

# *The Influence of Leadership Factors on the Implementation of ISO 14001 in Organizations*

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Top managers have a key role in implementing the environmental component of sustainable development in the organization. This paper presents the results of the unique research that was conducted among top managers from a variety of large Slovenian organizations, in order to determine the dominant leadership factors that positively influence the implementation of the environmental component of sustainable development (the ISO 14001 standard) in the organization. The research involved 321 large Slovenian organizations. It was found that vision, credibility, collaboration, accountability and action orientation are the dominant leadership factors to be considered by top managers in achieving sustainable development.

*Key Words:* ISO 14001, large organizations, leadership, sustainable development

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## **Introduction**

Since the mid-1990s, the importance of the concept of sustainable development, where economic growth, social cohesion and environmental protection – the so-called ‘triple bottom line’ (Elkington 1997) – are treated equally and are mutually supportive, has increased significantly. In Slovenia, as well as in other countries of the European Union (EU), the principles of sustainable development are gradually becoming realized but with ongoing imbalances in all three components of sustainable development. Of these, the environmental component is the most notable, because rapid economic growth increases pressure on the natural

environment, which is not in line with the objectives of sustainable development (Sachs 2015).

Several countries are adopting rigorous environmental protection measures, but most of them are based solely on strict legislation. For the effective protection of the natural environment, normative regulation of relations between people and nature is indispensable, but not sufficient. As stated by Albino, Dangelico, and Pontrandolfo (2012), initiatives that promote sustainability and protection of the natural environment should become an integral part of business strategies.

A leading management tool for improving organizations' environmental performance is the standard ISO 14001 (International Organization for Standardization 2004; Testa et al. 2014). As stated by Poksinska, Dahlgard, and Eklund (2003), without commitment from top management the environmental management system will not gain any substantial credibility in the eyes of the employees and, consequently, the success of its implementation is questionable. Zeng et al. (2005) pointed out that the environmental consciousness of top managers is the most decisive factor affecting implementation of ISO 14001 and is generally indispensable in environmental protection. Haslinda and Fuong (2010) found that top management's commitment is the foremost challenge in implementing ISO 14001. Top managers who commit their full support to enduring the organizational changes associated with the implementation can be a factor leading to a continual improvement in environmental performance.

For some top managers, the implementation of ISO 14001 represents a new challenge, but for many it remains only a draft and theory (Potočan and Mulej 2003). According to the data of International Organization for Standardization (International Organization for Standardization 2014) the percentage of annual growth of obtained ISO 14001 certifications in the world is growing, but extremely slowly. There is a similar pattern in development in Slovenia. According to the data of the Chamber of Commerce and Industry of Slovenia (see <http://katalogi.gzs.si>), among large organizations (with over 250 employees), since 2004 until the end of 2014, the percentage of obtained ISO 14001 certifications increased by only 40%.

These patterns of weak implementation of ISO 14001 in large Slovenian organizations and the literature (which has mainly emphasized the general role of top management in implementing ISO 14001) have motivated our research to investigate the influence of specific leadership fac-

tors, such as vision, credibility, collaboration, feedback and recognition, accountability, communication and action orientation, on the implementation of ISO 14001 as a measure of the environmental component of sustainable development in large Slovenian organizations. In this respect the following research question was set out: ‘Which are the dominant leadership factors that positively influence the implementation of the environmental component of sustainable development (the ISO 14001 standard) in the organization?’

This research contributes to the development of theory and analysis on the association between top managers’ perceptions and the environmental component of sustainable development in organizations. The research findings may raise the awareness among top managers of implementing the environmental component of sustainable development in the organization.

The rest of this paper is organised as follows. In the second section theoretical background is presented. The third section goes on to present the research methods. The fourth section presents the unique survey data for the sample of 96 Slovenian large organizations and discusses the empirical results. The fifth section presents managerial implications and implications for research. Finally, the sixth section concludes with the importance of the research findings.

### **Theoretical Background**

The following section presents the environmental component of sustainable development – ISO 14001 and seven leadership factors.

#### **ENVIRONMENTAL COMPONENT OF SUSTAINABLE DEVELOPMENT: STANDARD ISO 14001**

Protection of the natural environment is an essential part of the sustainable development process at different levels, from the global level to the local, and on to the micro-organizational level.

Organizations are faced with challenging market, in which consumers are increasingly aware of the importance of protecting the natural environment for its long-term survival (Fortuński 2008). This consumer awareness, in addition to laws and other regulations (Zhang et al. 2008), care for the organizations’ image (Psomas, Fotopoulos, and Kafetzopoulos 2011), maintenance and acquisition of competitive position in the global market (Sambasivan and Fei 2008), directs organizations towards environmentally friendly production and service processes.

Good environmental performance of the organization or good environmental protection management should include a comprehensive management of the environmental aspects of production or service activities, compliance with the legislative requirements, the balancing of costs, the exploitation of resources, and a response to the requirements and expectations of customers, owners and other interested parties (Slovenian Institute of Quality and Metrology 2013).

Dealing with the above-mentioned environmental tasks requires a systematic approach with deliberate and carefully planned activities, which is focused on the long-term responsible environmental behaviour. Internationally recognized frameworks for a systematic approach to the protection of the natural environment are the requirements of ISO 14001. This standard has become the dominant international standard (González-Benito, Lannelongue, and Queiruga 2011) and the most widely used environmental standard in the business world (Sebhatu and Enquist 2007).

A body of literature has evaluated the impacts of ISO 14001 on improvements in environmental performance; the findings are mixed. While most studies tend to highlight the positive nature of these impacts and the fact that ISO 14001 certification improves environmental performance (Pun and Hui 2001; Melnyk, Sroufe, and Calantone 2003; Potoski and Prakash 2005; Goh Eng, Suhaiza, and Nabsiah 2006; Arimura, Hibiki, and Katayama 2008), other studies question these benefits (Welch, Rana, and Mori 2003; King, Lenox, and Terlaak 2005; Christmann and Taylor 2006; Barla 2007; Blackman 2012).

After reviewing the scientific literature in different databases (e.g., ScienceDirect, Science Research Network, Emerald, ProQuest, and EBSCO), we have determined that while there is a body of literature on the adoption of standards in organizations, thus far no research has been published on the topic of the influence of selected leadership factors on the implementation of ISO 14001 in organizations. Our research aims to fill this gap in the literature.

#### LEADERSHIP FACTORS

Leadership is one of the most observed and least understood phenomena (Burns 1978). It has been conceptualized in the multitudes of ways. Tabassi and Bakar (2010) defined leadership as a process whereby a leader – a person in a formal position of authority – with his intelligence and willpower has a bearing on a group of subordinates to be able them to de-

velop their potentials so as to attain the organizational objectives within granted time, funding, and quality.

Krause (2005) identified the following important leadership factors: vision, credibility, collaboration, feedback and recognition, accountability, communication and action orientation. They represent leaders' characteristics, behaviours, and functions. The focus in the research is on their role in the implementation of ISO 14001.

Vision is one of the characteristics that shape a leader. A good leader knows that communicating an inspiring, clear and understandable vision is essential to mobilise followers, i.e., employees (Stam, van Knippenberg, and Wisse 2010). Importantly, vision communication can reinforce the common goals of the team (Joshi, Lazarova, and Liao 2009) or may also improve employees' motivation and organizational performance (Stam, van Knippenberg, and Wisse 2010).

Good leaders recognise credibility as the 'currency' of leadership (Leavy 2003). Men (2012) argued that leaders' credibility includes leaders' expertise and trustworthiness. The author pointed out that a credible leader who is deemed trustworthy and who demonstrates expertise helps nurture positive employee evaluation of the organization. In turn, this may encourage employee engagement in organizational improvements or changes.

Collaboration is a goal of a modern, contemporary management. Leaders should be aware that employees (their dedication, creativity, experiences, skills and knowledge) are a crucial factor for the operation and existence of the organization. This is one reason they should involve employees in the decision-making process, allowing them to participate in defining and achieving goals. As explained by Elele and Fields (2010), participation in decision-making leads to better employee-management relations, stronger employee attachment to organizations, better quality decisions, and improved productivity.

Feedback is a way of aiding personal development of a leader as well as the development of followers, i.e., employees. A good leader always seeks feedback to improve his performance (Stoker, Grutterink, and Kolk 2012); feedback also provides support and encourages employees to develop greater confidence in their abilities to pursue goals (Rego et al. 2012). More specifically, timely and objective feedback is more influential. Feedback is also recognition for a job well done or (public) recognition for the contributions of individuals in the organization.

A leader is accountable for the quality of business operations. Dive

(2008) listed key responsibilities that enable a leader to add value on a spine of accountability. These are: deciding who comes into the organization and who will do what jobs; securing employee commitment to specific goals and providing resources for them to achieve those goals; appraising staff, identifying development needs and deciding on performance rewards; ensuring that staff meet goals or changing the goals if appropriate; providing solutions to problems; making change happen; achieving results from colleagues and from external agencies (customers, suppliers, and shareholders); setting measures of success (timelines, quality, quantity, and services levels).

Communication (verbal and written) is the most fundamental of the leadership skills (Mumford, Campion, and Morgeson 2007). Without communication, there is no exchange or distribution of information, which is crucial for the successful functioning of an organization. Listening is also a vital part of persuasive communication. Leaders should know how to listen and take employees views into account, because this allows mutual understanding. One piece of advice from Drucker (2004) is how to become and remain a successful leader: 'First listen and then talk.'

Action orientation is also a valuable leadership factor. A good leader needs to be proactive rather than reactive in addressing business issues. This leader is persistent and innovative, gives timely responses, demonstrates a sense of personal urgency and energy to achieve results, and demonstrates a performance-driven focus by delivering results with speed and excellence (Krause 2005).

### **Research Methods**

A target population of 321 large Slovenian organizations was included in the in-depth survey research.

Data were collected using a written questionnaire. Its fourth part was developed on the basis of an accurate review of the professional and scientific literature in different databases such as Emerald, ProQuest, ScienceDirect, Science Research Network, and EBSCO. A pre-test of the questionnaire with 10 randomly selected top managers of large Slovenian organizations was also carried out. Five of them provided useful guidance for improving the clarity of the terminology used in the questionnaire.

The questionnaire contained closed-ended questions in the first, second and third parts, and statements using the Likert's 5-graded marking scale, in which '1' meant 'I do not agree at all' and '5' meant 'I agree

TABLE 1 Variables

Directly measurable variables	Indirectly measurable variables
Sector	Vision
Statistical region	Credibility
Age of organization	Collaboration
Gender	Feedback and recognition
Age of respondent	Accountability
Level of education	Communication
Years of working experiences	Action orientation
Role in the organization	
Environmental management system according to ISO 14001	

completely, in the fourth part. In the first part of the questionnaire, we gathered the data about organizations, such as in which sector they were active, which statistical region they belong to and how many years the organization has existed. In the second part, we collected data on the participants, such as their gender, age, level of education, years of experience and their role in the organization. The third part was used to gather the data about organizations' experience in the field of the environmental management system according to ISO 14001. In the last, fourth part, research on leadership self-assessment was conducted, with seven leadership factors included.

The questionnaire was sent by email to all top managers of the organizations included in the research. A total of 55 fulfilled questionnaires and three negative responses came back after the first distribution. After the second distribution, there were 41 more completed questionnaires. Altogether, 96 completed questionnaires were returned out of 321 sent. A response like this was expected (29.91%). Thus, 96 fulfilled questionnaires were included in the empiric part of the research.

The research results were statistically processed and analysed with the use of SPSS software. Throughout the research, the following methods were used: descriptive analysis, reliability analysis using Cronbach's alpha test and analysis of variance.

Along with the descriptive analysis, also presented are some basic characteristics of sample items as well as of variables used (table 1).

Cronbach's alpha test was used to measure the reliability of each of the seven analysed leadership factors. An acceptable value of Cronbach's al-

pha for the reliability of these constructs is greater than 0.7, whilst lower value indicates unreliability (Field 2006).

The analysis of variance was used to examine the average equality of leadership factors according to the categories (do not implement, planned, in the middle of implementation and already in use) of variable environmental management systems according to ISO 14001. In this manner, we obtained the information about whether the differences among the average values of leadership factors are statistically significant. In other words, it was used to find out which are the dominant leadership factors that positively influence the implementation of the environmental component of sustainable development (the ISO 14001 standard) in the organization.

## Results and Discussion

### DESCRIPTIVE STATISTICS

The majority of the analysed organizations came from the manufacturing sector (41.7%). Quite a large number of organizations (37%) were from the Central Slovenian statistical region. Most of them (75%) had existed for more than 40 years.

According to gender, 27.1% of the participants were women and 72.9% were men. Most of them (40.6%) were more than 50 years old. Most of the participants had between 15–25 years (33.3%) or 25–35 years (37.5%) of working experiences. More than half of the participants (59.4%) had a university education. As to their position at the organization, 25% worked as general managers, followed by chairmen of the board and its members (16.7%).

In assessing the situation in the field of the environmental management system according to ISO 14001, we determined that the system was already in use in 54.2% of organizations; 8.3% of organizations were in the middle of system implementation; 11.5% of them had planned on implementing it; and 26% of the organizations had no intention of implementing the system.

To assess the reliability of leadership factors, we performed Cronbach's alpha test. As can be seen from table 2, Cronbach's alpha value for each of the leadership factors is close to or above the 0.7 criteria. Therefore, the reliability of leadership factors was confirmed.

The in-depth research of leadership self-assessment (table 3) showed that all participants had a relatively high self-assessment for each of the



TABLE 2 Cronbach's Alpha Test

Leadership factors	Cronbach's alpha value
Vision	0.779
Credibility	0.697
Collaboration	0.783
Feedback and recognition	0.762
Accountability	0.792
Communication	0.784
Action orientation	0.763

NOTES Number of observations is 96.

leadership factors. As can be seen, in the context of vision, the participants gave the highest mark to the statement that they are open to accepting new ideas, including environmentally friendly ones. This can be understood to be a reasonable basis for sustainable development with the main idea of protecting the natural environment. However, they put less emphasis on how to help the rest of the employees to start thinking about their personal standards in relation to ISO 14001. There are two possible explanations for this: first, a perceived lack of time and a lack of interest by top managers, and second, some other more important work within the organization taking priority.

Regarding credibility, the participants gave the highest mark to the statement that they advocate for equality and justice. This can contribute to higher levels of confidence towards top managers and a stronger sense of belonging among workers, which consequently leads to the organizations' successful performance. In contrast, they are not willing to accept solutions that are in accordance with the requirements of ISO 14001. Although the statement: 'I correctly perform prescribed standards, even environmental ones' received a rather high mark, it is more likely that top managers are becoming increasingly aware of the importance of environmental standards or regulations. It is particularly important that this awareness is transformed into real actions and does not remain a mere idea or theory.

Regarding collaboration, the participants emphasized synergy in the principle of creative collaboration, which could be defined as a good foundation for continuous improvements. The lowest mark was given to the statement about helping employees to be able to solve the challenges of ISO 14001 independently. The other sorts of collaboration might be

TABLE 3 Leadership Self-Assessment Results

Factor/Statement	(1)	(2)	
Vision	I have a high personal standard in relation to ISO 14001.	4.00	1.086
	I help employees to start thinking about their personal standards in relation to ISO 14001.	3.67	1.073
	I personally inform employees about organisations' vision.	4.18	0.871
	I realize that vision is a basic guideline for employees' operation in the organization.	4.17	0.660
	I am open to accepting new ideas, including environmentally friendly ones.	4.57	0.576
	I can define a compelling framework for future actions.	4.24	0.661
	Average	4.14	
Credibility	I admit my mistakes.	4.19	0.685
	My words are consistent with my actions.	4.41	0.515
	I am looking for suggestions and ideas for personally improvement.	4.45	0.630
	I correctly perform prescribed standards, even environmental ones.	4.25	0.711
	I treat everyone with dignity and respect.	4.52	0.598
	I advocate for all employees.	4.45	0.647
	I advocate for equality and justice.	4.61	0.489
	I accept solutions that are in accordance with the requirements of ISO 14001.	3.80	1.062
Average	4.41		
Collaboration	I promote synergy – the principle of creative collaboration.	4.40	0.624
	I encourage employees to be involved in improvement activities related to the requirements of ISO 14001.	3.74	1.107
	I promote the adoption and implementation of new solutions.	4.22	0.699
	I obtain the consensus of employees before implementing improvements.	4.05	0.773
	I have confidence in others.	3.86	0.720
	I help employees to be able to solve the challenges of ISO 14001 independently.	3.54	1.104
	I support the independent decisions of employees.	4.28	0.593
	Average	4.01	

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understood as a way of transferring activities to the colleagues whom they trust and delegate tasks to.

Regarding feedback and recognition, the participants gave the highest

TABLE 3 Continued from the previous page

Factor/Statement	(1)	(2)	
Feedback and recognition	I publicly recognize the contributions of other employees.	4.53	0.542
	I timely and properly give recognition to individuals and groups for their efforts at all levels of the organization.	4.03	0.656
	I motivate all employees in the organization.	3.89	0.613
	I encourage and do not criticize experiments.	4.03	0.606
	I give positive feedback on measures related to the requirements of ISO 14001.	3.53	1.105
	I collect and evaluate feedback from employees.	3.83	0.777
	I value (positive or negative) feedback about myself.	4.08	0.763
	Average	3.99	
Accountability	I unambiguously and transparently define roles within the organization.	4.02	0.680
	I define responsibility for tasks related to the requirements of ISO 14001.	3.52	1.205
	I demand responsibility of employees for accepted tasks.	4.43	0.628
	I define appropriate criteria for set goals.	4.09	0.712
	I periodically analyse results achieved on the basis of defined criteria.	4.08	0.691
	I recognize the need for changes and implement them.	4.24	0.628
	I encourage independence at work.	4.44	0.662
	Average	4.12	

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mark to the statement that they publicly recognize the contribution of other employees, i.e. that they are totally aware of employees' needs to receive regular feedback upon their work. They know that in this way employees can be more effective. Giving positive feedback on measures related to the requirements of ISO 14001 is ranked in the last place.

Regarding accountability, the participants emphasized that they encourage independence at work and that they demand responsibility for accepted tasks. In this way, employees have more responsibility and an opportunity for creativity at work. In last place, the participants ranked the statement about defining responsibility for tasks related to the requirements of ISO 14001. The main reason for this can be because the requirements of ISO 14001 are not their priority.

Concerning communication, the participants gave the highest mark

TABLE 3 *Continued from the previous page*

Factor/Statement		(1)	(2)
Communication	I establish and promote a network of personal connections inside the entire organization.	4.12	0.684
	I ask employees for their opinions.	4.32	0.703
	I tell what I think in a constructive way.	4.30	0.600
	I share my own experiences and motivation with employees.	4.29	0.695
	I deal directly with different situations soon when they appear.	3.99	0.718
	I establish an atmosphere that allows employees to talk about the challenges in a relaxed way.	4.06	0.765
	I listen carefully.	4.16	0.686
	Average	4.18	
Action orientation	I define reasonable priorities.	4.21	0.664
	I take advantage of every opportunity that leads to improvement.	4.05	0.731
	I encourage innovation and creativity.	4.37	0.669
	I strive to integrate the requirements of ISO 14001 into the organizations' policy.	3.77	1.128
	I systematically encourage employees to accept the requirements of ISO 14001.	3.60	1.110
	Average	4.00	

NOTES Column headings are as follows: (1) average value (1–5), (2) standard deviation. Number of observations is 96.

to the statement that they usually ask employees for their opinions. This indicates that top managers include employees in solving and improving organizational matters. In this way, they actually exercise the aim of communication, i.e., the exchange of opinions and feelings. Top managers ranked the statement: 'I deal directly with different situations as soon as they appear' the lowest. This indicates the absence of the process-based organizational structure, in which top managers are directly involved in all segments of the organization. The most striking finding was that the hierarchical organizational structure is still present in large Slovenian organizations.

Concerning action orientation, the participants ranked the statement about encouraging innovation and creativity in the first place. Thus, top managers encourage employees' creative thinking and innovation, which in fact keeps the organization current. Of the least importance for them is the systematic encouragement of employees to accept the requirements

of ISO 14001, which obviously is not so significant and reveals some other priorities.

As can be seen from the average value of each leadership factor, credibility is at the top of the scale, followed by communication, vision, accountability, collaboration, action orientation, feedback and recognition.

The results are interpreted with caution, because they can be biased to self-assessment of top managers. The results cannot necessarily reflect the real true situation in studied organizations. However, for the measurement of possible gap between the managers statements and real true situation we do not have well founded tool and argument. Generally, responses by top managers on the written questionnaire in this kind of getting information can turn out to be overstated. They can evaluate and present situation in the organization better than actually it is. We have been aware of this possible subjective element in answers as limitation for results from the very beginning of the research. Therefore, our interested focus has been merely on the subjective perception of the interviewed managers in the large Slovenian organizations on the studied topics.

#### THE INFLUENCE OF LEADERSHIP FACTORS ON THE IMPLEMENTATION OF ISO 14001 IN ORGANIZATION

Throughout the analysis of variance (table 4), we determined that the differences among the average values of variables (vision, credibility, collaboration, accountability and action orientation) are statistically significant ( $p \leq 0.05$ ) according to the categories of a variable environmental management system under ISO 14001. This means that organizations differ from each other in the way the actions related to vision, credibility, collaboration, accountability, and action orientation are carried out in comparison to what phase of ISO 14001 they are currently implementing.

The differences between the average values of the variables of feedback and recognition, and communication are statistically insignificant ( $p > 0.05$ ) according to the categories of variable of the environmental management system under ISO 14001. This means that organizations do not show significant differences among each other in their actions related to the way feedback and recognition, and communication are carried out in comparison to what phase of ISO 14001:2004 they are currently implementing.

On the base of these results, it was found that the dominant leadership factors that positively influence the implementation of the environmental component of sustainable development (the ISO 14001 standard) in

TABLE 4 Analysis of Variance

Leadership factors	(1)	(2)	(3)	(4)	(5)	(6)
Vision	3.75	3.91	4.13	4.38	9.006	0.000
Credibility	4.44	4.05	4.46	4.46	3.980	0.010
Collaboration	3.65	3.70	4.05	4.25	10.518	0.000
Feedback and recognition	3.91	3.79	4.13	4.05	1.370	0.257
Accountability	3.90	3.83	4.21	4.27	4.821	0.004
Communication	4.17	3.88	4.14	4.25	2.026	0.116
Action orientation	3.57	3.69	4.13	4.26	8.968	0.000

NOTES Environmental management system – ISO 14001: (1) do not implement, (2) planned, (3) in the middle of implementation, (4) already in use, (5) analysis of variance, (6) F/Welch statistic, (7) *p*-value.

the organization are vision, credibility, collaboration, accountability, and action orientation.

### Managerial Implications and Implications for Research

This research has developed an empirical approach for the evaluation of top managers' perceptions in their organizations in order to implement the environmental component of sustainable development in the organizations. The derived managerial implications are raising awareness among the top managers in the organizations towards social responsibility for improvements in implementation of the environmental component of sustainable development in the organizations. More specifically, managerial implications are related to those leadership factors that were found to be significantly associated with the implementation of ISO 14001. In order to improve the situation, top managers should be presented with the meaning of ISO 14001 implementation in a way that employees will perceive it with enthusiasm; that will provide employees, especially environmental managers, appropriate training and education about the standard; that will strive for continuous improvements, and stimulate employee involvement in improvement activities, related to the requirements of ISO 14001; that will rely on employees and delegate a part of accountability to them; and that will provide incentives for proactive behaviour to consider ISO 14001 implementations in organizations' policies before the actual implementation.

On the basis of research limitations, there are some implications for future research. First limitation of the research is the focus on a single envi-

ronmental component of sustainable development. Future research with focus on the other two components of sustainable development (economic and social) can allow extending the results and obtaining the whole picture of how the presented leadership factors could influence the implementation of the concept of sustainable development in organizations. Second limitation of the research is the focus on seven leadership factors. The inclusion of other leadership factors, such as charisma, mindfulness, integrity, delegation, and enthusiasm, can be an interesting issue for future research. Third, an additional research limitation is the size of the organizations. Only large organizations were included in the research. Future research could also be conducted among small and medium-sized enterprises. They represent a driving force of the economy and, as such, should operate in a sustainable way, so as to also be environmentally-oriented. It would be interesting to identify the dominant leadership factors to be considered by top managers of small and medium-sized enterprises in achieving sustainable development.

Finally, the research was aimed at the top managers of organizations and, due to such a survey sample selection, the empirical results are based on the manager's perspective. The inclusion of other respondents, such as employees, might bring another perspective on the influence of leadership factors on the implementation of ISO 14001 in organizations. Therefore, it would be interesting to research how employees with regard to leadership factors see their top managers in the implementation of the environmental component of sustainable development.

### **Conclusions**

Top managers have a key role in introducing sustainable development into their organization and, thus, also in introducing its environmental component. Top managers should provide incentives in this direction and encourage employees in this way. They should be the employees' mentors or 'gurus' showing the way forward to common goals. Thus, leadership is said to be the main force within new changes. Our research contributes insight into how leadership factors influence the implementation of the environmental component of sustainable development in terms of ISO 14001 in large Slovenian organizations.

The research has shown that the dominant leadership factors that positively influence the implementation of the environmental component of sustainable development (the ISO 14001 standard) in the organization are vision, credibility, collaboration, accountability, and action orienta-

tion. The fact is that top managers should convey the vision in a compelling way throughout the organization. Their vision will be taken seriously if they will be credible. Only when top managers have a decent record of consistency, are known for keeping their word, and stick with the truth even when it is not popular will the things they say have real meaning and be influential. If they have vision and if they are credible, they also need to have a strong action orientation. Therefore, when they see the facts clearly, it is essential to take decisive action. Since no organization can exist without its employees, top managers should actively collaborate with them, including them in the process of making new decisions and defining goals. Top managers are accountable for the quality of business. Delegating a part of this accountability to other employees is extremely important. Thus, this can make employees stronger and develop feelings of independence and their participatory role in the organization.

The emphasis on those significant leadership factors may help top managers in implementing the environmental component of sustainable development in the organization. Finally, the research contributes to the rising awareness of top managers in organizations on the importance of the environmental component of sustainable development.

Among issues for further research is how the managers and organizations can improve social responsibility regarding the environmental component of sustainable development with the reduction of direct and indirect social costs and what can be the role of economic, social and environmental policies in this process, which is of broader interests for the society.

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