

IMPROVING ACCOUNTING INFORMATION SYSTEM PERFORMANCE
AND ACHIEVING COMPETITIVE ADVANTAGE THROUGH
EFFECTIVE IT GOVERNANCE

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Certificate of Original Authorship

This thesis is the result of a research candidature conducted at the University of Technology Sydney as part of a Doctoral degree. I certify that the work in this thesis has not previously been submitted for a degree nor has it been submitted as part of requirements for a degree.

I also certify that the thesis has been written by me. Any help that I have received in my research work and the preparation of the thesis itself has been acknowledged. In addition, I certify that all information sources and literature used are indicated in the thesis.

Peter Chapman

4 October 2016

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Preface

This thesis is the culmination of a journey longer than my enrolment in the PhD program at UTS. IT governance and organisational IT have been a longstanding focus of my professional life as a forensic IT consultant and analyst. Over a period of 15 years I have observed and investigated hundreds of situations where organisations have suffered severe consequences from poor IT decision making. From organisations that have gone insolvent partly due to a lack of accurate and valid accounting information, to organisations that suffer substantial damage due to poor system implementations, security failures or other IT issues, often the underlying cause of the problem could be traced back to a lack of effective IT governance.

When offered the opportunity to study a PhD at UTS, I immediately knew that my topic would have to involve the role of IT governance and the impact that it can have on organisational performance. While my practical experience had given me substantial insight into what could occur in the absence of effective IT governance, I was curious as to whether organisations with effective IT governance were able to not only avoid the disasters I had witnessed, but also obtain significant benefits from this capability. This curiosity was the initial and ongoing driver for the research presented in this thesis.

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Abstract

Accounting information systems (AIS) are a vital technology-based asset for all organisations. The accounting information that is generated and distributed by these systems is essential for effective strategic decision making and achieving ongoing organisational benefits. The quality of the accounting information used for these decisions is reliant on the performance capabilities of the AIS. Prior research has identified a number of direct organisational benefits that can be obtained through effective IT governance, including improvements in the performance of organisational information systems such as AIS. This thesis expands upon prior literature by utilising the resource based view of the firm (RBV) to examine how competitive advantage is achieved via complex interactions between IT governance, AIS and other technology related capabilities and resources.

The three types of IT governance mechanism - structural, procedural and relational - are assessed from a theoretical perspective in regards to their suitability to act as RBV resources or capabilities. While only relational mechanisms are found to possess the characteristics required of an RBV resource or capability, a review of recent RBV-framed IT governance research finds that many studies give little consideration to relational mechanisms and rely predominately upon the presence of structural and procedural mechanisms to assess IT governance performance.

To confirm the significance of relational mechanisms of IT governance, this thesis tests the capacity for relational mechanisms of IT governance to contribute to competitive advantage through improving the performance of IT management capabilities and organisational AIS. Observations were collected via a survey of senior finance executives in Australian organisations and analysed using partial least squares structural equation modelling (PLS SEM). The results indicate that, under the direction and control of effective

IT governance, IT management capabilities are able to improve accounting information system (AIS) performance and thereby achieve competitive advantage.

Moderation analysis reveals that the level of competitive and technological pressure (environmental dynamism) alters the relationship between IT governance and competitive advantage. This finding suggests that IT governance not only acts as a higher order capability by directing and controlling the use of other organisational resources and capabilities, but may also be capable of acting dynamically to achieve competitive advantage through exploiting opportunities created by competitive and environmental pressures.