

# Decision-Making Model to Assess Organizational Climate in Healthcare Organizations

Kassia Tonheiro Rodrigues, Federal University of Santa Catarina, Brazil\*

Carolina Lino Martins, Federal University of Mato Grosso do Sul, Brazil

João Batista Sarmiento dos Santos Neto, Federal University of Mato Grosso do Sul, Brazil

Diego Rorato Fogaça, Federal University of Mato Grosso do Sul, Brazil

Sandra Rolim Ensslin, Federal University of Santa Catarina, Brazil

## ABSTRACT

Organizational climate impacts on the employee's well-being, commitment, and positive behavior. Most studies to assess climate in healthcare organizations use qualitative and/or statistical methods. Here, the authors propose a general framework, based on a multiple-criteria decision-making/aid (MCDM/A) method, which considers different objectives in a single problem. Such framework includes internal and external factors to assess organizational climate and presents adequate results when tested in a particular case. To assess the organizational climate, they use the ELECTRE TRI method, an outranking method that combines the decision-maker (DM) preferences and his value judgments. They conclude that MCDM methods can improve agility, provide a systemic vision on organizational climate assessment, and contribute to the decision-making process

## KEYWORDS

DSS, Healthcare Organizations, MCDM/A, Organizational Climate

## INTRODUCTION

In the context of economic crisis, the use of advanced management methods can be an option to improve organizations' performance. For instance, employment of Information and Communications Technology (ICT) and Decision Support Systems (DSS) aid managers to analyze current situations and orient them to make better decisions (Edelhauser et al., 2010). In the healthcare industry, Medical Information Systems (MIS) contribute to a "patient-centered" medicine where patient's needs and preferences are pivotal for the process (Rajković et al., 2013) and provide "a safer, better, more rational and better-integrated healthcare system, for both the citizens and healthcare employees" (Milenković et al., 2009).

Healthcare institutions have been demanded to deliver more complex services with fewer resources (Goh et al., 2013). The increasing competition between public and private hospitals in many countries lead consumers and other stakeholders to require better quality from such services, e.g.,

DOI: 10.4018/IJDSST.286182

\*Corresponding Author

This article published as an Open Access Article distributed under the terms of the Creative Commons Attribution License (<http://creativecommons.org/licenses/by/4.0/>) which permits unrestricted use, distribution, and production in any medium, provided the author of the original work and original publication source are properly credited.

patient's perceptions and expectations to meet what is delivered to them (Abuosi & Atinga, 2013). Usually, there is still much room for improvement in different areas at the healthcare system due to significant gaps between what a patient should receive and the care they do receive (Akins & Cole, 2013). Thus, assessing organizational performance regarding quality and management has become increasingly important (Giannini, 2015).

Although technology plays an essential role on organizational development, in knowledge-intensive industries, such as healthcare, human capital is the key for the growth and success of an organization. Human Resources Management (HRM) support the offer of intangible services provided by medical professionals that are related to emotions, satisfaction and intelligence (Permarupan et al., 2013; Yang & Lin, 2009). Employee satisfaction is positively associated with both customer satisfaction and financial performance (Akdere, 2009; Giannini, 2015). Enhancing organizational climate (employee's involvement, accountability and synergies) promotes higher user-satisfaction (Giannini, 2015; Wienand et al., 2007).

Organizational climate and organizational culture are two concepts that are often utilized to understand how people experience and interpret their workplace. Organizational culture can be characterized as "the basic assumptions about the world and the values that guide life in organizations" and organizational climate can be defined as "the meanings people attach to interrelated bundles of experiences they have at work". They are two intertwined constructs that directly affect the efficiency and effectiveness of any organization (Schneider et al., 2012).

A "proper" working environment implies good relationships among co-workers and vice versa (Loaiza et al., 2017). It results in a superior situation for both employees and patients. A better patient safety climate brings higher hospital outcomes and job satisfaction, which has influences on staff turnover (Goh et al., 2013). Wellbeing and good psychological climate of the workplace reduce the Burnout Syndrome (Stoyanov & Cloninger, 2012) and risk factors (Clarke et al., 2012) and an adequate organizational culture is an important diver of Infection Prevention and Control (IPC) (Borg et al., 2015; De Bono et al., 2014).

Most organizational climate assessment studies use qualitative methods (Malloy et al., 2009; Smollan & Sayers, 2009) and mixed-methods (Loewen & Loo, 2004; Roch et al., 2014). Still, quantitative survey methods prevail (Schneider et al., 2012) either for healthcare (Colla et al., 2005; Gershon et al., 2004) or other service areas (Davidson, 2003; Dimitriadis, 2007). However, studies using multiple criteria decision making/aid (MCDM/ A) are missing to evaluate organizational climate.

MCDM/A methods provide an essential and efficient way to support the decision-making process, considering multiple criteria, and incorporating the decision-maker (DM) preference structure (De Almeida et al., 2015). Therefore, this paper proposes a general framework to assess organizational climate in healthcare organizations using a MCDM/A method. Also, the presented framework is tested in a particular case.

We conduct the preference modeling through a non-compensatory approach, the Elimination and Choice Translating Reality (ELECTRE TRI), an outranking method (Mousseau et al., 2000). ELECTRE TRI is one of the most used methods for multicriteria sorting problematic (De Almeida et al., 2015). In this study, the Decision Support System (DSS) MCDA – Ulaval assists the use of ELECTRE TRI.

The organization of the paper is as follow. Section 2 includes a literature review about organizational climate assessment in healthcare organizations and multicriteria decision methods. The third section presents the decision-making model proposed. Section 4 shows the decision-making model application and discusses its results. We conclude the study in Section 5.

## BACKGROUND

### Organization Climate Assessment in Healthcare Organizations

Each organization has its specificities, values, norms, and behaviors that are deemed appropriate according to the perception of employees and managers, which may be affected depending on its

17 more pages are available in the full version of this document, which may be purchased using the "Add to Cart" button on the publisher's webpage: [www.igi-global.com/article/decision-making-model-to-assess-organizational-climate-in-healthcare-organizations/286182](http://www.igi-global.com/article/decision-making-model-to-assess-organizational-climate-in-healthcare-organizations/286182)

## Related Content

---

### A Multi-Criteria Decision-Making Model for Selecting a Maturity Model

João Batista Sarmiento dos Santos-Neto and Ana Paula Cabral Seixas Costa (2023).

*International Journal of Decision Support System Technology* (pp. 1-15).

[www.irma-international.org/article/a-multi-criteria-decision-making-model-for-selecting-a-maturity-model/319305](http://www.irma-international.org/article/a-multi-criteria-decision-making-model-for-selecting-a-maturity-model/319305)

### Design of a Decision Support System for Resource Allocation in Brazil Public Universities

Carolina Lino Martins, Adiel Teixeira de Almeida and Danielle Costa Moraes (2019).

*International Journal of Decision Support System Technology* (pp. 20-34).

[www.irma-international.org/article/design-of-a-decision-support-system-for-resource-allocation-in-brazil-public-universities/216940](http://www.irma-international.org/article/design-of-a-decision-support-system-for-resource-allocation-in-brazil-public-universities/216940)

### The Rationale behind Implementation of New Electronic Tools for Electronic Public Procurement

Nataša Pomazalová and Stanislav Rejman (2013). *Public Sector Transformation*

*Processes and Internet Public Procurement: Decision Support Systems* (pp. 85-117).

[www.irma-international.org/chapter/rationale-behind-implementation-new-electronic/72645](http://www.irma-international.org/chapter/rationale-behind-implementation-new-electronic/72645)

### Decision Support System for Diabetes Classification Using Data Mining Techniques: Classification Using Data Mining Techniques

Ahmad M. Al-Khasawneh (2021). *Research Anthology on Decision Support Systems*

*and Decision Management in Healthcare, Business, and Engineering* (pp. 1091-1113).

[www.irma-international.org/chapter/decision-support-system-for-diabetes-classification-using-data-mining-techniques/282632](http://www.irma-international.org/chapter/decision-support-system-for-diabetes-classification-using-data-mining-techniques/282632)

### Understanding Organisational Decision Support Maturity: Case Studies of Irish Organisations

Mary Daly and Frederic Adam (2011). *International Journal of Decision Support*

*System Technology* (pp. 57-78).

[www.irma-international.org/article/understanding-organisational-decision-support-maturity/53816](http://www.irma-international.org/article/understanding-organisational-decision-support-maturity/53816)