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# A quantitative study into the perceived differences in expert judgement on factors that influence software development outcomes

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# Abstract

Why do some software development initiatives fail while others succeed? In most cases the answers to these questions are based on the perspectives of experts rather than measurement and empirical data collection. Are the views of these experts consistent, or do they differ? This is important because many innovations in software development methodologies are based on a response to the perspectives of different groups of experts.

The research presented in this dissertation tests whether different groups of experts had different perspectives on the outcomes of software development projects. The research methodology was guided by a quantitative design using objectivism as an epistemology and positivism as a theoretical framework. It included survey research and to facilitate generalisation of the overall result, collected data from a sample size of 384 participants at a 5% margin of error.

The research found that there is a statistically significant difference between experts in various roles and having different levels of experience. It concludes that expert judgement with respect to the outcomes of software development projects contained several cognitive biases and suggests that experts and organisations alike should consider adopting measurement and empirical data collection techniques to evaluate the value of their current practices before injudiciously adopting new methodologies.