
Book Review

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Safety Culture: Assessing and Changing the Behaviour of Organisations
by John Bernard Taylor
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The first chapter presents the theoretical and methodological foundations of the concept of safety culture. The author uses the Schein model and defines the domain's key terms, such as beliefs, attitudes, artefacts etc. The 'integrated safety-culture' paradigm is primarily approached through the work of the International Atomic Energy Agency.

In the second chapter, the author discusses safety culture in terms of feedback. He uses many examples of disasters and industrial accidents: the *Titanic* (1912), Bhopal (1984), a chemical polyvinyl plant (2004), a loading accident (2004), radiation incidents at Tokaimura (1999) and in Puerto Rico (2004), to illustrate the concept of safety culture in a very pragmatic and practical way.

In the third chapter, the author focuses on the organisational dimension of safety culture. He uses his experience of the work of the IAEA to define its basic characteristics. These include 'safety is a clearly recognised value' or 'safety is integrated into all activities'. Finally, he describes how to measure safety culture in a company, using various methodologies, both qualitative and quantitative.

The last chapter of the book discusses the need for evolution and change in the management of safety culture practices within organisations. The benefits lie mainly in the economic gains. According to the author, accidents can cost up to 30% of annual profits. At the human level, gains are also obtained when employees are truly involved in a global system that integrates the concepts of leadership and support.

The book is well documented. The author analyses various accidents using a 'generic' safety culture model that aims to be predictive. It is based on the observation of maladaptive behaviours that create an unacceptable level of risk within the organisation.

The author explains how to assess safety culture. He identifies two major dimensions to take into account: a formal dimension (artefacts, systems of documentation, aspects of physical security, etc.) and an informal dimension (behaviour, human performance, attitude, appearance, etc.).

J.B. Taylor relies mainly on the work of the IAEA to identify the factors and properties of safety culture. He distinguishes five key factors:

- recognition of the value of safety
- real commitment of management
- clearly defined responsibilities

- integration of safety into all company activities
- fundamental role of learning from experience.

Each factor is described by a set of properties. For example, the factor 'recognition of the value of safety' is related to properties such as 'safety values are communicated' or 'safety is given a high priority at all levels'. Based on these elements, an analytical framework is developed, which can be used to assess the safety culture of all forms of organisation.

For the author, the analysis is a process of sampling the functions and hierarchical levels of the organisation. It brings together the formal (required documentation) and informal (safety behaviours) dimensions of safety culture. With this data, the analysis provides insight into shared beliefs about safety within the organisation, and how they lead to safe behaviour.

It is possible to use the data collected in graphical form. The factors of safety culture can be represented by axes showing the formal and informal dimensions. This gives an overview of the safety culture of the organisation by highlighting its strengths and weaknesses. If the organisation demonstrates a low level of safety culture, the author suggests carrying out a specific study in order to identify the real beliefs in the organisation that are the origin of poor safety performance.

J.B. Taylor also considers the effects of changing the safety culture, by highlighting the positive and negative impact on company employees. Anxiety is given as an example, and discussed with emphasis on the fact that the evolution of beliefs and values can create uncertainty, and at the same time, a significant feeling of anxiety. Moreover, the author insists that the commitment of management is essential to support the process, in order to reduce barriers and resistance to change. He proposes three major phases of change:

- 'recognition', which characterises the need and purpose of change
- 'rejuvenation', which follows and supports change
- 'resolution', which corresponds to efforts to consolidate and sustain the cultural change which has been initiated.

These three steps emphasise that cultural change is a slow and complicated process.

The author proposes a 'generic' model of safety culture based on the work of Schein. The book has a wealth of definitions and illustrations. A significant portion of the book is devoted to the study of major accidents. For each of them, the author conducts an analysis using the explanatory model. Concrete and pragmatic information is also given, in order to assess the safety culture of an organisation, using IAEA terminology. Many analytical frameworks illustrate the methodology. The book will be of interest to managers concerned with the issue of change management. The issues are further defined through the discussion of the role of leadership and psychological dimensions.

In his conclusion, J.B. Taylor suggests a simple method with which to begin the process of building a safety culture. This is a self-assessment tool based on a series of ten questions that will give preliminary indications on the strengths and weaknesses of the safety culture in the organisation.

John Bernard Taylor's book is particularly well documented and richly illustrated. His line of thought is as much methodological and operational as it is theoretical.