
Employees balance and stability as key points in organizational performance

JOSÉ NEVES*, *Centro Algoritmi, Universidade do Minho, 4710-059 Braga, Portugal and CESPU, Instituto Universitário de Ciências da Saúde, 4760 - 409 Vila Nova de Famalicão, Portugal.*

NUNO MAIA, *Centro Algoritmi, Universidade do Minho, 4710-059 Braga, Portugal.*

GORETI MARREIROS, *Departamento de Engenharia Informática, Instituto Superior de Engenharia do Porto, 4200-072 Porto, Portugal.*

MARIANA NEVES, *Deloitte, 10 Audora Court, The Campsbourne, N87SB London, UK.*

ANA FERNANDES, *Departamento de Química, Escola de Ciências e Tecnologia, REQUIMTE/LAQV, Universidade de Évora, 7000-671 Évora, Portugal.*

JORGE RIBEIRO, *Escola Superior de Tecnologia e Gestão, Instituto Politécnico de Viana do Castelo, 4900-347 Viana do Castelo, Portugal.*

ISABEL ARAÚJO, *CESPU, Instituto Universitário de Ciências da Saúde, 4760 - 409 Vila Nova de Famalicão, Portugal.*

NUNO ARAÚJO, *CESPU, Instituto Universitário de Ciências da Saúde, 4760 - 409 Vila Nova de Famalicão, Portugal.*

LILIANA ÁVIDOS, *CESPU, Instituto Universitário de Ciências da Saúde, 4760 - 409 Vila Nova de Famalicão, Portugal.*

FILIPA FERRAZ, *Centro Algoritmi, Universidade do Minho, 4710-059 Braga, Portugal.*

ANTÓNIO CAPITA, *Instituto Superior Técnico Militar, Luanda, Angola.*

NICOLÁS LORI, *Centro Algoritmi, Universidade do Minho, 4710-059 Braga, Portugal and ICVS, Escola de Medicina, Universidade do Minho, 4710-059 Braga, Portugal.*

*E-mail: jneves@di.uminho.pt

VICTOR ALVES, *Centro Algoritmi, Universidade do Minho, 4710-059 Braga, Portugal.*

HENRIQUE VICENTE, *Centro Algoritmi, Universidade do Minho, 4710-059 Braga, Portugal and Departamento de Química, Escola de Ciências e Tecnologia, REQUIMTE/LAQV, Universidade de Évora, 7000-671 Évora, Portugal.*

Abstract

System analyses deal with interrelationships between different variables that keep the system in balance. In many analysis of complex thinking, a system is viewed as a complex unit in which the 'whole' is not reduced to the 'sum' of its parts; the system becomes an ambiguous item because it consists of several entities that interact with unforeseen results or, in other words, it is situated at a transdisciplinary level, it is impossible for an area to have a complete reading of its complexity. It was also mentioned that the concept of the open system best describes complexity by stating that 'the laws of the organization are not equilibrium, but an imbalance that is restored or compensated for by stabilized dynamics'. This idea originated from the field of thermodynamics and the second law, in which the imbalance that it maintains allows the system for an apparent balance. This fragile steady state has something of a paradox, since the structures remain the same, but their constituents are changeable. The concept of open system undoes the door to a theory of evolution that can only derive from the interactions between a system and its ecosystem. Within this systemic approach, the focus of the analysis takes into account the ambiguity, multidisciplinary and complexity associated with system adjustment, i.e. it is intended to qualify an employee job based on their experience and knowledge as a measure of their impact on the organization performance.

Keywords: Balance and stability, organizational performance, quality-of-information, entropy, logic programming, knowledge representation and reasoning, artificial neural networks