

What Managers Think of Informal Networks and Knowledge Sharing by Means of Personal Networking?

Mahmood Q.K. Ghaznavi, Martin Perry, Paul Toulson, and Keri Logan

Abstract—The importance of nurturing, accumulating, and efficiently deploying knowledge resources through formal structures and organisational mechanisms is well understood. Recent trends in knowledge management (KM) highlight that the effective creation and transfer of knowledge can also rely upon extra-organisational channels, such as, informal networks. The perception exists that the role of informal networks in knowledge creation and performance has been underestimated in the organisational context. Literature indicates that many managers fail to comprehend and successfully exploit the potential role of informal networks to create value for their organisations. This paper investigates: 1) whether managers share work-specific knowledge with informal contacts within and outside organisational boundaries; and 2) what do they think is the importance of this knowledge collaboration in their learning and work outcomes.

Keywords—Informal network, knowledge management, knowledge sharing, performance.

I. INTRODUCTION

THE need for knowledge to resolve complex problem situations requires organizational members to collaborate and share knowledge within and across organisational boundaries. Knowledge management (KM) literature suggests that effective knowledge sharing is crucial to lever knowledge of employees and gain competitive advantage for an organisation [17], [24]. In view of this, organisations implement KM systems and knowledge sharing structures to support communication and collaboration among employees [1].

Research indicates that formal structures and prescribed communication channels fail to develop effective knowledge collaboration among employees [5], [9]. On the other hand, several studies have indicated that informal networks of employees are efficient channels to share information and technical know-how [29], [31], [34], [39], [43]. These studies have highlighted a critical distinction between the formal

structures through which organisations attempt to direct the flow of knowledge and the informal structures (like social networks) through which individuals actually manage to share knowledge in practice [2], [10].

Information and communication technology tools bring opportunities for collaborative problem solving and collective innovation. The knowledge sharing literature indicates that professionals frequently cross organisational boundaries and develop knowledge sharing ties with individuals who they think can provide specialised knowledge to resolve complex problem situations [11], [37], [41]. Social networking research suggests that social ties among individuals are economic and efficient means of know-how transfer [11], [12], [42]. Evidence of knowledge collaboration through social networking and achieving collective performance were found in many industry sectors and technology clusters [14], [34], [36], [38]. On the other hand, there are studies to indicate that many managers fail to gauge and exploit the potential of informal networks in collective learning and knowledge creation [2], [8], [22]. These studies suggest that a better understanding of knowledge collaboration through informal (personal) networks could help organisations leverage this potential knowledge resource to improve performance and creativity.

This paper explores managerial perceptions about informal networks and knowledge sharing in the personal knowledge networks of managers. The research questions investigated in this study are: 1) Do managers realise personal knowledge networks as channels of useful knowledge transfer; and 2) What do managers think is the importance of informal knowledge collaboration (which is arranged and managed through personal networks) in knowledge creation and work performance? Determining managers' beliefs and perceptions about the role and significance of informal networks is crucial because: a) Managers are the key individuals in organisations to promote organisational learning and performance; b) In order to implement any KM initiative to capture and utilise the knowledge of informal networks, it is imperative that managers should have a clear understanding of the importance of these networks in individual learning and organisational performance.

The remainder of this paper is structured as follows. The next section presents a review of the literature on knowledge sharing through social networking. Section III presents hypotheses that have been tested to answer the research

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questions. Section IV describes the research method and sample characteristics. Analyses and results are presented in section V. The last part provides conclusion and implications for research and practice.

II. LITERATURE REVIEW

The shift in KM strategy from implementing systems and information repositories towards managing humans and their interactions is due to the emerging clarity of the distinction between information and knowledge. KM scholars are of the view that what can be easily codified, stored, and transferred is information or explicit knowledge [1], [3]. Tacit knowledge, on the other hand, is composed of insights or experiences of an individual that are hard to articulate and transfer [30]. This distinction between information and knowledge has implications on the ways to manage information and knowledge. For instance, information can be codified and stored in databases. It can be easily communicated through impersonal means such as emails, documents, and the internet [1], [41]. On the other hand, knowledge is retained in the minds of human and revealed through application [15]. Effective transfer of (tacit) knowledge requires closer interaction between people who hold specialised knowledge to resolve complex problems [21], [24], [39]. This approach of transferring tacit knowledge suggests the role of interpersonal ties and frequent interactions among individuals.

Grant's [20] knowledge-based theory of the firm suggests that a firm exists to integrate specialized knowledge of its employees. This theory highlights the need to integrate knowledge that resides among individuals and/or is created by their activities. Nonetheless, the earlier efforts of KM focused on the development of systems and information repositories to capture and share knowledge of employees [1]. More recent trends in KM specify that, other than implementing systems and information repositories, the foremost task is to manage knowledge workers and their interactions that are meant for knowledge sharing [15], [24], [25]. The social networking research highlights that informal interactions and personal connections between knowledge workers provide an efficient means to create and transfer knowledge [18], [27], [28]. These studies have found critical disconnections between knowledge sources arranged and provided by the organisations and the actual knowledge acquisition/transfer channels used by the employees [8], [9], [10].

Since individuals are the primary repositories of tacit knowledge, face-to-face interaction and practical experiences are more suitable for sharing tacit knowledge [21]. Addressing the needs of direct and frequent interactions among individuals to share tacit knowledge; organisations provide various mechanisms such as project teams, formal meetings, matrix structures, joint workshops, and so on and so forth to foster knowledge collaboration among employees. These formal mechanisms connect individuals into groups and structures and provide an environment where they interact and

share knowledge with each other [26]. However, the questions exist: Are these structures provide sufficient environment to build strong interpersonal ties and useful knowledge collaboration among individuals? Secondly, to what extent these structures fulfill the knowledge requirement of individuals to solve complex (i.e. non-routine) problems at work.

Formal structures do facilitate information and knowledge collaboration among individuals, but the decisions to share what, with whom, when, and to what extent are made by the individuals [4], [23], [40]. Studies on social networking analysis find that the patterns of communication and collaboration in informal networks are significantly different as they used to be in the formal organizations prescribed communication structures. Some researchers have argued that formal organizational structures fail to truly reflect the true nature of information sharing relationships among employees; and hence proved ineffective in inculcating useful knowledge collaboration among employees [8], [22]. Moreover, in the fast changing world it is not possible for an individual to retain all up-to-date and relevant knowledge to perform critical knowledge tasks. Organisational members not only rely on internal sources of knowledge but also maintain external connections to seek new ideas and innovative solutions [13], [37].

Organisations provide KM systems and collaboration tools to share and integrate the knowledge possessed by employees [1]. However, the key observations arising from existing studies of informal knowledge sharing highlight that firms and managers need to diagnose the true picture of knowledge collaborations that happen through informal interactions and personal networking of employees. Although, KM researchers emphasize the importance of strong interpersonal ties to share useful knowledge [15], [19], little is talked about how professionals utilise their informal (personal) connections into useful knowledge collaboration. There are studies to indicate that external links of knowledge workers provide non-redundant information (which is not currently available within the organization) and specialised know-how to resolve complex work problems [36], [37], [38]. Yet, research is scant to know what managers think of information knowledge collaboration that happens across organisational boundaries and formal structures.

Empirical evidence suggests that personal connections and informal interaction between knowledge workers are a crucial source for knowledge creation and dissemination [18], [34], [36], [38]. Nonetheless, little is known about managerial understanding of the knowledge flows that happen through personal networking and informal knowledge collaboration among employees. Since managers are the key personnel to implement any new initiatives and improvements in an organisation, it is crucial to know their perceptions about informal knowledge collaboration that happen within and outside of the organisation by means of employees' personal networking. A better insight of the managerial perceptions could help to understand the knowledge sharing culture of the

organisation and thus facilitate implementation of KM initiatives to enable and support useful knowledge collaboration among employees.

III. HYPOTHESES

Knowledge sharing studies suggest that knowledge workers develop informal knowledge collaboration regardless of the organizational boundaries and formal structures. However, perception exists that managers do not realise the true potential of informal knowledge sharing that occur by means of personal networking [9], [22]. The question arises: Do managers share work-specific knowledge with their personal (informal) contacts? We investigate if managers share knowledge with informal contacts to perform knowledge tasks; they deem to realise them as useful channels of sharing work-specific knowledge. Moreover, while sharing work-specific knowledge to perform tasks, do managers stick to their informal contacts who are inside their work organisation. This has important implications to their concerns for the knowledge that is proprietary or firm-specific. Our hypotheses state:

Hypothesis 1: Managers share work-specific knowledge with their informal contacts who work in the same organisation as they do.

Hypothesis 2: Managers share work-specific knowledge with their informal contacts who do not work in the same organisation as they do.

There may be several reasons for sharing knowledge between managers who work for different companies. For instance, managers facing similar market conditions share knowledge and learn from each other's experience [32]. Here we talk about knowledge sharing that help managers to perform certain knowledge tasks that are associated with their jobs. These tasks may include development of new process or product, routine operational management, customer support, and so on. Although there is a growing realization that personal contacts are important sources of information and knowledge transfer, how managers value these informal networks in individual learning and organisational performance. Prior research indicates that many managers fail to realise the value of informal knowledge sharing networks to create value for their firms. They may be skeptical about the contribution of such networks in improving performance and creativity of their organisations. Our next hypotheses develop on what managers think about the significance of knowledge sharing by means of personal networking and whether they realise the potential of informal personal networks in problem solving and work performance.

Hypothesis 3: Knowledge sharing through personal networking enhances knowledge of managers to perform organisational tasks

Hypothesis 4: Knowledge sharing through personal networking improves work performance.

IV. RESEARCH DESIGN

This study population consisted of managers who work in New Zealand companies. An online questionnaire was sent to 500 managers; who were randomly selected from the Kompas database. Kompas provide listing of NZ companies along with contact details of the key management personnel. A total of 161 usable responses were obtained for a response rate of 32.2 per cent. Respondents of the survey belong to diverse age groups, qualifications, industry types, and professions. Table I shows the demographics of the respondents.

TABLE I
DEMOGRAPHICS (NUMBER OF SUBJECTS N=161)

	Number	Frequency
Male	127	79%
Female	34	21%
Age		
Under 30 years	4	3%
30-39 years	20	12%
40-49 years	52	32%
Over 50 years	84	52%
Education		
Vocational Certificates/Diplomas	33	21%
Bachelor's degree	50	31%
Postgrad diplomas	31	19%
Masters degree	33	21%
Doctoral degree	12	7%
Industry Sector		
Manufacturing & Construction	21	12%
Telecommunications	20	12%
Financial Services	8	5%
Professional, Scientific, and Technical Services	64	40%
Education and Training	12	7%
Government Services	30	18%
Others	5	3%
Type of Profession		
CEOs and General Managers	62	41%
Business Admin Managers	21	14%
ICT Managers	15	10%
Information Managers	18	12%
Sales and Marketing Managers	22	15%
Project Managers	8	5%
Human Resources Managers	6	4%
Others	4	3%

The survey questionnaire asked managers about their personal knowledge sharing contacts and informal knowledge

sharing practices within and outside of their work organizations by means of their informal contacts. The survey asked about the effect of such knowledge sharing practices on their problem solving abilities and work outcomes. Table II provides the definitions of the various constructs used in this study to measure perceptions of managers about informal knowledge sharing practices. These constructs were mainly derived from previous studies (as shown in Table II) and customized according to the need of this study. All constructs were measured using multiple items on a five-point Likert-type scale (ranging from strongly disagree 1 to strongly agree 5).

TABLE II
DEFINITIONS OF CONSTRUCTS

Construct	Definition	Source
Knowledge	Knowledge is a process of applying know-how and expertise to create value	[1]
Knowledge worker	A person who performs tasks through application of knowledge is called as knowledge worker	[15]
Informal contact	An informal contact is a person who works in similar profession or knowledge domain with whom the knowledge worker's current relationship is primarily a social relationship	[10]
Informal knowledge sharing	Informal knowledge sharing is the sharing of work-specific knowledge by means of informal contacts	[10]

V. ANALYSIS AND DISCUSSION OF RESULTS

The important issue for this paper is to develop know-how about managerial understanding about informal (personal) networks and to understand whether they realise the potential of informal knowledge collaboration that is arranged and managed through personal connections. Results shown in Table III and Table IV give full support to our first two hypotheses. These results indicate that managers are well aware of the true potential and utility of informal knowledge collaboration that happens through personal networking. Managers also develop and maintain informal contacts to share knowledge within and outside of their work organisation. Our findings are consistent with other studies that observed boundary spanning communication of employees in specific industry and technology cluster [14], [35], [36]. These prior studies found that technical employees used to share work specific knowledge with their personal contacts who work for other organisations. However, these studies that found informal information trading among individuals in specific industries or technology clusters. This study explored informal knowledge sharing practices among managers who work in a variety of industry sectors and

professions. The high-level and broader view about informal knowledge collaboration suggests that management thinking is alike across industries and professions.

TABLE III
KNOWLEDGE SHARING CONTACTS OF MANAGERS

Question	Frequency	%age
Do you have informal contact with at least one person within your organization who you share work-related knowledge?	142 (Yes) 18 (No)	89% 11%
Do you have informal contact with at least one person who does not work for the same organization as you and who you share work-related knowledge?	147 (Yes) 14 (No)	91% 9%

Previous studies indicate that managers are not good in comprehending and exploiting the potential of informal knowledge sharing by means of employees' personal networking [5], [9], [22]. Evidence from this study contradicts this observation. Results shown in Table V indicate that managers are fully aware of the potential of informal knowledge sharing as they used to share work-specific knowledge by their personal contacts both within and across organisational boundaries. Strong correlation between knowledge sharing with informal contacts (within and outside organisation) and performance as shown in Table VI provide good support to our hypotheses 3 and 4. These results indicate that informal networks are useful resources of knowledge and organisations must explore and exploit them to improve productivity and performance.

Managers may be skeptical about the usefulness of informal networks and knowledge sharing practices by means of personal networking. Managers also view organisational knowledge as property owned by organizations and concerned about its leakage to other firms; especially competitors. Informal information trading research indicates that employees exchange proprietary data and know-how under specific rules and for the benefit of their firms [4], [36]. The findings of this study also confirm the notion that managers believe that informal knowledge collaboration foster innovation and lead to the development of intellectual capital for a firm. These evidences suggest that there is no difference in the perceptions of managers and employees regarding the usefulness of informal knowledge collaboration. Nonetheless, knowledge collaboration across organisational boundaries is a complicated issue. Further research may explore organisational barriers that inhibit informal knowledge collaboration among employees of different firms.

TABLE IV
INFORMAL KNOWLEDGE COLLABORATION

Question	Mean	Std. Dev.
To help complete work assignments I coordinate advice from my PKN members who are within my organization	3.88	.993
To help complete work assignments I coordinate advice from my PKN members who do not work for the same organization as me	3.34	.959

The means are measured on a 5-point Likert scale: 1="strongly disagree", 2="disagree", 3="neutral", 4="agree", 5="strongly agree".

TABLE V
PERFORMANCE OF INDIVIDUALS
COMPOSITE RELIABILITY OF THE SCALE (ALPHA = .88)

Question	Mean	Std. Dev.
Knowledge sharing with members of my PKN will increase my problem-solving capability	4.20	.663
Knowledge sharing with members of my PKN will help me confirm my own understanding of my work-related topics	4.12	.626
Knowledge sharing with members of my PKN will help me in my job and improve my performance	4.12	.671

PKN = Personal Knowledge Network. The means are measured on a 5-point Likert scale: 1="strongly disagree", 2="disagree", 3="neutral", 4="agree", 5="strongly agree".

TABLE VI
CORRELATION BETWEEN KNOWLEDGE SHARING AND PERFORMANCE

	Variable	1	2	3	4	5
1	KSIN	1.00	.45**	.29**	.36**	.43**
2	KSOUT	.45**	1.00	.27**	.31**	.25**
3	PERF1	.29**	.27**	1.00	.72**	.67**
4	PERF2	.36**	.31**	.72**	1.00	.76**
5	PERF3	.43**	.25**	.67**	.76**	1.00

KSIN = Knowledge sharing with internal contact, KSOUT= Knowledge sharing with external contact, PERF = Performance of Individuals

This study highlights the issue of knowledge collaboration that happens outside formal structures and organisational boundaries by means of personal connection. It addresses

managerial concerns about the effectiveness of such knowledge sharing practices in individual learning and organisational performance. The results provide evidence that managers do understand and realise the potential of informal networking and knowledge sharing through personal contacts. Managers appreciate that informal networks provide access to specialised knowledge that can help to resolve complex problems at work. Managers may have concerns on knowledge sharing through informal contacts, particularly, when it comes to the value of information/know-how being shared by employees. Although, Schrader [36] study indicate that employees actually trade information/know-how with colleagues in the best interest of their firms. Managers, however, suspect that employees may not fully understand the true value of the information that they share with outside parties. Research indicates that people are concerned with the misuse of the information they share [33]. Being prominent members of the organisation, managers may feel more responsibility to protect organisational information and knowledge assets. A further detailed study to investigate managerial skepticism on informal knowledge sharing (that happen across boundaries and structures) could reveal many interesting findings. This is also a key issue for organizations who want to manage informal knowledge sharing activities of employees that span organisational boundaries and formal structures.

VI. CONCLUSION AND IMPLICATIONS

Knowledge tasks require collaboration with other knowledge experts as the knowledge necessary to resolve complex problems may not be available through bodies of information or explicit knowledge. Knowledge which by nature is tacit is stored in the minds of individuals [21]. Though organizations provide a variety of mechanisms to promote workplace learning through collaboration; employees may not share useful knowledge through organizational mechanisms and formal structures. Managers, as key individuals in an organisation, need to be aware of the internal and external sources of knowledge that can be utilised to resolve complex problems [37]. This would also help in implementing any KM initiative to improve the productivity and performance of the organisation.

This study has examined what managers think about informal networking and knowledge sharing through personal networking. The results provide evidence that managers realise the importance and potential of informal networks in enhancing individuals' capability and the firm's performance and creativity. The evidence of this study suggests that managers develop and maintain their own knowledge sharing networks for problem solving and improving work outcomes. People connected across groups and organizations are more familiar with alternative ways of thinking and can play a central role in effective learning and the generation of new ideas [6]. However, in order to implement any KM initiative to capture and utilise the knowledge of informal networks

(maintained by employees through personal contacts), managers should have developed an understanding of the true potential of these networks.

This study draws implications that the perceptions developed about managers with regard to their understanding of informal knowledge sharing through personal networks is not completely valid. Managers do understand the potential of personal (informal) networks in problem solving and work performance. The study is conducted with a limited sample in one country context. Hence, generalisability of the study can be questioned to varying contexts and cultures. The study findings could have been verified with a larger sample and different cultural contexts. There may be many situations where managers do not encourage staff to share knowledge across organisational boundaries. Organisational constraints that may impact the willingness of managers prohibiting knowledge collaboration outside organisational boundaries and prescribed channels may also be studied. Other factors such as manager personality traits and task structure are also important to determine the context of informal knowledge sharing.

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