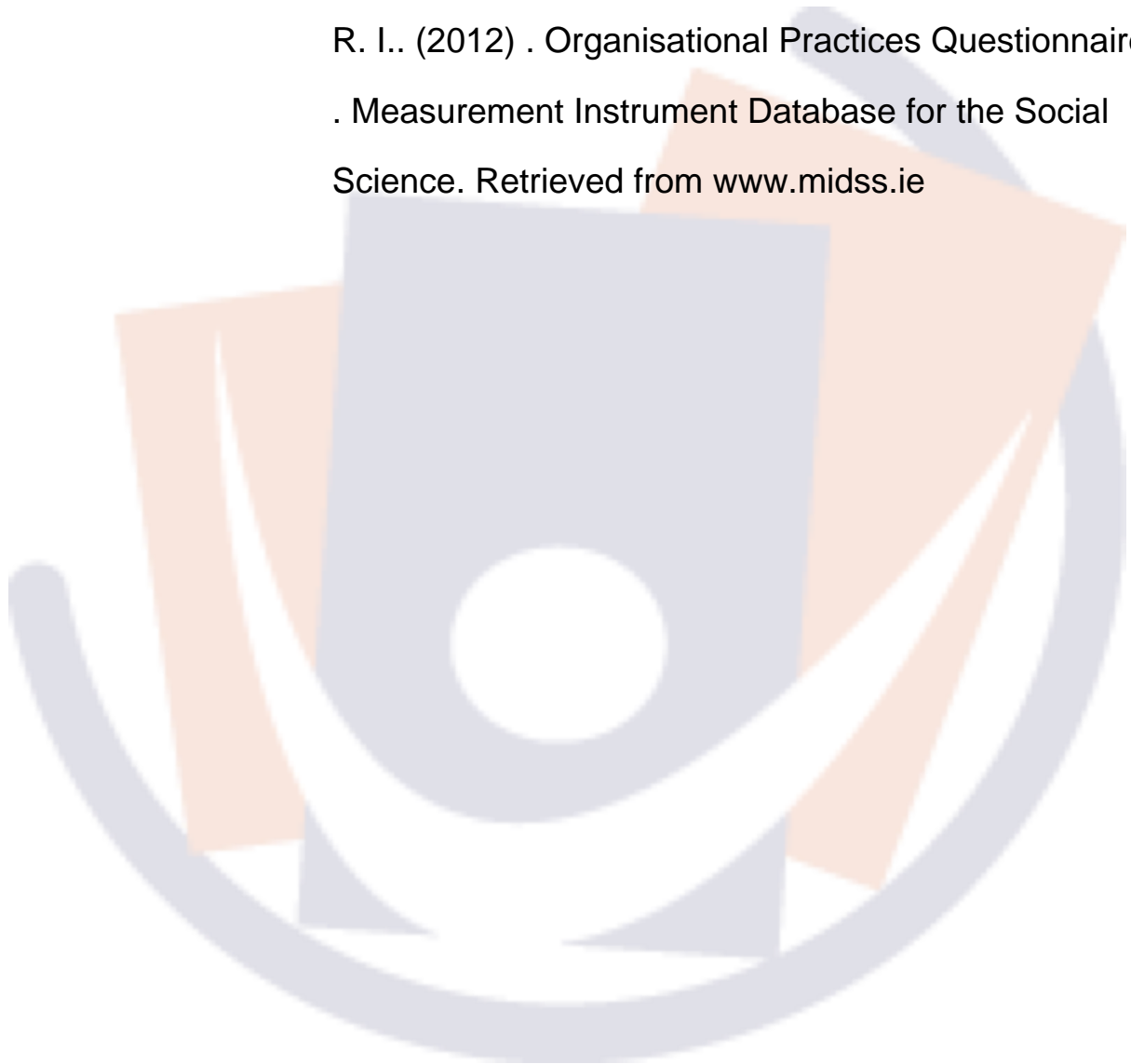


Instrument Title: Organisational Practices Questionnaire

Instrument Author: DÃ-az Cabrera, D., Hernandez-Fernaund, E., & Diaz, R. I.

Cite instrument as: DÃ-az Cabrera, D., Hernandez-Fernaund, E., & Diaz, R. I.. (2012) . Organisational Practices Questionnaire . Measurement Instrument Database for the Social Science. Retrieved from www.midss.ie





**GUIDE OF ORGANISATIONAL PRACTICES
QUESTIONNAIRE**

Introduction

The objective of the Questionnaire of Organisational Practices is to assess the cultural values, beliefs, etc. of maintenance personnel. In particular, assessing how these cultural characteristics influence safety in work processes.

Schein (1985) defines organisational culture as: *“a pattern of basic assumptions –invented, discovered, or developed by a given group as it learns to cope with its problems of external adaptation and internal integration –that has worked well enough to be considered valid and, therefore, to be taught to new members as the correct way to perceive, think, and feel in relation to those problems”* (p. 9).

There are at least three important aspects in this definition. First, culture concerns to critical assumptions determining how group members perceive, think about, and feel about things, and it does not include overt behaviour patterns. Second, culture belongs to a group; and, third, culture is learned. The definition includes two basic functions of culture: to solve problems of internal integration and of external integration (Van Muijen, 1998).

In this sense, *safety culture* of an organisation can be defined as “the product of individual and group values, attitudes, perceptions, competences, and pattern of behaviour that determine the commitment to, and the style and proficiency of, an organisation’s health and safety management” (ACSNI, 1993). In our opinion, safety is an expression of organisational culture: safety culture implies value and meaning systems, developed through negotiation between organisational members which can produce subcultures. Such subcultures are manifested, from a culture perspective of organisations, in organisational practices, symbols and rituals that can work as tangible indicators.

With the aim of dealing with the proposed objective, the Questionnaire of Organisational Practices (Annex 1) was developed with the objective of measuring those values, attitudes, perceptions and

practices that reflect the organisational safety culture. From a revision of different existing models and studies of organisational and safety culture a group of indicators was selected based on organisational values and practices that are considered as particularly relevant for optimal safety outcomes. These indicators were: incident and accident reporting system, safety standard procedures and safety rules, safe behaviour promotion, communication systems, working style of the immediate superior, training courses, and job satisfaction.

Likewise, these selected indicators and their developed items are based on the Competing Values Framework proposed by Quinn (Cameron and Quinn, 1999; Quinn and Spreitzer, 1991; Quinn, 1990; Quinn and Rohrbaugh, 1983). This theoretical framework is a relevant model to study organisational culture, because of its orientation towards the development of diagnosis instruments. Its main innovation is the recognition of the existence of paradoxes in organisations. That is, the coexistence of different management models and strategies in order to achieve global objectives. Another important function of this model is that it permits the evaluation of the organisational change needs and to what extent the organisation is prepared for a change process.

This model concentrates in two primary dimensions. The first dimension is related to organisational focus, from an internal emphasis on the well-being and development of people in the organisations to an external focus on the well-being and development of the organisation itself. The second dimension differentiates organisational preference for structure and represents the contrast between stability and control and flexibility and change. Together these two dimensions form four quadrants or culture models: Support, Innovation, Rules and Goals (figure 1).

The *human relations or support model* involves several factors: the interest of the organization in the development of their human resources, cohesion, cooperation and consensus among their members; team-working; participation; commitment and mutual confidence. This type of

work culture is called clan culture (Cameron & Quinn, 1999) or a group culture (Quinn & Spreitzer, 1991).

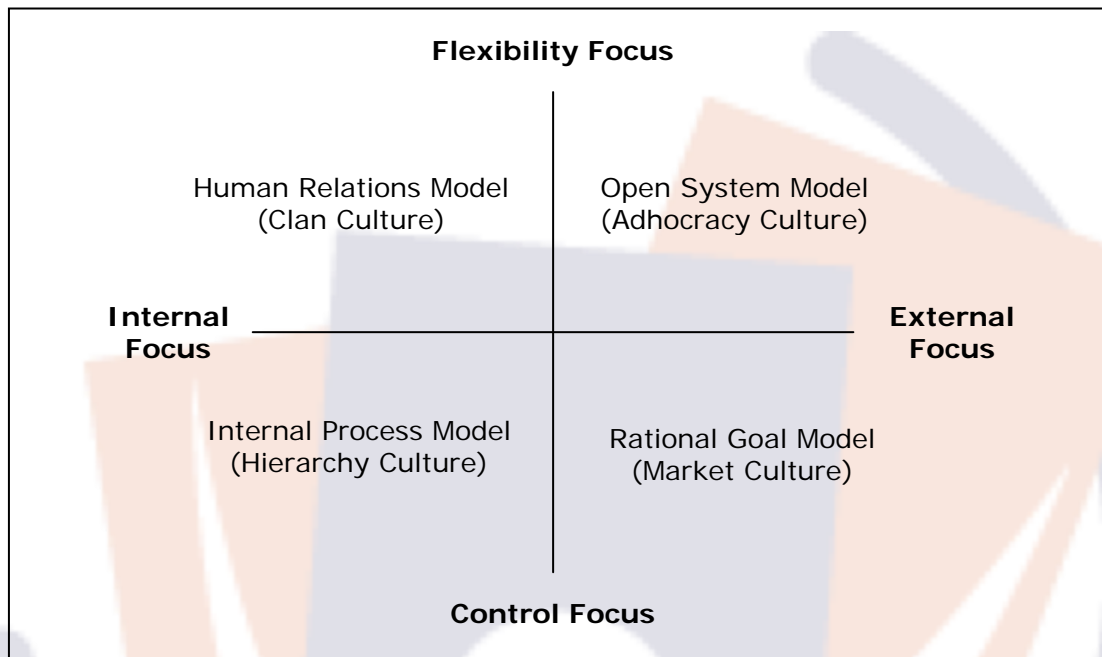


Figure 1. The Competing Values Framework. Adapted from Cameron and Quinn (1999).

The *open system or innovation model* manifests the organizations willingness towards organizational development, innovation and change. This is an adhocratic culture (Cameron & Quinn, 1999) or development culture (Quinn & Spreitzer, 1991).

The *internal process or rules model* emphasizes information management, stability, and control. This culture is called hierarchical (Cameron & Quinn, 1999; Quinn & Spreitzer, 1991).

The *rational or goals model* is characterized by effectiveness criteria based on planning, the establishment of goals, objectives and productivity. This culture is typified as a market (Cameron & Quinn, 1999) or a rational (Quinn & Spreitzer, 1991).

The *Competing Values Framework* (CVF) is not a freestanding theory or approach to organisational performance. It does not advocate any

particular strategy with regard to organisational theory, but rather it provides a unifying framework in which multiple approaches to organisational effectiveness can beneficially coexist. In essence it recognises that the shared interest in organisational effectiveness can yield a variety of perspectives and that the utility of these theories may best be found in an understanding of their underlying values. The CVF considers the possibility that more than one approach may be useful or necessary as part of organisational “sense making”, given the interplay of idiosyncratic environmental and organisational circumstances.

Scale Description

The Safety Culture Questionnaire consists of 4 sections. The first section presents a brief description of the project and specific instructions on how to fill in the questionnaire. The second section concentrates on background material both in relation to company information and about workers own personal information related to their job. The third section is comprised of 44 items about the organisational values, leadership style, motivational patterns, training programs, communication, safety behaviour promotion, use of information about incidents and accidents and, job satisfaction. Each item has a Likert response scale of 7 points to reflect the degree of agreement, satisfaction or frequency with each question.

The items comprised in this scale can be organised into two different taxonomies: 1) dimensions of organisational practices and values related with safety management systems; and 2) the organisational culture models proposed by the Competing Values Framework.

Firstly, the scale evaluates nine key organisational values and practice dimensions related to organisational safety culture. These dimensions form the empirical structure of the questionnaire (Table 1). As can be seen in Table 1, the dimensions show a high reliability, except dimensions 5, 7 and 9.

Table 1. Empirical structure of the Questionnaire of Organisational Practices.

DIMENSIONS ITEMS (Culture Model)	Explained variance	Weight	Reliability	Item-factor correlation
DIMENSION 1. COMPANY VALUES	34.51%			
5. Values rules fulfilment (R)		.70	Alfa= .91	.72
6. Values sincerity and participation(S)		.68		.73
20. Values goals achievement (G)		.63		.71
7. Values collaboration in goals achievement (G)		.59		.74
17. Values participation in safety promotion (S)		.52		.65
18. Values rules observation (R)		.48		.64
19. Values the contribution of creative ideas (I)		.48		.73
8. Values the initiative in finding new solutions (I)		.40		.70
DIMENSION 2. LEADERSHIP STYLES	7.71%			
31. Organises, co-ordinate and controls (R)		.83	Alfa= .91	.79
30. Defines and motivates goals achievement (G)		.76		.77
33. Shows the safe way to do the task (S)		.75		.74
32. Promotes cohesion, listens, communicates and helps (S)		.74		.76
36. Gives solutions for unsafe behaviour (I)		.72		.70
29. Encourages creativity, faces up to challenges (I)		.67		.72
34. Analyses the unsafe behaviour taking into account the goal to be achieved (G)		.62		.67
DIMENSION 3. MOTIVATION PATTERNS	4.99%			
38. Cares about job satisfaction (I)		-.93	Alfa= .92	.83
37. Cares about satisfaction with the work team (S)		-.92		.82
39. Cares about satisfaction with performance criteria (R)		-.88		.84
40. Cares about satisfaction with work goals (G)		-.79		.78
DIMENSION 4. TRAINING PROGRAMS	4.46%			
45. Human resources training (S)		.88	Alfa= .86	.74
48. Goal-achievement training (G)		.88		.74
46. Innovation and change training (I)		.85		.76
47. Technical and professional training (R)		.66		.57
DIMENSION 5. UPWARD COMMUNICATION	3.86%			
3. Information about accidents that interfere with achieving goals (G)		.79	Alfa= .57	.40
2. Information about accidents from own experience (S)		.71		.40
DIMENSION 6. DOWNWARD COMMUNICATION	3.47%			
27. Formal communication of safety rules and procedures (R)		.68	Alfa= .80	.65
26. Communication of safety aims (G)		.64		.64
25. Communication among workers and superiors about safety (S)		.62		.55
15. Safety rules and procedures are obligatory criteria (R)		.42		.48
18. Values observation of safety rules and procedures (R)		.45		.58
DIMENSION 7. SAFETY PROMOTION I	3.10%			
23. Safe performance obtains promotion and economic incentives (G)		-.70	Alfa= .46	.31
24. Safe performance gains social recognition (S)		-.58		.47
15. Safety rules and procedures are obligatory criteria (R)		.41		.11
DIMENSION 8. USAGE OF ACCIDENT INFORMATION	3.04%			
11. Information about non-observance of rules and sanction (R)		-.80	Alfa= .82	.58
12. Identification of training needs (S)		-.62		.66
10. Revision of work goals (G)		-.62		.72
9. Change development (I)		-.51		.63
DIMENSION 9. SAFETY PROMOTION II	2.70%			
21. A safe worker avoids penalization (R)		.72	Alfa= .58	.44
22. A safe worker gains autonomy and responsibility (I)		.50		.39
35. The immediate superior warns about possible sanctions (R)		.46		.33

Dimension 1. Company values: reflects the perceptions of workers about those aspects specifically related to safety management that the company considers relevant. These aspects are related with the incident and accident reporting system and with the safety promotion strategies: i.e. valuing rules and procedures fulfilment, the sincerity and participation of all workers in information collection about incidents and accidents, goals achievement, workers' initiative and implications for finding new solutions to improve safety, etc.

Dimension 2. Leadership styles: reflects the perceptions of workers about the behavioural style of the immediate superior. For example, whether the immediate superior: organises, co-ordinates, gives instructions, controls; defines and motivates in order to achieve objectives; shows the safe way to do the task; gives solutions to unsafe behaviours, etc.

Dimension 3. Motivation patterns: reflects the perceptions of workers concerning the degree to which the company is concerned about their employees' satisfaction with different aspects of their job, for example: job satisfaction, satisfaction with the work team, with the performance criteria, with the work goals, etc.

Dimension 4. Training programs: reflects the perceptions of workers about the type of training programs developed by the company. For example: courses regarding human resources development, goal-setting and goal-achievement, innovation and change, and technical and professional.

Dimension 5. Upward communication: reflects the perceptions of workers about aspects related to what type of information the employees give through the incident and accident reporting systems. For example, whether workers give information about incidents and accidents that interfere with achieving work goals, or about incidents and accidents from their experience, etc.

Dimension 6. Downward communication: reflects the perceptions of workers concerning those aspects related with the type of safety information provided for workers from the upper levels. For example: formal communication about safety rules and procedures, about safety aims, etc.

Dimension 7. Safety behaviour promotion I: reflects the employees' perceptions about the type of rewards gained for safe

behaviour and the importance of rules and procedures fulfilment within the company, i.e.: promotion and economic incentives, social recognition, etc.

Dimension 8. Usage of accident information: reflects the perceptions of workers concerning the degree and type of usage of incident and accident information by the company, i.e.: informing about safety rules and procedures fulfilment, detecting training needs, developing changes in work procedures, revising work goals, etc.

Dimension 9. Safety behaviour promotion II: reflects the perceptions of workers about rewards to be obtained or sanctions to be avoided by safe or unsafe behaviour. For example, avoiding sanctions or warnings, gaining greater work autonomy and responsibility, etc.

Secondly, the scale includes 11 items for each of the four culture types proposed by the Competing Values Framework: (1) Support culture; (2) Innovation culture; (3) Rules culture; and (4) Goals culture.

Scale Administration

The administration process must be anonymous, and results should be handled confidentially. The scale can be administered individually or in groups, and workers must have an adequate reading and writing, and English language level. The average length of time for scale administration is 30 minutes.

The administration process can be developed by members of the Human Resources department or Quality department, etc. but implementation by the immediate superior is not recommended.

The scale can be applied at a departmental, area or organisational level. If it is administered at organisational level, a random sample across all departments and hierarchical levels should be selected. This method would permit the detection of possible differences in safety culture among these organisational levels.

All items must be answered according to the same evaluation objective. That is to say, the immediate referent could be the whole organisation, an organisational area or a specific department. And it should be specified to all workers who respond to the questionnaire.

Results Analysis and Interpretation

The results from the questionnaire can be analysed from two different perspectives: according to the nine empirical dimensions presented above, or according to the Competing Values Framework. Below, both analysis and interpretation processes are presented.

1. Analysis and interpretation according the empirical dimensions of the scale.

Once the questionnaire has been filled in by workers, the obtained scores are introduced in the pattern presented in Annex 2. This correction pattern consists on a table where items are presented in rows and dimensions are presented in columns. The scores for each item must be entered in the grey cells of each item row. Then, the scores for each dimension are added, and the mean for each dimension is calculated by dividing the total by the number of items that constitute each dimension.

In example, the first dimension, *Company Values*, comprises items number 5, 6, 7, 8, 17, 18, 19 and 20. The scores obtained by each worker in these items would be added, and the result would be divided by 8, that is the number of items.

Once the scores for each dimension and worker are obtained, the scores for each dimension are added by department, area, hierarchical level or organisation, and the mean is calculated dividing the total by the number of workers whose scores were added.

The obtained scores are always between 1 and 7, so scores close to 7 would be interpreted as "high scores" and, scores close to 1 would be interpreted as "low scores". Also, we recommend checking if there is an optimal level of agreement among workers' answers to the scale.

High scores in one or more dimension would show that workers perceive that the characteristics of this dimension are present in their department, area or organisation. Low scores in one or more dimension would indicate that workers do not perceive that those characteristics are present. In this way, dimensions with low scores indicate the areas that require more attention in order to improve organisational safety.

Dimension 1. Company values. A high score in this dimension would point out that workers perceive that the company has positive values concerning organisational safety. These values are expressed through the company's interest in: the fulfilment of rules and procedures; workers participation and sincerity in issues related to safety; and workers contribution of ideas and new solutions for safety improvement.

Dimension 2. Leadership styles. High scores in this dimension show that workers perceive that their immediate superiors perform leadership strategies towards work goals achievement and safety promotion. These strategies are based on an active communication, a helpful and supportive attitude, and on the involvement of the immediate superior in the solution of safety related problems.

Dimension 3. Motivation patterns. A high score in this dimension reflects the perceptions of workers concerning the degree to which the company is concerned about their employees' satisfaction with different aspects of their job, such as their work characteristics, the performance criteria satisfaction, the work goals, and working in team.

Dimension 4. Training programs. High scores in this dimension point out that workers perceive that their company develops satisfactory training courses in different areas such as: technical and professional courses human resources development courses, goal-setting and goal-achievement courses, and innovation and change courses.

Dimension 5. Upward communication. A high score in this dimension shows that workers perceive that they can contribute with information about incidents and accidents not only through the system established for collecting this type of information, but from their own experience too.

Dimension 6. Downward communication. High scores in this dimension reflect that workers perceive free-flowing communication about safety issues, and about safety rules and procedure-fulfilment in the company.

Dimension 7. Safety behaviour promotion I. A high score in this dimension points out that employees perceive that the company promotes safety by using rewards. Also, safety rules and procedures are interpreted as obligatory criteria.

Dimension 8. Usage of accident information. High scores in this dimension show that workers perceive that the incident and accident information is used by the company for informing about safety rules and procedures observation, detecting training needs, developing changes in work procedures, revising work goals, and sanctioning.

Dimension 9. Safety behaviour promotion II. Finally, a high score in this dimension reflects that employees perceive that through a safe behaviour rewards are obtained and being sanctioned is avoided.

2. Analysis and interpretation according to the theoretical model of the scale.

The results from the scale can be also analysed according the Competing Values Framework, as was mentioned above. As can be observed in the correction pattern in Annex 3, each of the four culture types - Support, Innovation, Rules and Goals – collects items related to different organisational values and practices.

This theoretical model would permit us to obtain a safety culture profile at a global level and also according to individual organisational practices and values. In order to obtain these cultural profiles, when workers had filled in the scale, the scores for each culture model are added and divided among the number of items that compose each model, by using the pattern in Annex 3. In this way, mean scores for the four culture models are obtained. As in the previous scale analysis method, we recommend checking if there is an optimal level of agreement among workers' answers to the scale.

As in the analysis and interpretation process based on the empirical structure of the scale, once individual scores for each organisational process and culture model are obtained, they can be added by department, area, hierarchical or organisational level. Average scores are obtained by dividing the sum result by the number of workers that filled in the questionnaire. The obtained scores will always be between 1 and 7, so scores close to 7 would be interpreted as "high scores" and, scores close to 1 would be interpreted as "low scores".

The next step consists of the graphic representation of the safety culture profile, at a global level or by organisational processes. In order to do this, the pattern presented in Annex 4 is used. It is necessary to use as many copies of the pattern as possible, in order to represent the different organisational processes culture profiles.

As can be seen in the pattern, the four culture models are presented in the four quadrants formed by the two main dimensions of the theoretical model: Internal-External focus and Flexibility-Control focus.

In this way, in order to obtain the global organisational safety culture profile, firstly, the scores for each organisational process must be added, and average scores for each culture model must be obtained. Then, scores for each culture model are marked in their own quadrant. After that, the points for each culture type are connected by lines.

For example, the following average scores are obtained for the organisational safety culture: 7 points in the Support, 6 points in the Innovation, 4 points in the Rules, and 5 points in the Goals models. When the safety culture profile is represented, the figure 2 is obtained.

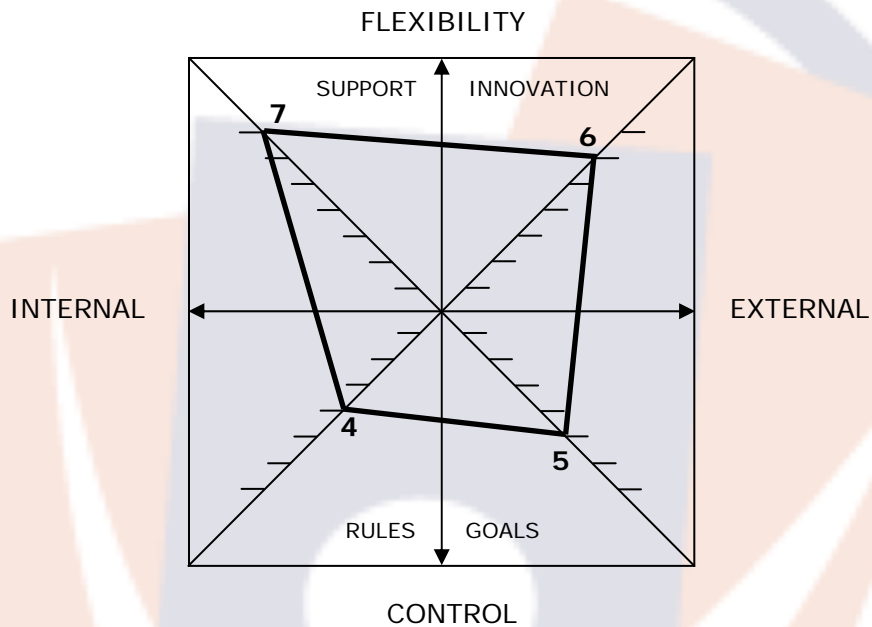


Figure 2. Example of an organisational safety culture profile.

Once the safety culture profiles are obtained, the next step consists of the interpretation of those profiles for global safety and for each evaluated organisational process. The scores obtained can be high in one or in a combination of the four culture models.

High scores in one or more of the four culture types indicate the dominant culture type in the company, at a global level or by organisational processes. So, the characteristics of this or these culture models are supposed to be more frequent in the organisation. On the other hand, low scores in any of the four culture models point out that the characteristics of this model are less frequent in the company.

High scores in the *Human Relations or Support Model* indicate an organisational interest towards human resources development, cohesion, cooperation and consensus among organisational members; working in

teams and participation; the development of and commitment with safety procedures; and mutual trust.

High scores in the *Open System or Innovation Model* reflect an organisational concern towards the external development, innovation and change of safety processes and procedures. Also, High scores in the *Internal Process or Rules Model* point out the organisational interest in information management and the stability and control of organisational safety issues.

Finally, high scores in the *Rational Goals Model* indicate an organisational concern about those aspects fundamentally related with efficacy criteria, based on planning, goals setting, productivity and competitiveness.

The interpretation of the safety culture profiles by each of the seven organisational processes would indicate the most frequent characteristics of each process, according to the dominant culture model or models, as well as the most infrequent characteristics, according to the lowest scores. Below the main characteristics for each culture model by process (Table 2) are presented.

Table 2. Organisational processes characteristics by the four culture models.

INCIDENT AND ACCIDENT REPORTING SYSTEMS	
Human Relations Model (Support)	Open System Model (Innovation)
<p>Objective:</p> <ul style="list-style-type: none"> • To increase safety commitment. <p>Method:</p> <ul style="list-style-type: none"> • Formal and informal information collection. <p>Participation:</p> <ul style="list-style-type: none"> • Promotion of high participation in reporting system. <p>Feedback:</p> <ul style="list-style-type: none"> • Results feedback to workers. • Training based on incidents and accidents information. • Social rewards based on safety behaviour. 	<p>Objective:</p> <ul style="list-style-type: none"> • Innovation of methods and procedures. <p>Method:</p> <ul style="list-style-type: none"> • Formal and informal information collection. <p>Participation:</p> <ul style="list-style-type: none"> • Information collection from all organisational members. <p>Feedback:</p> <ul style="list-style-type: none"> • Results feedback to workers. • Organisational changes based on information reporting systems. • Reward system based on improvement suggestions. • Intrinsic rewards related with job content.

Internal Process Model (Rules)	Rational Goals Model (Goals)
<p>Objective:</p> <ul style="list-style-type: none"> • Formal correction of unsafe behaviour on the job. • Safety rules and procedures fulfilment. <p>Method:</p> <ul style="list-style-type: none"> • Formal information collection. <p>Participation:</p> <ul style="list-style-type: none"> • Critical incidents and accidents information collection. <p>Feedback:</p> <ul style="list-style-type: none"> • Information about non-fulfilment. • Sanctions for non-fulfilment of rules. 	<p>Objective:</p> <ul style="list-style-type: none"> • To establish and revise goals • Evaluation of productivity and goal fulfilment. <p>Method:</p> <ul style="list-style-type: none"> • Formal information collection. <p>Participation:</p> <ul style="list-style-type: none"> • Critical incident and accident information collection and other information that affect the objectives achievement. <p>Feedback:</p> <ul style="list-style-type: none"> • Information about goals. • Economic rewards based on goals fulfilment.

SAFETY STANDARD PROCEDURES AND SAFETY RULES	
Human Relations Model (Support)	Open System Model (Innovation)
<p>Function:</p> <ul style="list-style-type: none"> • Safety standard procedures and safety rules as working guides. <p>Formalization:</p> <ul style="list-style-type: none"> • Medium formalization. 	<p>Function:</p> <ul style="list-style-type: none"> • Safety standard procedures and safety rules as development and improvement guides. <p>Formalization:</p> <ul style="list-style-type: none"> • Medium formalization.
Internal Process Model (Rules)	Rational Goals Model (Goals)
<p>Function:</p> <ul style="list-style-type: none"> • Safety standard procedures and safety rules as performance standard. <p>Formalization:</p> <ul style="list-style-type: none"> • High formalization. 	<p>Function:</p> <ul style="list-style-type: none"> • Safety standard procedures and safety rules dependent on goals. <p>Formalization:</p> <ul style="list-style-type: none"> • Medium formalization.

SAFE BEHAVIOUR PROMOTION AND MOTIVATIONAL STRATEGIES	
Human Relations Model (Support)	Open System Model (Innovation)
<p>Objective:</p> <ul style="list-style-type: none"> • Work in team (cohesion), participation and commitment. <p>Motivational Pattern:</p> <ul style="list-style-type: none"> • Intrinsic motivation. <p>Underlying Value:</p> <ul style="list-style-type: none"> • Cooperation. 	<p>Objective:</p> <ul style="list-style-type: none"> • Innovative behaviours, group creativity and commitment towards development. <p>Motivational Pattern:</p> <ul style="list-style-type: none"> • Intrinsic motivation. <p>Underlying Value:</p> <ul style="list-style-type: none"> • Stimulation.
Internal Process Model (Rules)	Rational Goals Model (Goals)
<p>Objective:</p> <ul style="list-style-type: none"> • Rules fulfilment. <p>Motivational Pattern:</p> <ul style="list-style-type: none"> • Extrinsic motivation. <p>Underlying Value:</p> <ul style="list-style-type: none"> • Conformity. 	<p>Objective:</p> <ul style="list-style-type: none"> • Goals achievement. <p>Motivational Pattern:</p> <ul style="list-style-type: none"> • Intrinsic and extrinsic motivation <p>Underlying Value:</p> <ul style="list-style-type: none"> • Achievement.

ORGANISATIONAL COMMUNICATION SYSTEMS	
Human Relations Model (Support)	Open System Model (Innovation)
<p>Content:</p> <ul style="list-style-type: none"> • Bottom-up communication: Information about risks. • Top-down communication: changes from risk evaluation. • Lateral communication: group cooperation. <p>Channel:</p> <ul style="list-style-type: none"> • Verbal and informal communication. 	<p>Content:</p> <ul style="list-style-type: none"> • Bottom-up communication: suggestions about changes and improvement. • Top-down communication: results from risk evaluations and new challenges. • Lateral communication: group innovation and creativity. <p>Channel:</p> <ul style="list-style-type: none"> • Verbal and informal communication.
Internal Process Model (Rules)	Rational Goals Model (Goals)
<p>Content:</p> <ul style="list-style-type: none"> • Bottom-up communication: limited. • Top-down communication: performance and non-fulfilment. • Lateral communication: limited. <p>Channel:</p> <ul style="list-style-type: none"> • Formal and downward communication. 	<p>Content:</p> <ul style="list-style-type: none"> • Bottom-up communication: goal achievement and suggestions about goals. • Top-down communication: goal achievement results and goal changes. • Lateral communication: corporate goals. <p>Channel:</p> <ul style="list-style-type: none"> • Formal and informal communication.

LEADERSHIP STYLE	
Human Relations Model (Support)	Open System Model (Innovation)
<p>Human relations oriented leadership Roles: Mentor / Facilitator.</p> <ul style="list-style-type: none"> • Team builder. • Developing others. • Participative decision-making. • People oriented. • Interpersonal communications. • Feedback towards individual development. • Fosters participation. 	<p>Transformational leadership Roles: Visionary / Innovator.</p> <ul style="list-style-type: none"> • Creative problem solving. • Fosters change and adaptation to change. • Presentation and persuasion. • Negotiation and developing of new resources. • Maintains external team legitimacy • Anticipates change. • Developing new knowledge. • Transmits a global vision about the organization and everyone's role.
Internal Process Model (Rules)	Rational Goals Model (Goals)
<p>Autocratic leadership Roles: Coordinator / Monitor.</p> <ul style="list-style-type: none"> • Organizes and coordinates efforts. • Evaluates performance. • Management of work planning and information. • Formal authority. • Conservative: use is warnings. • Discipline problem solving and negative rewards. • One-sided decision-making. • Fosters continuity and stability. 	<p>Transactional leadership Roles: Producer / Producer.</p> <ul style="list-style-type: none"> • Task and productivity oriented. • Goal planning and coordination. • Fosters productivity increase and goals achievement. • Gives instructions about goals. • Fosters communication rather than authority. • Delegates power and resolves conflicts • Gives contingent rewards. • Sets up clear expectations.

TRAINING COURSES	
Human Relations Model (Support)	Open System Model (Innovation)
<p>Contents:</p> <ul style="list-style-type: none"> • Working in groups: Cohesion and conflicts. • Interpersonal communication. • Leadership styles. <p>Abilities and Skills:</p> <ul style="list-style-type: none"> • Social and leadership abilities. • Group communication abilities. • Communication skills. • Team socialization. • Human Resources training. 	<p>Contents:</p> <ul style="list-style-type: none"> • Problem solving strategies. • Innovation and creativity. • Organisational learning. <p>Abilities and Skills:</p> <ul style="list-style-type: none"> • Creative problem solving abilities. • Openness to change and innovation. • Uncertainty tolerance. • Change commitment. • Socialization in uncertainty and risk.
Internal Process Model (Rules)	Rational Goals Model (Goals)
<p>Contents:</p> <ul style="list-style-type: none"> • Technical training. • Safety rules and procedures. <p>Abilities and Skills:</p> <ul style="list-style-type: none"> • Image of professionalism. • Technical abilities. • Socialization on the job. 	<p>Contents:</p> <ul style="list-style-type: none"> • Planning. • Time-management. • Goal setting. <p>Abilities and Skills:</p> <ul style="list-style-type: none"> • Logical problem solving abilities. • Supervisor's abilities: Goal setting. • Planning abilities. • Socialization in customer orientation.

According to the theoretical model, on which the scale is based, an optimal safety culture profile for all the organisations does not exist. Such a profile for each organisation depends on what the situation is and what the organisational objectives are. However, our scale provides a comprehensive measure of the organisational safety culture status, and helps to detect possible aspects that require attention in order to improve organisational safety.

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ANNEX 1:
Organisational Practices
Questionnaire



ANNEX 2



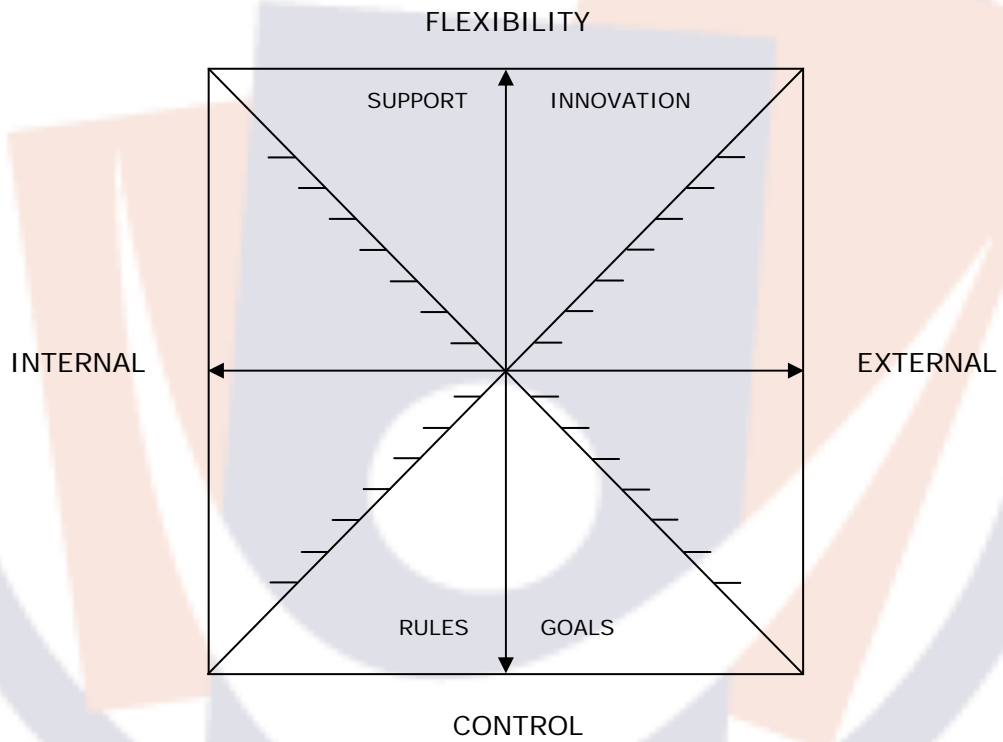
ANNEX 3

Theoretical model correction pattern scale.

	SUPPORT	INNOVATION	RULES	GOALS
Incident and accident reporting system				
1	/3=	/3=	/3=	/3=
2				
3				
4				
5				
6				
7				
8				
9				
10				
11				
12				
Safety standard procedures and safety rules				
13				
14				
15				
16				
Safe behaviour promotion				
17	/2=	/2=	/2=	/2=
18				
19				
20				
21				
22				
23				
24				
Communication systems				
25				
26				
27				
28				
Leadership style				
29	/2=	/2=	/2=	/2=
30				
31				
32				
33				
34				
35				
36				
Motivational strategies				
37				
38				
39				
40				
Training courses				
45				
46				
47				
48				
TOTAL				



ANNEX 4



Graphic representation pattern of the organisational culture profiles.