

DOES 3D MAKE SENSE? THE ECONOMIC IMPLICATIONS OF ADDING A THIRD DIMENSION TO ENTERTAINMENT PRODUCTS

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ABSTRACT

Hedonic media industries face uncertainties when assessing the business potential of adding a third dimension (3D) to their products. As producing entertainment content in 3D format may require a multimillion-dollar investment, it is unclear whether such an investment is economically viable. Using the theoretical concept of hedonic consumption, we discuss the additional value of consuming a product in 3D. We derive a contingency framework of how 3D affects movie success, featuring the time of movie release, its genre and whether it is an early or late sequel to a previous movie as moderators.

Specifically, we investigate the incremental effect of 3D in the movie industry using secondary data of all 73 digital 3D movies released between 2004 and 2011 in North American theaters and a statistically matched control sample of 1,082 2D movies. We apply propensity score matching to account for the systemic difference between 3D and 2D movies that arises from a “preferred treatment” of 3D products by movie studios. We thereby provide empirical evidence for a strong sample selection bias which implies a general overestimation of the 3D effect. When controlling for this inherent difference, there is no straightforward answer to the question of whether 3D is advantageous for entertainment media producers. Instead, weighted least squares regression analysis indicates that the impact of 3D on movie success is determined by several product characteristics as well as a non-linear interaction effect with time.

References Available Upon Request.