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**THEORETICAL BASIS OF QUALITY ASSURANCE OF PUBLISHING AND PRINTING PROCESSES (PART 4. FORECASTING AND QUALITY
ASSURANCE BY MEANS OF FUZZY LOGIC)**

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***Research Methodology.*** *The methodological basis of the study consists of: theoretical motivation of the use of fuzzy logic (linguistic variables, membership functions, logic output models) for the formation and predictive evaluation of the quality of the implementation of the production technological stages of printed matter.*

***Results.*** *As a result of the research for the linguistic variables defined, a universal term-set of values and corresponding linguistic terms have been designed. A model of logical output has been developed, on the basis of which an integral index is created that identifies the level of quality of the process of designing book editions.*

***Novelty.*** *The essence of analytical support in the formation of components of information technology for predictive evaluation and quality assurance of publishing and printing processes has been revealed. A model of logical output has been developed, on the basis of which an integral index of the quality of the design process of book editions has been formed.*

***Practical Significance.*** *The significance of the functions of the membership of linguistic variables related to the design process of the publication on the example of the factor «thematic planning» has been calculated, which will form the basis for the formation of a fuzzy knowledge base and fuzzy logic equations* — *the basis for determining the integral indicator of the quality of designing book editions.*