Impact of Knowledge Creation on Financial Performance: An Exploratory Study

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Abstract

Evaluation of the ability of a firm to create new knowledge and to succeed in its future research and development projects possess top interest for different parties such as investors, consultants, and board directors. Prior literature has suggested a relationship between knowledge creation and market value of a firm. In this study, we suggest a design science approach using data mining tools to build a model to explore the relationship between financial performance of a firm as reflected in financial statements and the success of knowledge creation represented in patent success. To achieve this objective, we use clustering analysis, attribute evaluation, and classification algorithms. Our data comprises of 2,500 firm year financial data encompassing 10 accounting measures. Utilizing the design science paradigm and business analytics tools to examine the relationship between financial performance and knowledge creation will have significant implications for theory and practice.

Keywords

Patent success, design science, business analytics, financial performance.