MBS 93-37 Innovation Tournaments: An Analysis of Rank, Diffusion and Survival in Motion Pictures Arthur De Vany, W. David Walls

This is a study of competition in the motion picture theatrical market. Because each film is an innovation and success is driven by the rankings of film-goers, we find that the motion picture market resembles a tournament in which Schumpeterian creative destruction operates with a vengeance. We study the births, deaths and box office revenue distributions of a large sample of motion pictures. Our findings are: product lives are brief; many films last just a week and only the rare film runs 20 weeks or more. the hazard function is peaked at critical points and increasing with the length of the theatrical run. The box office revenue distribution has a tournament shape - most of its mass is concentrated on ranks 1 through 4 and 20 percent of the films earn 80 percent of the total box office revenue. The tournament is not a renewal process: positive and negative information transmission among film-goers links a film's rank over the weeks of its run. A few films show strong information effects - they open moderately and build audience over time. Coordinating the play of untested and new products through the market is a complex process of discovery and adaptation which is mediated by sophisticated contracts and industry institutions whose features we analyze in the context of our results.