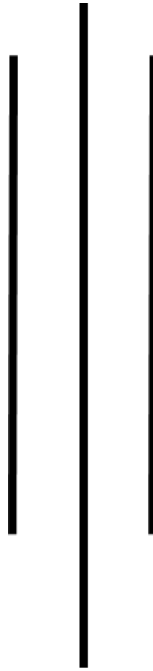




School of Engineering & Technology



Asian Institute of Technology

AT84.02: Business Intelligence and Analytics

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30 years of intelligence models in management and business: A bibliometric review

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The paper "30 years of business and management intelligence models: a bibliographic review" offers an extensive analysis of research on intelligence models in management and business over a period of three decades. Using bibliometric analysis, the study aims to assess the quantity and quality of articles related to intelligent models in management and business. The objective is to provide a comprehensive overview of the definitions, concepts, and research areas related to intelligence in the field of management and business, spanning from 1988 to 2017. To achieve this objective, the study processed over 6,392 original research articles using the SciMAT tool, which through a bibliometric analysis of existing definitions of Intelligence in the literature, the study quantifies main performance indicators, identifies key authors and research areas, and evaluates the development of the field. The bibliometric analysis reveals insights into the trends, patterns, and evolution of research in the field of management and business intelligence models.

The study reveals that the size of literature related to Intelligence research has increased significantly over the past 30 years, with a large volume of publications and citations received in this field. This growth has led to the integration of Intelligence into organizational processes, with researchers and management agents focused on improving synergies between different Intelligence approaches and their integration. The analysis identifies six thematic areas that cover the creation and exploitation of data at individual, collective, and strategic levels. These thematic areas

are Business Intelligence, Collective Intelligence, Competitive Intelligence, Data and Decision Making Process, Innovation and Organizational Performance Management, and National Intelligence. The study also identifies key research themes within these thematic areas that are considered critical to the growth of the field of Intelligence, including Artificial Intelligence and Machine Learning, Data, Information, and Knowledge Management, Internet, Semantic Web and Web Search, Organizational Performance Management and Supply Chain Management, and Security.

Based on the results of the bibliometric analysis, the study provides a visual overview of the development and structure of Intelligence and its main components, including Business Intelligence, Collective Intelligence, Competitive Intelligence, Competitor Intelligence, Market Intelligence, Economic Intelligence, National/Regional Intelligence, Strategic Intelligence, and Technology Intelligence. The findings are valuable for researchers, practitioners, and policymakers seeking to understand the current state of research and identify future directions for investigation in this area.

In addition, the study also shows that the application of intelligent models in management and business requires cooperation between experts in business, computer science and artificial intelligence. This cooperation helps accelerate the research and development of intelligent systems, and helps businesses apply smart models more effectively. In addition, the study also makes some recommendations to develop research on intelligent models in management and business. One of those proposals is to focus on applying the smart model in new areas, such as social entrepreneurship and supply chain management.

In the review, research on intelligent modeling in management and business has contributed greatly to the development of other fields such as economics, computer science and artificial intelligence. However, the application of the intelligent model in

management and business is challenging and requires the cooperation of experts in business, computer science and artificial intelligence to solve these challenges. In addition, attention should be paid to ethics and responsibility in developing and applying intelligent models in management and business. This is especially important in handling sensitive data and ensuring the reliability of intelligent systems.

In conclusion, the study "30 years of intelligence models in management and business: A bibliometric review" provides an overview of the evolution of intelligence models in management and business over the past 30 years. The study reinforces the fact that Intelligence is a growing field of study with different approaches that respond to the needs of different areas, including Big Data, Business Management, Decision Support Process, Forecasting, Knowledge Management, Information Management, Information Systems, Marketing, Internet and Social Networks, and Strategic Management.