

TECHNOLOGY ADOPTION AS A PREDICTIVE MEASURE OF FINANCIAL PERFORMANCE

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This study examines the connection between technology adoption and the financial performance of firms measured as daily stock returns. Using an event study methodology, I test the hypothesis that technology adoption is a statistically significant predictor of abnormal returns. Specifically, I analyze the adoption of cloud-based and Software-as-a-Service technology by firms in the Software and Computer Services industries.



This study attempts to observe a measurable link, or lack thereof, between the technology adoption of firms in the United States and the long-term financial performance of those firms. Existing research identifies technology adoption as a statistically significant indicator of wealth divergence between countries. On the firm level, a majority of the existing scholarship focuses on the impact of adopting a specific technology. The principal contribution of this study is to discuss and examine the connection between these ideas. The standard approach of looking at the impact of technology adoption, one adoption at a time, is inadequate to fully understand a firm's total technological position relative to other firms.

I approached this topic by first trying to understand how technology is defined and how technology adoption is measured. Second, I explored whether financial outcomes vary significantly on the country level. Next, I examined the connection between technology adoption's impact on the financial outcomes of countries and the potential link to technology adoption's impact on the financial outcomes of firms. After, I investigated the impact of adopting cloud computing or a Software-as-a-Service (SaaS) business model on stock returns. Last, I conducted an event study to determine if the adoption of cloud computing or a SaaS business model has a statistically significant impact on the value of a firm. Cloud computing and SaaS business model adoption are meant to serve as a proxy for holistic technology adoption in order to provide a directional understanding of value creation.

In conclusion, this study was not able to find a statistically significant relationship between the adoption of cloud or SaaS capabilities. These results lead to two conclusions. First, no relationship was observed because no relationship exists. Second, a relationship does exist, but it was not observed due to the difficult nature of measuring technology adoption. My research suggests that the second is true. There are two reasons the relationship was not observed in this study. First, it is difficult to accurately and consistently identify the exact date of adoption for cloud and SaaS capabilities. Second, it is possible that the market is unable to accurately price the long-term financial impact of cloud and SaaS business model adoption.

