
		0.000	0.147	Constant value

The regression determination coefficient of R & D talent and technology of research and development in innovation capabilities is equal to 0.629; this indicates that 62.9 percent of variance in innovation capabilities may be explained by R & D talent and technology of research and development. The regression model is as follows:

$$1.147 = \text{innovation capabilities} + 0.752 * (\text{R \& D talent}) - 0.106 * (\text{technology of R \& D})$$

Table 9: Multivariate regression

Dependent variable	Coefficient of determination	Confidence level	Regression coefficient	
Corporate sustainable development	0.752	0.089	0.322	Corporate social responsibility strategy
		0.000	0.620	Innovation capability
		0.391	0.127	Constant value

The regression determination coefficient of corporate social responsibility strategy and innovation capability is equal to 75.2; this indicates that 75.2 percent of variance in corporate sustainable development may be explained by corporate social responsibility strategy and innovation capability. The regression model is as follows:



$0.127 = \text{Corporate sustainable development} + 0.322 * (\text{corporate social responsibility strategy}) + 0.620 * (\text{innovation capability})$

Conclusion and recommendations

First hypothesis: The innovation capability has significant impact on corporate sustainable development.

According to findings, the correlation coefficient between innovation capability and corporate sustainable development is 0.796 and the significant level is less than 0.05; there is a significant and positive correlation between innovation capability and corporate sustainable development. Therefore, the first hypothesis is confirmed.

The regression coefficient of innovation capability and corporate sustainable development is equal to 0.684; this indicates that 68.4 percent of variance in corporate sustainable development is explained by innovation capability. Also, the innovation capability is suitable variable for corporate sustainable development.

This is consistent with research results of Safari and Bashlony (2014), JafariSangari et al (2014), Zarei (2014), Mazhari et al (2014), al-Bashir and colleagues (2008), Mac Donuf (2009), Bahrami et al (2012), and Lie and Frederick (2015). This effect is rooted in innovation capability, marketing performance, innovation capability, marketing emphasis and innovative performance.

Second hypothesis: The corporate social responsibility has significant impact on corporate sustainable development.

According to table above, the correlation coefficient between corporate social responsibility and corporate sustainable development is 0.730 and the significant level is less than 0.05; there is a significant and positive correlation between corporate social responsibility and corporate sustainable development. Therefore, the second hypothesis is confirmed.

The regression coefficient of corporate social responsibility and corporate sustainable development is equal to 0.572; this indicates that 57.2 percent of variance in corporate sustainable development is explained by corporate social responsibility. Also, the corporate social responsibility is suitable variable for corporate sustainable development.

This was consistent with research results of Safari and Bashluni (2014), JafariSangari et al (2014), Zarei (2014), Mazhari et al (2014), I-Bashir et al (2008), Mac Donuf (2009), Sharma and Singh (2011), Daniel et al. (2011), and Lie and Frederick (2015). This is rooted in innovation capability, marketing emphasis, social responsibility, and innovative performance.

According to research hypotheses and findings, the following recommendations are provided:

- The managers should make appropriate decisions on appointments of organizational positions and employ those who have talent for research and development to impact positively on organizational innovation.
- The people who are familiar with research and development technology to be employed to use their skills in creation of organizational innovation.
- Since the innovation is important in organization, the factors of organization's sustainable development should be investigated.

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