

## TABLE OF CONTENTS

List of Figures.....	6
List of Tables.....	7
List of Charts.....	8
List of Useful Abbreviations.....	9
Introduction .....	11
1 Analysis of the States of the Art and Practice.....	13
1.1 Definition of Knowledge, Knowledge Management and the Critical Success Factors (CFS) of its Implementation .....	13
1.1.1 Knowledge.....	14
1.1.2 A Deep Take into Knowledge Management .....	21
1.1.3 CSF of KM Implementation .....	30
1.2 The Knowledge Management Process .....	32
1.3 A Few Relevant Methodologies for Implementing Knowledge Management. ....	35
1.4 Key Models for Knowledge Management Boisot's Knowledge Category Model...	37
1.5 Current Situation of the Knowledge Management in Manufacturing .....	47
1.6 Needs of Knowledge Management in the Context of Industry 4.0.....	49
2 Research Objectives, Hypotheses Statement and Methodology.....	52
2.1 Justification of the Monograph.....	52
2.2 Main Aspects of the Monograph.....	52
2.3 Goals of the Monograph.....	53
2.4 Hypotheses Statement of the Monograph.....	53
2.5 Materials and Methods .....	54
3 Key Research Findings and Analyses on the Current State of Knowledge Management .....	57
3.1 An Insight into Existing Surveys .....	57
3.2 The Importance of Questions in Assessing the Perception and Attitude Towards Knowledge Management Tools .....	58
3.3 Application of the Survey in Industrial Enterprises .....	62
3.3.1 Survey Results .....	63
3.3.2 Survey Data Analyses and Interpretation.....	71
3.3.3 Suggestions Based on Survey Data Analyses and Interpretation .....	72
3.4 Analyses of the Research Findings.....	74
3.4.1 Research Objective n.1.....	74
3.4.2 Hypothesis n.1 Testing.....	75
3.4.3 Research Objective n.2.....	78
3.4.4 Hypothesis n.2 Testing.....	78
3.5 Some Conclusion Remarks Based on the Application, Analyses and Interpretation of the Survey .....	81

4	Guidelines for the Design of a Part Sheet-Type Knowledge Management Tool and Proposal of a Methodology for its Implementation. Impact of the Implementation on Certain Studied Assembly Variables.....	83
4.1	Knowledge Management Tool – Part Sheet (PS) .....	84
4.2	Proposal of a Part Sheet-based Knowledge Management Tool.....	86
4.3	Implementation Methodology for the Knowledge Management Tool.....	88
4.4	Main Results Based on Part Sheets Implementation .....	91
4.4.1	Effects of Using Part Sheets on the Assembly Time.....	92
4.4.2	Part Sheets Usage Impact on the Manufacturing Error Rate.....	95
5	Theoretical and Practical Contributions of the Scientific Monograph .....	100
5.1	Theoretical Benefits of the Proposal .....	101
5.2	Practical Benefits of the Proposal.....	101
	Conclusions.....	103
	Bibliography.....	104
	Appendices.....	114