

Master's thesis: 132 p., 24 fig., 25 tables, 2 append., 26 sources.

Object of research — economic processes in the modern world.

Subject of research — dynamic models of competition in economics.

The purpose of the work is to investigate the dynamic models of competition and describe their equilibrium states and chaotic regimes.

The novelty of the work is to identify the conditions for the simultaneous existence of several states of economic equilibrium in the given models of competition and the peculiarities of the mutual influence of competitors in the presence of chaos.

The thesis consists of four sections. The first section explores and analyzes the existing approaches to modeling competition in economic systems, criticizes the classical approach and describes a new direction — evolutionary economics. The second section is devoted to the description of the mathematical apparatus used in the study of dynamic systems, and examines some models of competition. In the third section, the study of three models of competition in the differential and discrete forms, the points of equilibrium are determined and their stability is determined. Modeling the behavior of the system under various parameters is carried out. The fourth section is devoted to the development of a startup project.

EVOLUTIONARY ECONOMICS, ECONOMIC COMPETITION,  
ECONOMIC EQUILIBRIUM, NONLINEAR DYNAMIC SYSTEMS,  
DETERMINISTIC CHAOS