

*INVESTIGATING THE INTER-RELATIONSHIP BETWEEN ORGANIZATIONAL CAPABILITIES,  
DIGITAL TRANSFORMATION & DIGITAL BUSINESS STRATEGY*



**INVESTIGATING THE INTER-RELATIONSHIP BETWEEN ORGANIZATIONAL  
CAPABILITIES, DIGITAL TRANSFORMATION & DIGITAL BUSINESS STRATEGY**

**By**

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## DECLARATION OF ORIGINALITY

*I, Ayesha Nadeem declare that this thesis, submitted in fulfilment of requirements for the award of Master by Research in Computing Science, at the faculty of engineering and IT at the University of Technology Sydney.*

*This thesis is wholly my own work unless otherwise references or acknowledged. In addition, I certify that all information sources and literature used are indicated in the thesis. This document has not been submitted for qualification at any other academic institution. This research is supported by the Australian Government Research Training Program.*

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## **ABSTRACT**

Digital transformation is widely affecting various industries particularly healthcare, telecommunications, automotive, banking and manufacturing sectors. Recent research on digitalization provides evidence that numerous organizations face abundant threats and opportunities in deploying digital transformation. It is found that using the fit-for-purpose organizational capabilities is critical for organizations to effectively pursue the digital business strategy leading to requisite digital transformation; this would in turn assist organizations in gaining competitive advantage and access to new sources of revenue that are crucial for today's organization survival. While some research has previously discussed the importance of organizational capabilities for digital transformation, they have failed to offer a comprehensive picture of the organizational capabilities essential for deploying a digital business strategy and how it may lead to a fruitful digital transformation. More precisely, very few studies have elaborated on the interrelationship of organizational capabilities, digital business strategy and digital transformation concerning business performance.

The objective of this Master by Research study is:

- (i) to understand what digital transformation, digital business strategy, and organizational capability entail, and
- (ii) to propose a framework for digital transformation which describes how organizational capabilities are related to digital business strategy and digital transformation.

The framework would offer organizations and the researchers an approach for examining and evaluating the issues with previous /traditional studies and present an approach/practice for digital transformation.

The research methodology for uncovering the objectives comprises two parts: (i) systematic literature review, and (ii) interviews with experts. The first part of the methodology which is a systematic literature search includes a review of top 16 Information System journals approved from The Australian Council of Professors and Heads of Information System (<http://www.acphis.org.au/v2wp/rank-order/>). The systematic literature review initially resulted in 292 articles based on the time frame 2000-2017, out of which 28 were selected for the analysis based on relevance of their full text to this research. The main outcome of this

systematic literature review has been a conceptual framework of inter-relationship between organizational capabilities, digital business strategy, and digital transformation. This framework also demonstrates the underlying dimensions of each of these three concepts.

The second part of the methodology is expert's interviews. To evaluate the utility of the framework semi-structured interviews were carried out. The second part of this research involved interviewing 7 experts from the academia and industry and a focus group to elaborate my conceptual framework, and to assess validity of my findings. All interviews with experts and focus group were then transcribed in Nvivo. The interviews assisted me in developing the framework reliability. The data gathered from the interviews was analysed and eventually validated the findings from the systematic literature review and the framework for the professional use in industry as well as for researchers from academia. Finally, research limitations and implications were discussed, and a plan for further extension of this study through a PhD study was developed.

**KEYWORDS:** Digital transformation, Digital business strategy, Business digitalization