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Research Article

PERFORMANCE ASSESSMENT OF MANAGEMENT SYSTEMS HEALTH, SAFETY AND ENVIRONMENT (HSE-MS) BASED ON THE SWOT MODEL

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ABSTRACT
SWOT analysis is a crucial element of strategic planning process to help organizations to understand their strengths, weaknesses, opportunities and threats. The purpose was performance assessment of management systems health**,** safety and environment (HSE-MS) based on the SWOT model. In the study, following phases were used: Designing external and internal factors matrix. II) Analyzing SWOT matrix. III) Designing Quantitative Strategic Programming Matrix (QSPM). IV) Priorities identified strategies. Based on SPACE Matrix analysis, WT strategies considered as appropriate strategies for development of management welfare services in south oilfield company, Iran. Also, based on the results of QSPM, the WT strategies prioritized:
1) WT12: Reduction of industrial waste, with the use of non-consumable goods
2) WT3: Priority environmental goals into economic goals
3) WT7: The use of experts, environmental activists and non-governmental organizations and interested students for planning in the education sector, and the implementation of general and specialized courses in the field of environmental.
4) WT10: Procurement of equipment for the modernization of the complex with the use of the domestic market due to sanctions.
5) WT8: Funding to meet the equipment problems of safety systems
6) WT1: Funding for the strict implementation of comprehensive waste management program
7) WT4: Environmental studies with the participation of environmental groups in the field of waste management
8) WT11: Improve the a culture of environmental contractors and institutionalize it
9) WT9: Funding to upgrade the fire alarm system
10) WT2: Funding to repair facilities and transmission lines under supervision
11) WT5: Promote cultural level staff with training courses and conferences for the strict implementation of the waste management program
12) WT6: Hold environmental conferences annually to build a culture of environmental

Keywords: *Management Systems Health**,** Safety and Environment (HSE-MS), SWOT Model*

INTRODUCTION
A SWOT (**S**trengths, **W**eakness, **O**pportunity and **T**hreats) analysis can help to planers gain insights into the past and think of possible solutions to existing or potential problems — either for an existing business or for new venture. A SWOT analysis is a device that helps business manager evaluate the Strengths, Weaknesses, Opportunities, and Threats (SWOT) involved in any business enterprise — including farms and ranches (USDA, 2008; Nouri *et al.*, 2008). Specifically, SWOT is a basic, honest model that assesses what an business can and cannot do as well as its potential opportunities and threats.
Salehi and Karimi (2014) in their research with title of utilization of SWOT model for codification of HSE system management strategies in Ahvaz tubing company, based on the conducted analyses, for strategic management of HSE system in Ahvaz Tubing Company, the following cases can be presented as suggestions:
1. Implementation of the formulated strategies based on the priority and growing attention to the needs of the beneficiary groups.

2. Correction of present management processes using the current strategic status of the company.
3. Investigation of trend of environmental developments at different time period in order to follow the time trend and investigation and prediction of different states of the future and presentation of proper strategies of that time.
4. Investigation and research regarding the application of different models of SWOT model and comparison with the results of application of David's model in this study.

Yildiz (2007) revealed that there are two major reasons why the HSE-MS has become so widespread: (1) The traditional way of compliance is no longer drives improved performance. Enjoying a top class HSE performance requires a long-term corporate vision and a sustainable investment in HSE. Therefore, companies consider compliance with the safety requirements as the bare minimum and do more than this in order to become the industry leader. In a highly competitive global market with varying economic forces, complying with several international standards is of great importance. (2) A structure is required. When it comes to implementation of the above-mentioned processes of the HSE management programs, corporations find it difficult to comply with several elements, most of which are overlapping and require similar tasks. Hence, a structure that enables a clear framework becomes vitally important.SWOT analysis is a crucial element of strategic planning process to help organizations to understand their strengths, weaknesses, opportunities and threats. The SWOT analysis can be simple or complex subject to the specific organizational situation. A SWOT analysis is designed to help an organization understand how it relates to its external environment. In other words, 'to act as a way of seeing if the organization is aligned with the world going on around it' (Miller and Cardinal, 1994; Robinson, 2003). The SWOT analysis is an extremely useful tool for understanding and reviewing the company's position prior to making decisions about future company direction or the implementation of a new business idea. A SWOT analysis can be completed by an individual within the organization (provided they can take an overview of the current situation) but is often best completed in a team or group. The discussion itself is informative, and the quality of the output is better if perceptions are gathered from a number of people (Bell, 2002).

MATERIAL AND METHODS

SWOT analysis technique was used for indicate current constraints and future possibilities of management welfare services in south oilfield company, Iran. The purpose was performance assessment of management systems health**,** safety and environment (HSE-MS) based on the SWOT model. In the study, following phases were used:

I) Designing external and internal factors matrix.
II) Analyzing SWOT matrix.
III) Designing Quantitative Strategic Programming Matrix (QSPM).
IV) Priorities identified strategies.

Table 1: SWOT analysis Matrix

	Strengths	**Weaknesses**
Opportunities	How do I use these strengths to take advantage of these opportunities?	How do I overcome the weaknesses that prevent me taking advantage of these opportunities?
Threats	How do I use my strengths to reduce the impact of threats?	How do I address the weaknesses that will make these threats a reality?

(Whalley, 2010)

RESULTS AND DISCUSSION

Results

I) Designing External and Internal Factors Evaluation Matrix:

At this phase of research, external (opportunities and threats) and internal (strengths and weaknesses) factors that affected on welfare services in south oilfield company, Iran was evaluated. Based on the

results, each item ranked and importance ratio coefficient identified. Based on the results the score of external and internal factor were 1.553 and 2.451.

A: External Factor Evaluation (EFE) Matrix (Table 1):

The first part of the SWOT analysis requires looking outside our business at issues that we cannot control but can manage to enhance or reduce their impact on our business. The EFE matrix is the strategic tool used to evaluate firm existing strategies, EFE matrix can be defined as the strategic tool to evaluate external environment or macro environment of the firm include economic, social, technological, government, political, legal and competitive information.

Table 1: External Factors Evaluation Matrix (EFEM)

	External Factors	**Weight**	**Rating**	**Weighted Score**
Opportunities	Ability financing for environmental projects	0.0895	2	0.179
	Financing necessary to implement the waste management plan	0.0785	2	0.157
	Cheap technology for mounting incinerators and waste water treatment	0.0565	2	0.113
	Continuous monitoring environmental agency	0.046	2	0.092
	Developing policies HSE-MS to establish management systems health**,** safety and environment	0.045	1	0.045
	The use of the capacities of the private sector to consult and establishment of management system HSE	0.0445	1	0.0445
	Take advantage of the knowledge base of various academic disciplines	0.0405	2	0.081
	Take advantage of the capacities of research centers and academics to carry out research projects	0.0345	2	0.069
	Use of corporate environmental experiences in the field of recycling residues	0.024	1	0.024
	The existence of appropriate equipment for collecting waste and residues	0.0235	2	0.047
	SMS and IVR systems are Setting up to receive events, and environmental and health problems	0.0175	1	0.0175
Total		0.5		0.869
Threats	Despite international sanctions and restrictions on the import updated technology	0.1095	2	0.0895
	Lack of funds and financial restrictions	0.0895	1	0.0565
	Restrictions on the purchase of equipment due to existing sanctions	0.0565	1	0.049
	Weakness in some institutions that related to health**,** safety and environment in monitoring HSE activities	0.049	1	0.0435
	Cultural weakness of employees to work in some of the environmental programs	0.0435	1	0.081
	Unfavorable weather conditions of the region	0.0405	2	0.069
	Media reflects the overall problems of safety, health, environmental and passive defense and crisis management	0.0345	2	0.028
	Low ecological knowledge of indigenous peoples	0.028	1	0.0255
	Invasion of privacy safety through unauthorized construction	0.0255	1	0.0235
	Its not working with environmental NGOs	0.0235	1	0.179
Total		0.5		0.684
Total Weighted Score		1		1.553

EFE matrix method is a strategic-management tool often used for assessment of current business conditions. The EFE matrix is a good tool to visualize and prioritize the opportunities and threats that a business is facing.

The EFE matrix process uses the five steps:

List Factors: The first step is to gather a list of external factors. Divide factors into two groups: opportunities and threats.

Assign Weights: Assign a weight to each factor. The value of each weight should be between 0 and 1 (or alternatively between 10 and 100 if you use the 10 to 100 scale). Zero means the factor is not important. One or hundred means that the factor is the most influential and critical one. The total value of all weights together should equal 1 or 100. It was calculated by AHP method.

Rate Factors: Assign a rating to each factor. Rating indicates how effective the firm's current strategies respond to the factor.

Multiply Weights by Ratings: Multiply each factor weight with its rating. This will calculate the weighted score for each factor.

Total All Weighted Scores: Add all weighted scores for each factor. This will calculate the total weighted score for the company.

B: Internal Factor Evaluation (IFE) Matrix:

IFE matrix is a strategic management tool for evaluating strengths and weaknesses in functional areas of a business. The IFE Matrix together with the EFE matrix is a strategy-formulation tool that can be utilized to evaluate how a company is performing in regards to identified internal strengths and weaknesses of a company. The IFE matrix can be created using the following five steps:

Key internal factors: The first step is identifying strengths and weaknesses.

Weights: IFE matrix, assign a weight that ranges from 0.00 to 1.00 to each factor. The weight assigned to a given factor indicates the relative importance of the factor. Zero means not important. One indicates very important.

Rating: Assign a rating to each factor. Rating indicates how effective the firm's current strategies respond to the factor.

Table 2: Internal Factors Evaluation Matrix (IFEM)

External Factors		**Weight**	**Rating**	**Weighted Score**
Strengths	Project-based activities of the organization	0.0725	4	0.29
	Modify existing processes to minimize waste	0.045	4	0.18
	Planning to Upgrade management system HSE	0.0405	4	0.162
	Establish procedures to reduce risks	0.0395	3	0.1185
	Assumed the contract for waste management	0.0305	3	0.0915
	Having a macro environmental goals	0.03	4	0.12
	Annual monitoring of harmful factors at work	0.0285	3	0.0885
	Realization of strategic planning	0.028	4	0.112
	Regular meetings management about management system HSE	0.0255	4	0.102
	Documentation Emergency Response Plan	0.022	3	0.066
	Promotional activities to increase knowledge of HSE	0.0185	3	0.0555
	Annual monitoring of environmental parameters	0.0145	4	0.058
	The existence of environmental agreements in the field of air purification, soil and water	0.0125	3	0.0375
	Implementation of internal and external audit	0.012	3	0.036
	Preparation and maintenance of documentation records of HSE	0.011	3	0.033

	There is a policy in the field of prevention of environmental pollution	0.01	4	0.04
	Using experts in the field of HSE	0.01	4	0.04
	Diversity of the organization activities	0.009	3	0.027
	There is performance evaluation system	0.0075	3	0.0225
	Green Space Development	0.0075	3	0.0225
	Determine performance based on pre-determined criteria	0.006	4	0.024
	Change management about HSE in the organization	0.006	3	0.018
	Management's commitment to the HSE issues	0.005	4	0.02
	Use of appropriate methods to assess HSE risks	0.0045	3	0.0135
	There is the complaints and suggestions system on of the organization	0.004	4	0.016
Total		0.5		1.794
Weaknesses	Low technology in some equipment	0.0895	1	0.0895
	Lack of strict implementation of a comprehensive program in the field of waste management	0.0565	1	0.0565
	Old facilities and pipelines, corporate houses, halls and...	0.046	1	0.046
	The lack of funding allocated to HSE	0.0445	1	0.0445
	Incompatibility of some environmental and economic goals	0.0435	1	0.0435
	Lack of awareness among some staff about top management commitment in the policy management system	0.0405	2	0.081
	Lack of coordination between HSE unit with other units	0.0345	2	0.069
	Lack of institutionalization of culture in the field of HSE	0.028	1	0.028
	Lack of institutionalization of management system culture in the field of HSE	0.024	2	0.048
	Company passive collision on issues of non-compliance with HSE	0.0235	2	0.047
	There is no specific program in the field of air pollution and noise	0.0105	2	0.021
	Time being in financing	0.0095	2	0.019
	Lack of incentives and punitive policies	0.009	2	0.018
	There is some technical glitches in the system and the fire suppression announcement	0.0075	1	0.0075
	Lack of proper communication with universities and scientific centers	0.0065	1	0.0065
	Lack of proper procedures for identifying environmental assessment	0.0055	1	0.0055
	Shortage expert staff and specialist	0.005	1	0.005
	The lack of incinerators	0.0045	2	0.009
	Poor educational structure	0.004	2	0.008
	Lack of training for new employees comers	0.004	1	0.004
	Low level of environmental knowledge of often staff	0.0035	1	0.0035
		0.5		0.657
Total Weighted Score		1		2.451

II) Strategic Position and Action Evaluation (SPACE) Matrix:

The SPACE matrix is a management tool used to analyze a company business. It is used to determine what type of a strategy a business should undertake. The SPACE matrix is broken down to four quadrants where each quadrant suggests a different type or a nature of a strategy: Aggressive, Conservative, Defensive and Competitive. The SPACE Matrix analysis functions upon two internal and two external strategic dimensions.

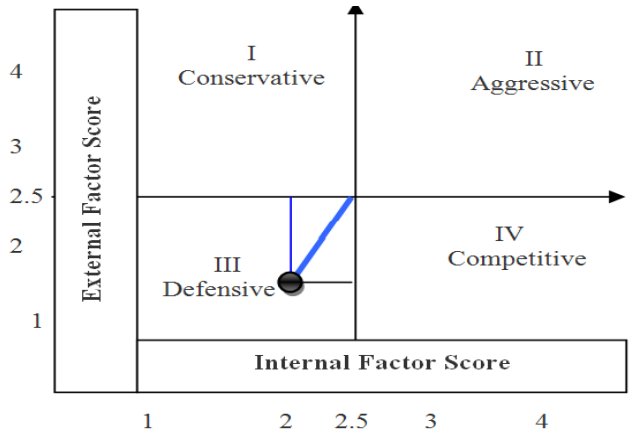

Figure 1: Space Matrix

III) SWOT Matrix

SWOT is the first step of planning and helps planners to focus on key subjects. SWOT method is a key tool for businesses to formulate strategic plans.

SWOT matrix including four strategies groups:

1- How are used strengths to take advantage of opportunities?
2- How are reduced the weaknesses by taking advantage of opportunities?
3- How are used strengths to reduce the impact of threats?
4- How are addressed the weaknesses that will make these threats a reality?

Based on SPACE matrix, group III strategies (Defensive) are the suggested strategies for management welfare services in south oilfield company.

IV): Quantitative Strategic Planning Matrix (QSPM):

The QSPM approach attempts to objectively select the best strategy. The left column of a QSPM consists of key external and internal factors. The left column of a QSPM lists factors obtained directly from the EFE matrix and IFE matrix. The top row consists of feasible alternative strategies derived from the SWOT analysis and SPACE matrix. The first column with numbers includes weights assigned to factors.

Table 3: SWOT Matrix

Internal Factors / **External Factors**	**Strengths (S)**	**Weaknesses (W)**
Opportunities (O)	**(Defensive) Suggested Strategies**	
Threats (T)		WT

Table 3: Quantitative Strategic Planning Matrix (QSPM)

Key Factors	Weight	WT_1		WT_2		WT_3		WT_4		WT_5		WT_6		WT_7		WT_8		WT_9		WT_{10}		WT_{11}		WT_{12}	
		TAS	AS	TAS	AS	TAS	AS	TAS	AS	TAS	AS	TAS	AS	TAS	AS	TAS	AS	TAS	AS	TAS	AS	TAS	AS	TAS	AS
S1	0.0725	0.145	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2175	3	0	0	0	0
S2	0.045	0.09	2	0	0	0.18	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
S3	0.0405	0.121	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
S4	0.0395	0.079	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
S5	0.0305	0	0	0.122	4	0.0915	3	0.0915	3	0.061	2	0.0915	3	0.0915	3	0	0	0	0	0.122	4	0	0	0	0
S6	0.03	0	0	0.06	2	0.09	3	0.09	3	0	0	0.09	3	0.09	3	0.09	3	0.06	2	0.09	3	0.09	3	0.12	4
S7	0.0285	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
S8	0.028	0.056	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.112	4
S9	0.0255	0	0	0.051	2	0.051	2	0.051	2	0.051	2	0.051	2	0.051	2	0.051	2	0.051	2	0.051	2	0.051	2	0.051	2
S10	0.022	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
S11	0.0185	0.037	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
S12	0.0145	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
S13	0.0125	0	0	0.025	2	0	0	0	0	0	0	0	0	0	0	0.0375	3	0	0	0	0	0	0	0	0
S14	0.012	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
S15	0.011	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
S16	0.01	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.04	4
S17	0.01	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.04	4	0	0
S18	0.009	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0.036	4	0.036	4	0	0	0	0
S19	0.0075	0.015	2	0	0	0	0	0	0	0	0	0.03	4	0.03	4	0.03	4	0.015	2	0	0	0	0	0	0
S20	0.0075	0.015	2	0	0	0	0	0	0	0	0	0	0	0	0	0.015	2	0.03	4	0	0	0	0	0.015	2
S21	0.006	0		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
S22	0.006	0.018	3	0	0	0	0	0	0	0.024	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0
S23	0.005	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.02	4	0.02	4	0	0	0	0
S24	0.0045	0	0	0	0	0	0	0.018	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
S25	0.004	0	0	0	0	0.016	4	0	0	0.008	2	0	0	0	0	0.008	2	0	0	0	0	0	0	0	0
W1	0.0895	0.179	2	0	0	0.358	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
W2	0.0565	0	0	0.226	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
W3	0.046	0	0	0	0	0.138	3	0.184	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
W4	0.0445	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.133	3	0	0
W5	0.0435	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
W6	0.0405	0	0	0	0	0.081	2	0.1215	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
W7	0.0345	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1035	3
W8	0.028	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
W9	0.024	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	

W10	0.0235	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.047	2	0.047	2	0	0	0	0	0.094	4
W11	0.0105	0	0	0	0	0.021	2	0	0	0	0	0	0	0	0	0	0	0.021	2	0	0	0	0	0.042	4
W12	0.0095	0	0	0	0	0	0	0	0	0.019	2	0	0	0	0	0	0	0.019	2	0	0	0	0	0.0095	1
W13	0.009	0		0		0	0	0.036	4	0	0	0	0	0	0	0	0	0	0	0		0		0.009	1
W14	0.0075	0.007	1	0.007	1	0	0	0.0225	3	0	0	0	0	0	0	0	0	0	0	0.0075	1	0.015	2	0.0075	1
W15	0.0065	0	0	0	0	0	0	0		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
W16	0.0055	0	0	0	0	0	0	0.022	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
W17	0.005	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
W18	0.0045	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.004	1	0	0
W19	0.004	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.004	1
W20	0.004	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
W21	0.0035	0	0	0.003	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
O1	0.0895	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.358	4
O2	0.0785	0.235	3	0	0	0	0	0	0	0.157	2	0	0	0	0	0	0	0	0	0	0	0.314	4	0	0
O3	0.0565	0.056	1	0	0	0	0	0	0	0	0	0	0	0	0	0.226	4	0	0	0	0	0	0	0	0
O4	0.046	0.046	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
O5	0.045	0	0	0	0	0	0	0.135	3	0	0	0.135	3	0.135	3	0	0	0	0	0	0	0	0	0	0
O6	0.0445	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0	0	0	0	0.133	3	0	0
O7	0.0405	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0	0	0	0	0	0	0	0
O8	0.0345	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0	0	0	0	0	0	0	0
O9	0.024	0	0	0	0	0	0	0	0	0.048	2	0.048	2	0.048	2	0.048	2	0.048	2	0.048	2	0.048	2	0	0
O10	0.0235	0.047	2	0	0	0.0705	3	0	0	0.047	2	0		0		0.047	2	0.047	2	0.047	2	0		0.047	2
T1	0.0175	0.035	2	0.052	3	0	0	0.035	2	0.052	3	0.035	2	0.035	2	0.035	2	0.0525	3	0.0525	3	0		0.0525	3
T2	0.1095	0.328	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
T3	0.0895	0.179	2	0.179	2	0.179	2	0	0	0	0	0	0	0	0	0.179	2	0.179	2	0.179	2	0	0	0	0
T4	0.0565	0.113	2	0.169	3	0.113	2	0.1695	3	0.169	3	0.1695	3	0.1695	3	0.1695	3	0.1695	3	0.226	4	0.113	2	0.226	4
T5	0.049	0.098	2	0	0	0	0	0	0	0.196	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0
T6	0.0435	0.087	2	0	0	0.174	4	0.087	2	0.087	2	0.087	2	0.087	2	0	0	0.1305	3	0.1305	3	0.130	3	0.174	4
T7	0.0405	0		0.162	4	0		0	0	0.081	2	0	0	0	0	0	0	0.081	2	0.1215	3	0	0	0.162	4
T8	0.0345	0.069	2	0	0	0		0	0	0.069	2	0	0	0	0	0	0	0	0	0	0	0	0	0.1035	3
T9	0.028	0	0	0	0	0.056	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.056	2	0	
T10	0.0255	0	0	0	0	0	0	0.0765	3	0.051	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0
T11	0.0235	0	0	0	0	0	0	0	0	0		0	0	0	0	0	0	0	0	0	0	0	0	0	0
STAS		1.376		1.01		1.515	0	1.357	0	0.879		0.776		1.510		1.41		1.066		1.471		1.139		1.971	
Priority		6		10		2		7		11		12		3		5		9		4		8		1	

(Attractiveness Scores (AS) is: 1 = not attractive, 2 = somewhat attractive, 3 = reasonably attractive, and *4 = highly attractive)*

Attractiveness Scores (AS) in the QSPM indicate how each factor is important or attractive to each alternative strategy. The range for Attractiveness Scores is 1 = not attractive, 2 = somewhat attractive, 3 = reasonably attractive, *and* 4 = highly attractive.

Total Attractiveness Scores (TAS) indicates the relative attractiveness of each key factor and related individual strategy.

Calculate the ***Sum Total Attractiveness Score (STAS)*** by adding all Total Attractiveness Scores in each strategy column of the QSPM.

The QSPM Sum Total Attractiveness Scores reveal which strategy is most attractive. Higher scores point at a more attractive strategy, considering all the relevant external and internal critical factors that could affect the strategic decision (Table 3).

The range for Attractiveness Scores is 1 = not attractive, 2 = somewhat attractive, 3 = reasonably attractive, and 4 = highly attractive.

Based on the results of QSPM, the WT strategies prioritized:

1) WT12: Reduction of industrial waste, with the use of non-consumable goods
2) WT3: Priority environmental goals into economic goals
3) WT7: The use of experts, environmental activists and non-governmental organizations and interested students for planning in the education sector, and the implementation of general and specialized courses in the field of environmental.
4) WT10: Procurement of equipment for the modernization of the complex with the use of the domestic market due to sanctions.
5) WT8: Funding to meet the equipment problems of safety systems
6) WT1: Funding for the strict implementation of comprehensive waste management program
7) WT4: Environmental studies with the participation of environmental groups in the field of waste management
8) WT11: Improve the a culture of environmental contractors and institutionalize it
9) WT9: Funding to upgrade the fire alarm system
10) WT2: Funding to repair facilities and transmission lines under supervision
11) WT5: Promote cultural level staff with training courses and conferences for the strict implementation of the waste management program
12) WT6: Hold environmental conferences annually to build a culture of environmental

***Recommendation*:**

SWOT analysis is a technique to analyze the **S**trengths, **W**eakness, **O**pportunity, and **T**hreats of business. SWOT analysis indicates a framework for helping the planners to identify the strategies of achieving goals. Based on the results considering identified strategies have vital role to development of management welfare services in south oilfield company. Based on the results below strategies are very important:

Reduction of industrial waste, with the use of non-consumable goods

Priority environmental goals into economic goals

The use of experts, environmental activists and non-governmental organizations and interested students for planning in the education sector, and the implementation of general and specialized courses in the field of environmental.

Procurement of equipment for the modernization of the complex with the use of the domestic market due to sanctions.

Funding to meet the equipment problems of safety systems

Funding for the strict implementation of comprehensive waste management program

Environmental studies with the participation of environmental groups in the field of waste management

Improve the a culture of environmental contractors and institutionalize it

Funding to upgrade the fire alarm system

Funding to repair facilities and transmission lines under supervision

Promote cultural level staff with training courses and conferences for the strict implementation of the waste management program

Hold environmental conferences annually to build a culture of environmental

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