

CONTENTS

Henry Fayol, a Guru in Management	3
Sorin Ionescu	
Economic Crisis Handling	5
Santiago Costa Arranz, Florin Danalache	
The Trustworthiness of Data in Smart Homes	17
Markus Jäger, Trong Nhan Phan, Stefan Nadschläger	
Changing the Organizations' Strategic System	27
Sergio Alessandrini, Sorin Ionescu, Andrei Niculescu	
Academic – Industry Collaboration	40
Alena Buchalcevoa	
The Evolution of Managerial Skills with Age	50
Maria Hermel-Stanescu	
Changes in Production by Artificial Intelligence	61
Ovidiu Blajina	
Stress and Students' Performance	74
Ion Daniel Zaharia, Dana Corina Deselnicu, Gheorghe Militaru	

EDITORIAL

Henry Fayol, a Guru in Management

The French engineer Henry Fayol together with the American Frederick Taylor and the German Max Weber are the creators of General Management. Taylor has started scientific studies in order to set the ground in management, Fayol has defined the management activities and Weber demonstrated the importance of having a specialist in this area.

In his book „Administration Industrielle et Generale” written in 1916, H. Fayol clarified a range of aspects which are part of the contemporary management today. One hundred years after his book was written, one can notice that many of his ideas have become classic concepts in management.

Benefitting from a considerable experience in several companies’ management, but also from his capacity to synthesize and generalize, Fayol has defined the management functions and its component activities, but also the companies’ activities and functions. The changes that occurred in the meantime have no impact when it comes to his contribution to the management theory. Even though many researchers have tried to add new concepts or to underline the theory, his fundamental theory withstood time. Fayol considered that a leader needs to be specialized in a certain field, but he/she also needs management training. He realized that in a company there are not only top managers, as it was commonly understood at that moment, but also middle managers and supervisors, all being more or less involved in the execution of the functions that he has defined: forecasting, organization, command, coordination and control. He also demonstrated the management studies need to be carried on in parallel with professional studies. Today, such training and studies are carried on in universities during the bachelor, master, MBA, post-university programs and also through vocational training institutes.

After the first World War, his book was translated into many languages and became known worldwide, being considered the Bible in forming the future managers and actually creating a current entitled Fayolism, as spread as Taylorism, both contributing to the structuring of contemporary management.

Fayol used to believe that management is needed in all types of organizations, a principle which today is known as industrial management, service organization management, public



FAIMA BUSINESS & MANAGEMENT JOURNAL

management, political management, NGO management, cultural management etc. He also built 14 principles that managers need to consider in their daily activities. He entitled them principles (as Daniel Wren noticed) to show that they don't need to be applied as they are stated, and they should be considered more as guidelines. The manager needs to consider the company's environment as this will influence the principle's implementation, so the principles need to be adjusted on a case by case basis. Through this approach, Fayol has anticipated the organizational contingency theory that emerged in 1969.

H. Fayol also demonstrated the importance of team work. At that time, only worker teams were known and for this kind of teams he had recommended self-training. Today, employees work in project teams, executive teams and ad-hoc teams. He also recommended the existence of strategic teams that need to be capable of assisting the managers and act on their behalf.

After his ideas were spread, he started to have enthusiastic supporters, but also more or less severe critics. H. Mintzberg used to say about Fayol that he has not made a scientific study based on management activities and that he has only described his own experience. This is actually what happened, but as time has demonstrated, it was the experience that developed and completed the management knowledge base.

Sorin Ionescu
Editor in Chief

ABSTRACTS

Economic Crisis Handling

Santiago Costa Arranz (1), Florin Danalache (2)

(1) Universidad de Barcelona, Spain, (2) University POLITEHNICA of Bucharest, Romania

The aim of this paper is to introduce the role of management for successful crisis handling. The paper discusses good practices for getting the organization in the position to handle crises: understanding the organization, creating a new mindset in the organization, knowing the consumers, forming a crisis team, rolling out a crisis communications plan. There are some considerations about the relationships between human resource management and entrepreneurship from different points of view, employing different empirical contexts for managing different types of crisis.

The papers highlight different answers to key questions: how to respond if a vocal customer complaint suddenly went viral; how to respond to a brandjacking attack; how to create a mindset characterized by transparency, accountability, employee empowerment, planned spontaneity; how to listen to conversations unfolding on the social web about the companies' brands, and respond/employ proactive social support; how to draw up a social team charter to clarify roles and responsibilities and create an internal collaboration space for this team; how to develop a plan covering three important areas – process and culture (what/who needs to change), technologies and tools (what to use to achieve desired results), and key metrics (what to track).

Keywords: economic crisis, crisis communications, crisis team, key metrics.

The Trustworthiness of Data in Smart Homes

Markus Jäger, Trong Nhan Phan, Stefan Nadschläger

Johannes Kepler University Linz, Austria

In this paper, the authors offer the first insight into some answers of the question „how can data, information or knowledge be trusted” – especially in the context of measuring trustworthiness. The topic of smart home security is a very good research environment for this question. Building on this research environment, the authors made some investigations concerning the measurement of trustworthiness of data.

Keywords: data, IT, information, smart-home, security

Changing the Organizations' Strategic System

Sergio Alessandrini (1), Sorin Ionescu (2), Andrei Niculescu (2)

(1) University of Modena and Reggio Emilia, Italy, (2) Universiy POLITEHNICA of Bucharest Romania

The term «enterprise strategy» is used in most of the cases, but a company can have multiple strategies. The strategies build a «strategic system»; this implies the existence of non-randomly connections between the strategic options that are considered for each and every strategy. This article's purpose is to identify the strategy types that a company needs in order to operate, resulting strategic options, how to identify these options and what methods are used to evaluate strategies.

Keywords: strategic system, strategic options, strategic risk, strategy assessment

Academic – Industry Collaboration

Alena Buchalcevova

University of Economics, Prague, Czech Republic

The main contribution of this article lies in the demonstration of real academic – industry collaboration in the field of Software Quality Assurance. This collaboration between universities and business is showed on the example of the Software Quality Assurance Competence Centre (SQA CC) which is a part of the Faculty of Informatics and Statistics at the University of Economics in Prague since 2012. First, the importance of academic – industry collaboration is outlined. Then, the Software Quality Assurance Competence Centre is introduced. To demonstrate services and core activities provided by the competence centre, two successful projects implemented by the SQA CC are presented.

The aim of the REGAN (REGression ANALysis) project was to evaluate the possibility of regression testing automation. The methodology for assessing the suitability of regression testing automation together with a method of estimating the labor intensity of automated testing implementation was developed during this project. The second project is the development of an Integrated Testing Tool that interconnects test management with bug reporting and functional and performance testing. Finally, the main areas that are specific to the competence centre management and contribute to its demanding nature are identified and further discussed in the lessons learned.

Keywords: academic – industry collaboration, quality assurance software, competence centre, testing

The Evolution of Managerial Skills with Age

Maria Hermel-Stanescu

Emergent Consulting, Bucharest, Romania

The present paper proposes a model of managerial abilities based upon previous research as well as business and academic literature regarding the subject and it aims to analyze the evolution of managerial abilities by age. These abilities have been previously shown to impact the managerial performance, and they are abilities that can be learned, developed and improved. The analyzed model is part of a larger Ph.D. study, and it focuses on elements regarding personal, interpersonal and administrative skills.

Keywords: managerial performance, managerial abilities, stress management, interpersonal abilities, administrative abilities

Changes in Production by Artificial Intelligence

Ovidiu Blajina

University POLITEHNICA of Bucharest

The paper is structured in two main parts. The first part is a synthesis of the development of the current stage of the expert systems as a branch of applied Artificial Intelligence.

The common components (knowledge base, control program, conjecture component), different ways of classification, applications, development tools of expert systems are successively presented. The knowledge-based systems concept, a comparison between machine problem-solving and human expert and the most important reasons for developing the expert systems in various fields of manufacturing and management are also included in this part. In the second part of the paper, an expert inspection task planning system for Coordinate Measuring Machines (CMM) is developed using Artificial Intelligence techniques. It is generative in nature and it is based on a feature-oriented computer-aided modeling system which has been developed in association with the planning system.

Development of feature-oriented modeling system, direct pattern recognition for inspection planning, the inspection planning system and the inspection sequence are included in this part.

Keywords: expert system, artificial intelligence, inspection planning, feature-oriented modeling.

Stress and Students' Performance

Ion Daniel Zaharia (1), Dana Corina Deselnicu (2), Gheorghe Militaru (2)

(1) UPA Solutions Bucharest, Romania, (2) University POLITEHNICA of Bucharest, Romania

The motivation behind this research is based on understanding more about a syndrome that torment every individual, regardless of occupation zone. By choosing to investigate the professional stress among the master students it was made one of the multiple attempts to investigate possible factors that may influence their academic performance and their general behavior. Studying these consequences that produce changes in the behavior of individuals, solutions can be discovered, and by developing these solutions, we can use them in any professional field.

Keywords: eustress, distress, stress, performance