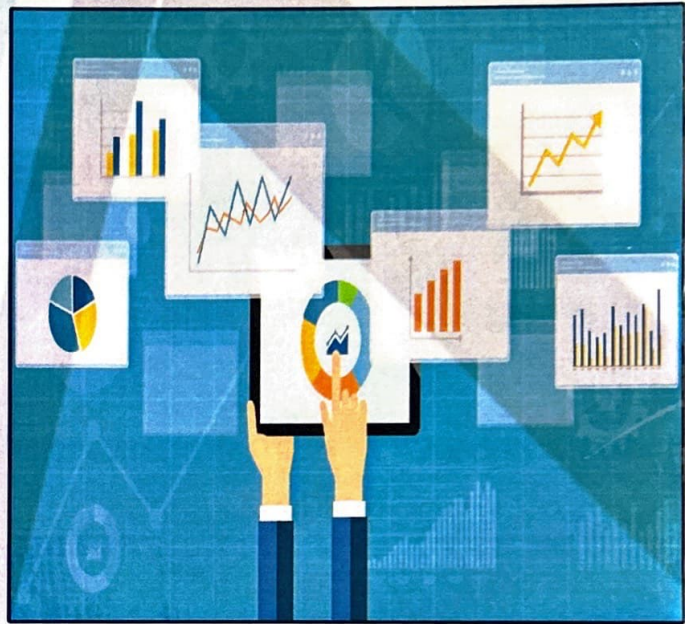


DATA-DRIVEN DECISION MAKING



Dr. Avinash S. Jagtap
Principal
Tujaram Chaturchand College
Baramati

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
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Dr. Avinash Jagtap is Head and Associate Professor of Statistics in Anekant Education Society's, Tuljatam Chaturchand College of Arts, Science and Commerce College, Baramati, (MS) India, affiliated to Savitribai Phule Pune University, Pune for the last thirty years. He has published more than 20 research papers in reputed journals and also 10 text books on different aspects of Statistics are on his credit. He is presently holding the responsibility as members Vice-Chancellor's nominee as Member of BoS in Statistics, Computer Applications and Management Studies, Member of BoS in Statistics (Science & Technology) and Member of BoS in Statistics, Vivekanand College (Autonomous), Kolhapur. He is also elected as Faculty Member of Science and Technology, SPPU, Pune. He is also recipient of "Best Student Development Officer" and awarded as "Best Coordinator Youth Welfare" by PEARL Foundation Educational Excellence, Madurai, Tamilnadu, India.

This book addresses the problem related to development of new methods for efficient decision making when the situation is complex, the risk is high and uncertainty is multifold. Today, most of the decision tree algorithms are more like classification trees, because they are supervised in nature. They do not take into account the loss or risk function, but only minimize the impurity of each resulting branch. The book aims at developing a tree-based decision making process that would satisfy optimality criteria based on a risk function. Decision theory is applicable in situations where decisions are to be made under uncertainty. Therefore, the present book has scope in all those situations where decisions are to be made under dynamic uncertainties, rather than static ones. Scope for data-driven and tree-based decision theory is almost in every field of management, because in most situations of decision making the conditions are not universal, but only restricted to a particular case. The overall conclusion is that it is possible to improve the performance of a decision tree algorithm by incorporating more meaningful and objective loss and risk functions.

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