

TABLE OF CONTENTS

INTRODUCTION	5
I. UNCERTAINTY IN BUSINESS MANAGEMENT	11
Current problems in business management	11
Measurement and valuation of business phenomena	15
Probability and uncertainty	20
The principle of gradual simultaneity	29
The idea of the fuzzy sub-set	37
Coexistence or cohabitation of Olga and James	44
II. THE SETTING UP A BUSINESS	51
Viability of a business	51
Determination of the minimum level of activity	54
Locating future events by the Delphi method	66
The Fuzzy Delphi methods	72
Convenience of counter-expertise	77
III. THE INVESTMENT PROCESS	85
Investment requirements in business	85
Incorporation of interest rates	89
Uncertain numbers	92
Updating rates from fuzzy triangular numbers	100
Estimating the results	112
IV. DRAWING UP OF A BUDGET	129
Considerations on budgeting activity	129
The Zero Base Budgeting	135
The Fuzzy Zero Base Budgeting	146
A test with fuzzy trapezoidal numbers	164

Fuzzy sets in the Management of Uncertainty

V. ECONOMIC TREATMENT OF FIXED ASSETS	177
Fixed assets included within production activity	177
The adverse minimum method	185
The fuzzy average adversity method	192
Managing of fixed assets maintenance	197
VI. MANAGEMENT OF HUMAN RESOURCES	217
Incorporation of man into the labour activity	217
Personnel selection	219
The problem of assigning human resources	233
The Hungarian algorithm for assignment	243
Interchangeability and grouping in human resources	252
VII. ACCOUNTING IN FINANCIAL ANALYSIS	263
Accounting as a support for financial analysis	263
Provisional financial statements and uncertainty	266
Profitability in uncertainty	271
Solvency in uncertainty	279
The use of fuzzy ratios	286
General presentation of the instruments used	296
VIII. DISTRIBUTION IN COMMERCIAL ACTIVITY	311
The search for distribution channels	311
Preference between points of sale	314
The use of several channels	321
Distribution taking homogeneous groups as a starting point	325
Movement products	340

Table of contents

IX. THE IMAGE OF A BUSINESS	371
Elements conforming the image	371
Arriving at the accumulated effects in a rectangular relation	384
Elements constituting the incidence matrices	389
Analysis of the accumulated incidence matrix	396
Some final considerations	406
 EPILOGUE	 415
 BIBLIOGRAPHY	 419



<http://www.springer.com/978-3-540-20341-4>

Fuzzy Sets in the Management of Uncertainty

Gil-Aluja, J.

2004, XIII, 416 p., Hardcover

ISBN: 978-3-540-20341-4