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Abstract

Current research into video game business management is sparse. What research does exist focuses on the creative process of video game development; however the business side can longer be neglected, with individual game development project budgets in excess of US $100 million in some cases. Business management decisions are made by publishers and developers based on their tacit knowledge of what has worked in the past according to their experience; however, left unverified there is a risk that this tacit knowledge may not reflect rapidly changing market realities. Managerial economics is concerned with the optimization of the decision-making process given limited resources, and such a rational decision-making process is required if publishers and developers want to ensure that the knowledge their organizations contain best reflects the reality of the wider industry. Through this research, I will rely on a managerial economics perspective and use knowledge discovery in database (KDD) techniques to answer the following questions:

- MRQ: How can an economic perspective that views decision optimization in terms of making the best use of limited organizational resources allow for the use of data from the wider industry to question assumptions and improve video game business management decision processes?
- SRQ1: What is the state of intellectual property exploitation and exploration strategies in innovation and business management practices within leading video game organizations and how are those strategies changing?
- SRQ2: What role do women play in making creative decisions within video game development organizations and how does this compare to video game consumer demographics?
- SRQ3: How do the product scope decisions made in video game project management reflect what provides value to consumers?

This research will propose a learning process tailored to a creative industry such as video game development as an answer to the major research question. Although tacit assumptions regarding how to best employ organizational resources are traditionally difficult to question because of the artistic or symbolic nature of the products of creative industries, a managerial economics perspective allows these assumptions to be questioned and tested in a rational manner. The proposed process incorporates data from the wider video game industry to falsify or validate assumptions behind management decisions. This approach will be applied in answering the three subsidiary research questions through quantitative research into the results of one strategic innovation management decision, one human resource or "talent management" decision, and two project management product scope decisions in the video game industry. The answers to these three research questions provide examples for how KDD techniques can contribute to improving decision-making within a creative industry such as video game development. The proposed learning cycle expands on the traditional "double-loop" learning cycle by incorporating two important steps: locating decisions based on tacit assumptions and framing questions to attempt to falsify those assumptions, and then employing KDD techniques with data from the wider video game industry falsify or validate the tacit assumptions behind those decisions.

Keywords: video game development, cultural and creative industry management, business management, managerial economics, knowledge discovery in databases