

**IDENTIFICATION OF COOPERATIVE
ENVIRONMENT FOR THE DIFFUSION OF
INNOVATION IN THE FIELD OF QUANTITY
SURVEYING**

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Thesis submitted in partial fulfilment of the requirements for the
Degree of Master of Science by Research

Department of Building Economics

University of Moratuwa
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DECLARATION

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ABSTRACT

Identification of Cooperative Environment for the Diffusion of Innovation in the field of Quantity Surveying

Construction industry compared with other industries are coping up with the technological revolution which directs new knowledge and information to the field. Thus, professional engaged in multidisciplinary areas must incorporate and directs towards the technological revolution with their adoption in individual and in organizational basis. Thus, the concept of diffusion of innovation emerges and it enables a social system to adopt an innovation with the aid of communicational channels over a period of time.

Nevertheless, within the Sri Lankan Quantity Surveying community, the rate of adoption of innovation is comparatively less and thus, there is requirement of identifying the nature of the social systems and the behaviour of the actors in order to study the current context of community in terms of innovation adoption. Hence their knowledge and information transmission and their impact upon a social system is required to be identified along with the individual participation in the innovation diffusion process. Subsequently, the encouragement of an influential person typically identified as an Opinion leader is required. Thus, the research was aimed to identify the nature of the social system on which actors could collaboratively engage in the process of innovation.

The study encompassed with a comprehensive literature review identifying the, innovations within the construction industry, key components of diffusion of innovation, innovation categories, factors affecting the adoption of innovation, collaboration of innovation management along with the opinion leadership. Quantitative approach through Social Network Analysis (SNA) was applied with measures of cohesion to identify nature of social networks corresponding to different innovations and measure of centrality to identify the individual behaviour of the actors of the social system.

Through the research it is revealed that the behaviour of the social network differentiates with the types of innovation where more diffusion is taken place corresponding to the innovations which are core areas corresponding to quantity surveying profession. Consequently, individual behaviour presents a tendency towards the preventive innovation category as the individual has the flexibility to adopt or reject the innovation.

Keywords: *Diffusion of Innovation, Quantity Surveying, Opinion Leaders, Innovation categorization*

DEDICATION

To my family
for their love, affection, faith
and
incessant support on me.

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LIST OF ABBREVIATIONS

BIM	=	Building Information Modelling
CA	=	Change Agent
CAD	=	Computer-Aided Design
DOI	=	Diffusion of Innovation
QS	=	Quantity Surveyor
Qs	=	Quantity Surveyors
SNA	=	Social Network Analysis

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