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KNOWLEDGE COLLABORATION IN THE EGO-CENTERED
NETWORKS OF PROFESSIONALS: THE ROLE OF RECIPROCITY,
INTERPERSONAL TRUST, AND TRANSACTIVE MEMORY SYSTEM

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requirements for the degree of

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ABSTRACT

Prior research has shown that professionals maintain a network of contacts in their relevant professions and knowledge domains for information and knowledge collaboration. Where these networks are built around individuals and are informal in nature rather than arranged by organisations, they can be considered examples of ego-centered (personal) knowledge networks (EGKNs). The role of informal networks (or EGKNs) of professionals is very important in knowledge-intensive sectors, where the access to relevant information and the ability to coordinate and combine expertise from diverse sources can make substantial difference to the performance of individuals and organisations. Research in knowledge management (KM) has yet to fully grasp the role of informal networks in individual learning and organisational performance. This thesis highlights the importance of EGKNs of professionals and investigates the process of knowledge coordination and collaboration through EGKNs, in the absence of formal structures and organisational mechanisms.

Based on theories of social exchange, social capital, and transactive memory systems (TMS), a model is proposed to explain how informal knowledge cooperation develops in the EGKNs of professionals. A large-scale survey of professionals in New Zealand was carried out to empirically validate the model. Structural equation modelling (SEM) is the main statistical technique for testing the model and hypotheses associated with the model. The results indicate that EGKNs are structured by TMS that help to develop information and knowledge collaboration among socially connected individuals. This structure is based on network members' understanding of the knowledge held by other members and the transactive processes to coordinate and integrate knowledge of network members.

This study contributes to theory building in the area of social (informal) networks, KM, and TMS. A key contribution of this research is to offer a robust model to explain how informal knowledge collaboration is developed among socially connected individuals. The study provides a novel perspective by identifying the development of TMS in the EGKNs of professionals, where task interdependence and goal congruence cannot be assumed to exist. In addition, this study links social exchange theory and the relational dimension of social capital with TMS to explain the process of informal knowledge collaboration among socially connected individuals.

Keywords: Knowledge management, ego-centered networks, social exchange, social capital, transactive memory systems

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PUBLICATIONS AND AWARDS

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- 2) Understanding the Role of Ego-centered Knowledge Networks in Problem Solving and Individual Performance. Paper presented at the 13th European Conference on Knowledge Management - ECKM 2012, Universidad Politécnica de Cartagena, Spain. *This paper received the best PhD paper award in the conference.*
- 3) What Managers Think of Informal Networks and Knowledge Sharing by Means of Personal Networking? *World Academy of Science, Engineering and Technology*, 39(72), 187-191.
- 4) Employing individuals' social capital to create value in the public sector organisations. In Y. Al-Bastaki, & A. Shajera (Eds), *Building a Competitive Public Sector with Knowledge Management Strategy* (pp. 272-293). IGI global.
- 5) Potential Enablers of Knowledge Collaboration in Ego-centered Networks of Professionals. *Knowledge Management: An International Journal*, Vol. 12 (1), 71-82. *This paper was selected in the top ten papers of the Journal for the year 2012.*
- 6) Organisational Learning and Problem Solving through Cross-firm Networking of Professionals. Paper presented at the ICICKM 2013 10th International Conference on Intellectual Capital, Knowledge Management and Organisational Learning, Washington, DC, USA.

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LIST OF ABBREVIATIONS

AVE	-	Average variance extracted
CFA	-	Confirmatory factor analysis
CFI	-	Comparative fit index
CoP	-	Community of practice
EFA	-	Exploratory factor analysis
EGKN	-	Ego-centered knowledge network
ENoP	-	Electronic network of practice
e.g.	-	Exempli Gratia (for example)
i.e.	-	Id Est (that is)
KM	-	Knowledge management
IM	-	Information management
NZKM	-	New Zealand Knowledge Management
PKN	-	Personal knowledge network
R&D	-	Research and development
RQ	-	Research question
RMSEA	-	Root mean square error of approximation
SEM	-	Structural equation modelling
SCT	-	Social capital theory
SET	-	Social exchange theory
TLI	-	Tucker-Lewis index
TMS	-	Transactive memory system