


# The Impact of the Integrated Management System (IMS) and its Dimensions on Productivity in Iran's Sports and Recreational Complexes and Presenting a Model

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## Abstract

**Purpose:** The present research was conducted with the general aim of examining the impact of an integrated management system on productivity in Iran's sports and recreational complexes, and proposing a model.

**Methods:** The current research follows a quantitative approach. The present research follows a quantitative approach. The research instrument includes three questionnaires: a demographic information questionnaire, the productivity questionnaire by Asadi (2001) which measures two components of efficiency and effectiveness, and the integrated management system questionnaire by Ghasemi et al. (2013) which measures three components of quality management, environmental management, and occupational health and safety management. The face and content validity of the questionnaires were confirmed by the relevant experts. The reliability of the questionnaires was also confirmed by calculating Cronbach's alpha. SPSS version 26 and AMOS version 24 software were used to analyze the collected data.

**Results:** The quality management system has a significant positive effect ( $t=5.208$ ,  $p=0.001$ ) on productivity; the environmental management system has a significant positive effect ( $t=8.546$ ,  $p=0.001$ ) on productivity; and the occupational health and safety management system has a significant positive effect ( $t=4.060$ ,  $p=0.001$ ) on the productivity of sports complexes in Mazandaran province. The integrated management system can directly influence the productivity of sports complexes.

**Conclusion:** Therefore, it is recommended that the managers of these sports complexes do not overlook the importance of the integrated management system and by implementing it in their facilities, they can enhance the efficiency and effectiveness of these sports venues.

**Keywords:** Quality management system, environmental management, safety management, integrated management.

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## Introduction

organizational survival hinges on productivity. Managers consider productivity their ultimate goal and most valuable objective. The challenge of boosting productivity looms large for management as we enter the 21st century. Organizations that fail to adapt to the demands of this competitive landscape risk falling behind or even perishing (Taheri, 2017). To achieve this, organizations strive to harness the full capabilities and potential of their employees, creating suitable opportunities, facilities, and work environments (Moorhead and Griffin, 2019). In essence, every organization must enhance productivity to ensure its survival. Productivity involves maximizing profit by efficiently utilizing resources such as workforce, power, talent, human resources, land, machinery, money, and time. It aims to improve societal welfare. Productivity operates at individual, organizational, and national levels, offering benefits like cost savings, employee career advancement, an appealing work environment, general employee training, job security, higher salaries, welfare, and motivation (Khaki, 2009). Another definition characterizes productivity as the relationship between produced output (services provided) and the factors involved in production."

the survival of organizations depends on their productivity. Productivity is the highest goal and the most valuable destination for managers. Efforts to increase productivity is the most serious challenge that management faces at the beginning of the 21st century. Any organization that cannot withstand in this world of competition or race and adapt itself to the needs of its time will fall behind or eventually perish (Taheri, 2017). For this purpose, every organization seeks to utilize all the capabilities and capacities of its employees and actualize their latent potential. To this end, it must create the appropriate opportunities, facilities, and work environment for its employees (Moorhead

and Griffin, 2019). In fact, this means that every organization needs to enhance its productivity in order to survive. Productivity is the process of obtaining the maximum possible profit by optimally utilizing the workforce, power, talent and skills of human resources, land, machinery, money, time, location, etc. to improve the welfare of the society. Productivity is divided into individual, organizational, and national levels and has resources and benefits such as cost savings, career advancement of employees, creating an attractive work environment, general training of employees, job security, increased salaries, welfare, and work motivation (Khaki, 2009). In another definition, productivity is a concept that expresses the relationship between the produced output (services provided) and the factors used in the production of that output (services).

According to the definition of the Japan Productivity Organization, productivity is the scientific maximization of the use of physical resources, human resources, and other factors, which leads to reduced costs, market expansion, increased employment, and a higher standard of living for all members of society (Taheri, 2017). As observed in all the definitions provided for productivity, the subject is the maximization of the use of various organizational resources (financial, human, technological, etc.). On the other hand, the ever-evolving development of systems and global standards for better coordination, guidance, order, and organization of the activities of various organizations to increase productivity, effectiveness, and efficiency, on the one hand, and on the other hand, the reduction of waste and physical and mental harm to humans, as well as the preservation and rehabilitation of the environment as a mission, play a valuable role in the future visions of organizations and the determination of their goals (Amirkhani, 2009). Barani, Taleb pour and Keshtidar (2023) found by considering the impact of total quality management and its dimensions on productivity, heads, managers

and employees of sports organizations and especially the target population of this study, which are sports boards, should pay special attention to the use of quality management. Have comprehensive at different levels of your organization and help improve and increase productivity in your organization by implementing this type of management. Also, based on the findings of the study by Baroj Kiakla et al. (2020), the organizational commitment training program is able to significantly affect the organizational productivity of project managers and executives, and the extent of this effect remains stable in the follow-up phase; Therefore, it is suggested to senior managers of organizations to use organizational commitment training programs to improve organizational productivity.

Therefore, the establishment of an integrated management system with different approaches such as quality, environmental, and safety will be a suitable solution. Integrated Management Systems (IMS) can affect the activities, products, and services of construction companies from different aspects and perspectives, but their implementation and execution have always faced serious challenges due to the dominance of the traditional view in project implementation (Olaru et al. 2014). The Integrated Management System has been proposed with the aim of integrating three management standards, namely quality management, environmental management, and occupational health and safety management, in order to achieve a comprehensive management system. The Integrated Management System plays an important role in the efficiency of quality, environmental, and occupational health and safety performance, and with a logical and systematic management approach, it leads to desirable strategic and operational decision-making (Stamou, 2003). The main goal of the Integrated Management of Quality, Environment, Health, and Safety Systems is to optimize business, respond to customer

demands and stakeholder expectations, and achieve profitability (Moradi, 2016).

Based on the presented information, it appears that the implementation of an integrated management system (IMS) in organizations is an important and relevant topic for investigation. The IMS is related to various concepts, including cloud computing; In this context, Shabanian et al. (2022) in a research entitled factors influencing the use of cloud computing in education concluded that these variables include: the need to change the way of education, the usefulness of cloud tools, the requirements of the 21st century, the need for technologies New, human resources, organizational support, preparation of the learning environment, an innovative approach to public education, educational policy, provision of education, promotion of education, educational justice and management of financial resources. Based on the findings of this research, it can be stated that the determined factors are effective in using cloud computing technology and as a result, it can provide solutions for the problems in the education system. Cloud computing enables users to easily control and access their educational data through the Internet. Therefore, it is necessary to provide innovative educational systems focused on strengthening learners' skills and developing their learning to be able to respond to ongoing challenges.

There have been several studies conducted in this area. Moradi (2016), found that the use of an integrated management system had a significant impact on improving the performance of the quality systems in the oil transfer centers of the Isfahan Region Oil Pipeline and Telecommunication Company (Moradi, 2016). Afzali (2018), revealed that the dimensions of the integrated management system (implementation and operation, policy, improvement, management review, and performance evaluation) had a positive and significant effect on organizational productivity

(Afzali, 2018). Ghazi et al. (2014), also showed that the integrated management system and its subsystems, including quality management system, environmental management system, and occupational health and safety management system, had a positive and significant impact on organizational maturity (Ghazi et al. 2014). Wibisono et al. (2023) concluded in a study titled “development of integrated laboratory management information system” that this developed system will later be able to provide informed input and information output facilities which are managed by the faculty and laboratory managers at the unit level of study programs and faculties, to be subsequently reported as information to institutions and stakeholders (both students and lecturers as users, or the general public who requires cooperation in special laboratory tests in universities according to their needs). Algheriani et al. (2019), stated that ISO 9001:2015 for quality management, ISO 14001:2015 for environmental management, ISO.IEC 27001:2013 for information security management, ISO 45001:2018 for occupational health and safety management, and ISO 22000:2005 for food safety management can be used by organizations to manage processes and related risks against the needs of each internal and external stakeholder through a single MS instead of multiple standalone MS that are managed separately (Algheriani et al. 2019).

Today, the sports industry is one of the most profitable and thriving industries among various sectors. The sports industry is one of the top ten largest businesses and its primary source of revenue is from sports fans (Bouzdine et al. 2015). The sports industry is one of the prosperous economic domains; however, in our country, due to the lack of coherent programs and comprehensive perspectives, weak communication, and the absence of appropriate processes, limitations have arisen in the growth and development of the sports industry. In the sports industry, sports and recreational complexes and sports clubs are among the most

important sports businesses. Fulfilling the needs and meeting the expectations of users of sports complexes is considered one of the most crucial responsibilities of managers and officials in this sector. Since sports complexes provide services, it must be acknowledged that service marketing is different from product marketing and is typically more complex to manage. Four characteristics: 1) intangibility, 2) inseparability, 3) perishability, and 4) heterogeneity distinguish services from goods (Yaghoubi, 2011). Therefore, sports and recreational complexes, as one of the centers providing sports services, must be in search of new ways to attract more customers, achieve their satisfaction, and ultimately increase their productivity (Naderian Jahromi et al. 2007). As Jaspán and Green (2023) who had a human-centered approach to the concept of productivity in organizations, reinforced that software engineers and developers are human and productivity tools should support making their jobs easier as opposed to turning them into productivity machines. Also Ardila and Dewanto (2022) examined the effect of leader-member exchange and organizational culture on productivity and concluded that the leader-member exchange partially has a positive effect on productivity by 31.6%, while the organizational culture variable partially has a positive effect on productivity by 49.8, and the two variables simultaneously affect productivity by 62.9%, while another 37.1% is influenced by other variables outside of this study. Given the mentioned points, regarding the subject of the integrated management system in organizations, it seems that examining this variable and its dimensions in sports and recreational complexes and its effect on the productivity of these centers can be investigated. Therefore, the researcher in the present study seeks to answer the question whether there is a relationship between the integrated management system and branding with productivity in sports and recreational complexes? And does branding play a



mediating role in the relationship between the integrated management system and the productivity of sports and recreational complexes?

## Materials and Methods

This research is based on a paradigm of post-positivist type of research. The researcher evaluated and investigated the research problem with the philosophical pre-assumption of post-positivism, and chose a quantitative approach to solve the problem. In terms of strategy, it is descriptive-survey, and in terms of the form of hypotheses, it is causal, as causal research uses the independent variable to predict the behavior of the dependent variable. Additionally, in the approach of this research, the effect of variables on another variable is measured and presented in the form of a model. This approach of the researcher is based on the literature and theoretical background, and the variables and their relationships, as well as the way of measuring the variables, are extracted through standardized tools. The data collection method was a combination of library studies in the first stage and standard questionnaires in the second stage. The data format in this research is numerical. Furthermore, the direction, intensity, and fitness of the effect were calculated. Then, the researcher proceeded to confirm the convergent and discriminant validity of the presented conceptual model through confirmatory factor analysis, i.e., the correlation of the questions or measurement indicators of a variable with each other (convergent validity) and the questions of one set (component) with another set (another component) in terms of being separate were tested (discriminant validity), which overall, the construct validity of the model was confirmed.

The purpose of this study was to collect data from standard questionnaires presented in reputable domestic and foreign research. Subsequently, the impact of integrated management systems and their dimensions on the productivity of sports complexes was

analyzed. After linear measurement modeling and confirming convergent and discriminant validity, the final model was validated through construct validity and model fit. To achieve this, the research hypotheses were first extracted from the obtained model, and then the necessary data and information were collected from the research statistical sample. Finally, based on this information, the independent and dependent variables were calculated, and the correlations between them were measured, thus testing the formulated hypotheses.

The survey research method was the research strategy at this stage. The statistical population of the research included all employees and managers of prominent sports complexes in Mazandaran province. The sample size was determined based on the method of determining sample size in structural equations by Hooman et al. (2013), which was calculated using the formula  $5q < n < 15q$  (18). After pre-processing and excluding indifferent individuals, 228 people were ultimately identified as the research sample, and the research questionnaires will be distributed among them.

present research is qualitative (grounded theory), exploratory in purpose, and applied in outcome. The research population included individuals with scientific and practical expertise in the field of sports. In this research, the samples were selected purposefully and through snowball sampling; the samples included football coaches, technical managers, referees, football experts, players, spectators, executive managers, league organization staff, students, football instructors, university professors, and veterans. Semi-structured interviews were used to conduct the research. The interviews continued until data saturation was reached. The validity and reliability of the data were determined using the method of review by experts. The findings were formed into a final model based on data coding and analysis. In this method, the researcher uses interpretive methods and procedures to gain an

understanding of the phenomena from the perspective of the participating individuals. In this research, the grounded theory strategy or method was used. The research population included experts in the field of sports management, athletes, coaches, association officials, club managers, and fans, and theoretical sampling was used to interview 20 people until theoretical saturation was reached. Based on the Strauss and Corbin (1998) theory, the central phenomenon, codes, and extracted articles were placed in causal conditions, contextual, intervening, strategic, and consequential factors, and the relationships between the factors were established using selective coding.

After necessary coordination with the sports and youth departments of the cities in Mazandaran province and also informing the managers of sports complexes, the questionnaires were made available to the research sample for completion. The questionnaire included demographic information such as age, gender, education level, and position.post, and the integrated management system questionnaire by Ghasemi, Zare, and Samenian (1392) which included 4 items and 3 components (quality management,

environmental management, occupational health and safety management) with a 5-point Likert scale from strongly agree (5) to strongly disagree (1) was used (19). Also, in this study, to measure the productivity of the clubs, the Asadi (1380) questionnaire was used, which included 22 questions and two components of efficiency and effectiveness based on a 5-point Likert scale from very low to very high (20). Furthermore, the face and content validity of the questionnaires in this research was assessed by 15 expert professors of sports management. After receiving the opinions of the professors and experts, their views and suggestions were taken into account in the preliminary questionnaire. To confirm the reliability of the research questionnaires, due to the existing limitations, 30 questionnaires were randomly selected, and the reliability of the questionnaires was obtained using Cronbach's alpha coefficient, as shown in Table 1. Considering the values of these coefficients, it can be said that the questionnaires have acceptable reliability. In this research, to calculate the internal consistency reliability of the questionnaire items, Cronbach's alpha method was used, and the internal reliability coefficient for the questionnaires and their dimensions are presented in Table 1.

**Table 1. Specifications of integrated management system and productivity questionnaire and calculation of Cronbach's alpha**

Variable	Dimensions	Number of questions	Cronbach's alpha reliability
integrated management system	Quality management	14	0.773
	Environmental management	16	0.764
	Occupational health and safety management	5	0.807
Efficiency	Performance	11	0.743
	Effectiveness	11	0.833

The internal reliability coefficient (Cronbach's alpha) in this research, as observed, was above 0.7, indicating acceptable reliability of the questionnaires used and their dimensions.

Additionally, to examine the reliability of the research instrument, composite reliability (CR) methods and factor loading coefficients were used, and to investigate the convergent and

discriminant validity of the research instrument, the average variance extracted (AVE) coefficients and the Fornell-Larcker matrix were used based on confirmatory factor analysis. For the analysis of the research data, structural equations will be specifically used. For this purpose, the Amos software version was used. In this way, the researcher entered the collected data into the SPSS software and then first classified the demographic variables, indicators, and variables of the conceptual model in the form of descriptive statistics and drew appropriate charts for them. Then, the data collected from the standard tool and information collection are preprocessed, and after screening the data, the research hypotheses are tested and evaluated in the form of two measurement and structural models. First, the validity and reliability, as well as the fit of the measurement model, are examined, and finally, the hypothesis testing is performed within the structural model. Through this method, the acceptability of theoretical models can be tested in specific populations using correlation, non-experimental, and experimental data (18). Data analysis will show to what extent the proposed explanatory model in this study will be quantitatively confirmed by the collected samples.

## Results

According to the descriptive findings of the research, the minimum age of the research sample was 28 years and the maximum was 59 years. The mean age of the research samples was 42.85 years with a standard deviation of 5.187 years. Out of 228 managers and employees of sports complexes, 136 (59.6%)

were between 36 to 45 years old, which was the highest frequency among the research samples. Also, the lowest frequency was related to the samples aged 56 to 60 years (1 person, 0.4%). 149 people (65.4%) were male and 79 people (34.6%) were female. 127 people (55.7%) of the research sample were single and 101 people (44.3%) were married. According to the research results, 77 people (33.8%) of the research samples had a bachelor's degree, which was the highest frequency among the samples. Also, 59 people (25.9%) had a master's degree, 55 people (24.1%) had an associate degree, 23 people (10.1%) had a diploma, and 14 people (6.1%) had a doctorate degree. According to the findings, 164 people (71.9%) of the research samples were employees of sports complexes and 64 people (28.1%) were also managers of these sports complexes.

According to the descriptive findings regarding the main variables of the research, it was observed that in the present study, the mean of the quality management system was  $3.809 \pm 0.329$ , the mean of the environmental management system was  $3.788 \pm 0.407$ , and the mean of the occupational health and safety management system was  $3.996 \pm 0.426$ . As observed, the highest mean is related to the occupational health and safety management system dimension. The mean productivity of sports complexes from the perspective of employees and managers as the research samples was 3.588 with a standard deviation of 0.303. According to the results, the mean of the efficiency dimension was  $3.473 \pm 0.355$ , and the mean of the effectiveness dimension was  $3.703 \pm 0.359$  (Table 2).

**Table 2. Descriptive statistics of integrated management system variables and productivity and its dimensions**

Variable	Components	Number	Min	Max	Average	Standard deviation
integrated management system	Quality management	228	2.64	4.64	3.809	0.329
	Environmental management	228	2.75	4.56	3.788	0.407
	Occupational health and safety management	228	2.60	4.80	3.996	0.426

Efficiency	Performance	228	2.73	4.36	3.473	0.355
	Effectiveness	228	2.91	4.36	4.703	0.359

In Table 3, the descriptive indices of skewness and kurtosis, mean, and median of the research variables are reported. As mentioned, the values of skewness (between 1 and -1) and kurtosis (between 3 and -3) in the research variables can be used to examine the type of data distribution (normality or non-normality of the data); therefore, it can be said that the data distribution is normal. In addition to the results related to the values of skewness and kurtosis, it can also be said that in studies where the number of samples is more than 40, there is no need for normality tests such as Shapiro-Wilk or Kolmogorov-Smirnov. If the number is less than 40, you are authorized to use these tests. Due to the fact that the sample size in this research is high, according to the central limit theorem, the data are in a normal state (Sheldon, 2005). In this research, the number of research samples is 228, so based on the central limit theorem, the data distribution can be considered normal.

Based on the implementation of the measurement model in the Amos software and the implementation of the factor analysis process of the variables and components attached to the questionnaire items, all factor loadings and t-values related to the items in the components (quality management system, environmental management system, occupational health and safety management system) and productivity (efficiency and effectiveness) have acceptable values (t-value greater than the absolute value of 1.96 and factor loading greater than 0.3). Therefore, it can be said that the observed variables (items) are able to predict their respective factors. Additionally, based on the evaluation of the fit indices, the values of the Goodness of Fit Index (GFI) and the Comparative Fit Index (CFI) for all components are greater than 0.9, which indicates a suitable fit of the confirmatory factor analysis model of the integrated management system and productivity of sports complexes questionnaire.

**Table 3. Examining the type of data distribution (normality and non-normality of data)**

Variables	Average	Mid	Crooked	standard skewness	error	Elongation	standard elongation	error
Quality management	3.809	3.768	-0.450	0.161		0.407	0.321	
Environmental management	3.788	3.875	-0.270	0.161		-0.550	0.321	
Occupational health and safety management	3.996	4.000	-0.756	0.161		0.112	0.321	
Performance	3.473	3.545	-0.347	0.161		-0.618	0.321	
Effectiveness	3.703	3.727	-0.157	0.161		-0.373	0.321	
Efficiency	3.588	3.591	-0.466	0.161		-0.523	0.321	

To test the research hypotheses regarding the relationship between the integrated

management system and the productivity of sports complexes, Pearson correlation



coefficient was used first. The results of the Pearson correlation test in Table 4 show that there is a positive and significant relationship between productivity (dependent variable) and quality management system (Sig=0.001,  $r=0.630$ ), environmental management system (Sig=0.001,  $r=0.686$ ), and occupational health and safety management system (Sig=0.001,  $r=0.294$ ) in the sports complexes of Mazandaran province. Also, there is a positive and significant relationship between the quality management system, environmental

management system, and occupational health and safety management system with the efficiency and effectiveness (dimensions of productivity) of the sports complexes, based on the correlation coefficients, the highest correlation was observed between the environmental management system and efficiency (Sig=0.001,  $r=0.752$ ) and the lowest correlation was between the occupational health and safety management system and the effectiveness (Sig=0.001,  $r=0.213$ ) of the sports complexes.

**Table 4. Pearson correlation matrix (integrated management system relationship and productivity)**

		Performance	Effectiveness	Efficiency
Quality management	Correlation coefficient	**0.596	**0.473	**0.630
	Significance level	0.001	0.001	.001
Environmental management	Correlation coefficient	**0.752	**0.412	**0.686
	Significance level	.002	.001	.018
Occupational health and safety management	Correlation coefficient	**0.317	**0.213	**0.294
	Significance level	.001	.001	.001

Based on the results obtained from the model of the impact of the dimensions of the Integrated Management System (quality management, environmental management, occupational health and safety management) on productivity the findings of Table 5, it can be said that the quality management system (Sig=0.001,  $t=6.870$ ) with an impact coefficient ( $\beta=0.567$ ), the environmental management system (Sig=0.001,  $t=11.401$ ) with an impact coefficient ( $\beta=0.734$ ) and the occupational health and safety management system (Sig=0.001,  $t=5.856$ ) with an impact coefficient ( $\beta=0.463$ ) have a positive and significant effect on the productivity of sports complexes in Mazandaran province. Based on the values of the goodness-of-fit indices (GFI=0.972) and the comparative fit index (CFI=0.974) as the main

fit indices, which are higher than 0.9, indicating a good fit of the model. Also, the adjusted goodness-of-fit index (AGFI=0.855), the normed fit index (NFI=0.971) and the incremental fit index (IFI=0.974) obtained are at acceptable levels. Finally, based on the values of the root mean square residual (RMR=0.004) and the root mean square error of approximation (RMSEA=0.088), it can be said that the model has a sufficient fit. After examining the impact of the dimensions of the Integrated Management System (quality management, environmental management, occupational health and safety management) on the productivity of sports complexes, the impact of the Integrated Management System (IMS) on the productivity of sports complexes was used using the structural equation model.

**Table 5. The effect of the system dimensions of the integrated management system on productivity**

	routes	Dependent variable	factor load	t value	Significance level
<b>Quality management</b>	--->	Efficiency	0.567	6.870	0.001
<b>Environmental management</b>	--->	Efficiency	0.653	11.401	0.001
<b>Occupational health and safety management</b>	--->	Efficiency	0.463	5.856	0.001

Based on the findings of Table 6, it is observed that the Integrated Management System has a positive and significant effect (Sig=0.001,

t=13.405) with a path coefficient ( $\beta=0.873$ ) on the productivity of sports and recreational complexes in Iran.

**Table 6. The effect of integrated management system on productivity**

	routes	Dependent variable	factor load	t value	Significance level
integrated management system	--->	Efficiency	0.873	13.405	0.001

## Conclusion

Any organization that cannot endure in this world of competition or race and adapt itself to the needs of its time, will fall behind or eventually perish. For this reason, every organization strives to utilize all the capabilities and capacities of its employees and bring their latent talents into actuality. Therefore, it must create opportunities, resources, and a suitable work environment for its employees. Furthermore, the ever-evolving development of systems and global standards for the purpose of better coordination, guidance, order, and organization of the activities of various organizations to increase productivity, effectiveness, and efficiency, on the one hand, and on the other hand, the reduction of human physical and mental waste and damages, as well as the preservation and rehabilitation of the environment as a mission, play a valuable role in the future perspectives of organizations and the determination of their objectives. Therefore, the establishment of an Integrated Management System with different approaches

such as quality, environmental, and safety, as required by the organization, will be an optimal solution.

Based on the results of the Pearson correlation test related to the research assumptions, it was determined that there is a positive and significant relationship between the quality management system and productivity and its dimensions (efficiency and effectiveness) in the sports complexes of Mazandaran province. The findings from the structural equation analysis related to the first hypothesis of the study also showed that the quality management system has a positive and significant effect on the productivity of the sports complexes in Mazandaran province. Part of the result obtained is consistent with the findings of (Afzali, 2018) and (Moradi, (2016). In interpreting the obtained result, it should be mentioned that the quality management system creates a framework in the organization so that management can, through planning the management system based on effective processes that create value-added in the

organization, lead to the improvement in identifying and meeting the needs and expectations of customers and other stakeholders in an efficient and effective manner to achieve competitive advantage, measuring the performance of all processes and units, guiding towards achieving organizational goals, customer satisfaction, improving product quality, system effectiveness and efficiency, controlling non-conforming products, and achieving, maintaining and improving the overall performance and capabilities of the organization. In fact, the implementation of quality management principles not only provides direct benefits, but also plays an important role in managing costs and risks. Accordingly, it is clear that the quality management system can have a positive and significant impact on the productivity of the sports complexes in Mazandaran province.

According to the results of the Pearson correlation test related to the research assumptions, it was determined that there is a significant positive relationship between the environmental management system with productivity and its dimensions (efficiency and effectiveness) in the sports complexes of Mazandaran province. The findings of the structural equation analysis related to the second hypothesis of the research also showed that the environmental management system has a significant positive effect on the productivity and branding of the sports complexes in Mazandaran province. In explaining the obtained result, it should be noted that in modern management, the most important axis of sustainable development is human resources. Therefore, without considering human resources, no process will move towards the desired result, and the result of such a system will be disintegration and disintegration. Therefore, the approach of modern management has moved towards the preservation and protection of the workforce, and this is one of the fundamental principles in the policy of managing an organization.

On the other hand, since the late 1969, the environment has also been added to the valuable assets of human beings, and in this year, with the enactment of the Clean Air Act in the United States, it was emphasized that greater production not only will not have any added value, but can also call into question the very existence of human beings. This idea has been implemented in various forms in most countries in recent decades, including the ISO 14000 series standards, environmental impact assessment, and so on. Therefore, it is obvious that any kind of occupational accidents and diseases, as well as environmental damage, can directly and indirectly impose very large and sometimes irreparable losses on organizations, one of which can be a decrease in productivity. It should also be noted that today, people's sensitivity to environmental issues has increased greatly, and many of them pay attention to the extent to which an organization supports the environment when buying goods or receiving services, and even many companies are engaged in branding using phrases such as "environmentally friendly" in an effort to enhance their brand. Therefore, to properly address the unwanted effects of an organization's lack of attention to the environment, including a decrease in organizational productivity and a decrease in brand value in the public mind, the use of management systems, especially the environmental management system, has been introduced as a suitable solution. Accordingly, it is suggested to the managers of these organizations to engage in more environmental activities such as planting trees in the existing spaces of the organizations, using appropriate raw materials to reduce environmental pollution, and consequently obtaining the necessary environmental certificates, in addition to improving the efficiency and effectiveness of these units, to also provide a suitable platform for branding and enhancing their brand value.

Based on the results of the Pearson correlation

test related to the research assumptions, it was determined that the occupational health and safety management system has a significant positive relationship with productivity and its dimensions (efficiency and effectiveness) in sports complexes in Mazandaran province. The findings from the structural equation analysis related to the third hypothesis of the research also showed that the occupational health and safety management system has a significant positive impact on the productivity of sports complexes in Mazandaran province. Part of the result obtained was consistent with the research findings of (Afzali, 2018) and (Moradi, 2016). In interpreting the obtained result, it should be explained that the goal of the occupational health and safety management system is to pay attention to the occupational safety and health of the organization's employees, and it includes the conditions and factors that affect or may affect the safety and occupational health of employees, contractors, visitors, and any other person in the workplace. The occupational health and safety management system allows the organization to achieve goals such as eliminating or minimizing the risks that expose employees and other stakeholders to the hazards arising from the organization's activities, preventing the occurrence of incidents and continuously improving them, and implementing, maintaining and continuously improving the safety management system. This system is currently widely used in most domestic organizations, especially in the oil and gas industries, and given the risks that may threaten users and employees of sports complexes, it is necessary to be widely considered and used in these complexes as well.

According to the given description, it is necessary for the managers of important sports complexes to consider the most important elements of the occupational health and safety management system, including leadership and commitment, policy and strategic objectives, resources and documentation, risk assessment

and management, planning, implementation and monitoring, and auditing and review, as a single integrated whole, in order to have appropriate performance in this area and to provide more suitable conditions for users and customers of these complexes by eliminating or reducing factors that threaten the health of users and employees. This issue leads to an increase in the quality of services and consequently, an improvement in customer satisfaction, which in turn can be the basis for improving productivity and also upgrading the brand of the complex. then, it is recommended that the managers of sports complexes in Mazandaran Province, by improving the safety conditions of these complexes and preventing the occurrence of various accidents, and by implementing, maintaining and continually improving the safety management system, provide the ground for improving the efficiency and effectiveness of the complex as well as improving the perceived quality of services in the minds of the general customers and consequently, upgrading the brand of the complex. Overall, the inferential results of the research showed that all factor loadings (standardized regression coefficients) and the t-statistics were at acceptable levels of significance, and these indicators suggest that the observed measurement variables were well-reflective of the latent variables (integrated management system and productivity). Additionally, the model fit was confirmed through various fit indices. In fact, the research model based on the positive and direct effect of the integrated management system on productivity was confirmed. It was previously stated that productivity refers to obtaining the maximum possible profit through the optimal utilization and use of labor, power, talent and skills of human resources, land, machinery, money, time, location, etc. to promote the welfare of society. Productivity is divided into individual, organizational and national levels and has resources and benefits such as cost savings, employee career advancement, creating an

attractive work environment, general employee training, job security, increased salaries, welfare and work motivation. According to the definition of the Japan Productivity Center, productivity is the scientific maximization of the use of physical resources, human resources and other factors, which leads to cost reduction, market expansion, increased employment and a higher standard of living for all members of society. In essence, productivity can be defined as the sum of effectiveness and efficiency, and considering the definitions of efficiency and productivity, productivity can be understood as the proper execution of the right tasks. Now, it is necessary to investigate the variables that can affect productivity, and according to the literature and background on productivity, one of these variables is the integrated management system.

The integrated management system has been proposed with the aim of integrating three management standards: quality management (ISO 9001), environmental management (ISO 14000), and occupational health and safety management (OHSAS 18000) to achieve a comprehensive management system. It plays an important role in the efficiency of quality, environmental, and occupational health and safety performance, and with a rational and systematic management approach, it leads to desirable strategic and operational decision-making. The main objective of the integrated management of quality, environment, health and occupational safety systems is to optimize business, respond to customer demands and stakeholder expectations, and achieve profitability. Based on this, and after the introduction of recent standards and the successful results of implementing these approaches, many organizations have recognized the effective role of establishing these types of standards in increasing organizational effectiveness and their useful contribution towards organizational goals. Furthermore, the quality and effectiveness of safety, health, and environmental management

systems are critical and vital factors in the realization of the objectives of various organizations. As a result, the high costs required for providing diverse services and products, as well as the low effectiveness of these systems, have led to a focus on these activities to improve system performance.

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