

**KNOWLEDGE SHARING PRACTICES AND TOOL IN A LOGISTIC
COMPANY**

NOOR IRLIANA BINTI MOHD RAHIM

UNIVERSITI TEKNOLOGI MALAYSIA

KNOWLEDGE SHARING PRACTICES AND TOOL IN A LOGISTIC
COMPANY

NOOR IRLIANA BINTI MOHD RAHIM

A thesis submitted in partial fulfillment of the
requirement for the award of the degree of
Master of Science (Computer Science)

Faculty of Computing
Universiti Teknologi Malaysia

APRIL 2014

Dedicated, in thankful appreciation for support, encouragement and understanding to my beloved mother, my beloved father, my beloved brother and sister, my beloved husband and beloved friend.

ACKNOWLEDGEMENT

In the name of Allah, the most gracious and the most merciful. Alhamdulillah, thanks to the Almighty for blessing me with giving me the idea and blessing me with strength and courage to complete this thesis in order to pass this course to successfully get a Master of Science in Computer Science of Universiti Teknologi Malaysia.

First of all, I would like to take this opportunity to dedicate my appreciation and special thanks to all people who involved in finishing this study especially to my dedicated supervisor, Dr. Noorminshah A.Iahad, and co-supervisor AP Dr. Azizah Abd. Rahman who had sacrificed their precious time and effort in helping me to complete this research. Again, millions of thanks to my supervisors for their encouragement, guidance, tolerance, detailed review, constructive criticism and excellent advice during the preparation of this thesis.

Very special thanks to my family, especially my parent, siblings and husband for their moral support. Other than that, thanks to all my fellow friends and research team who assist, giving suggestion, and support me in finishing this research.

For those who not stated here, lots of thanks and appreciation for helping, supporting, and friendship. Hopefully, Allah S.W.T blesses all of them for their valuable kindness and support. Thank you.

ABSTRACT

On a global basis, organization recognizes the importance of knowledge sharing (KS) as a means to gain or sustain the knowledge in individual thoughts. To sustain and gain knowledge, the individual has to know, adapt and share it with others. In the past, there was a knowledge gap that happens among the community in organizations. This issue arises due to a few factors such as insufficient information and knowledge, no communication, not enough expertise to supply important knowledge and no suitable platform or tool to support the knowledge gap problem. Similar to Tiong Nam Logistic Group (TNLG) in this research study, these problems happened due to lack of specific tools that can capture and share all the knowledge especially in solving daily and recurring issues. TNLG employees do not know the specific knowledge that they have and they do not know which knowledge that may be important for them to share with their colleagues. The main aim of this research is to develop a KS tool for the purpose of developing knowledge workers. The KS tool is a proof of the concept of the KS structure that has been proposed by this research. This study applies the single case study approach using survey and interview method for collecting data. The data collection aims to identify the group of knowledge workers involved, to identify and structure the knowledge for TNLG which formed the KS tool for TNLG. Social Network Analysis and four criteria of knowledge worker have been used to evaluate the KS tool to confirm the development of knowledge workers. From the usage of the KS tool in TNLG, researcher found that the knowledge workers are able to share their knowledge with the right person at the right time. The KS tool enables knowledge sharing among TNLG employees which is hoped to lead towards the development of successful knowledge workers which are able to adapt a better KS practices in the future.

ABSTRAK

Pada peringkat global, organisasi telah menyadari akan kepentingan perkongsian pengetahuan merupakan salah satu cara untuk menimba pengetahuan dalam fikiran individu. Untuk menimba ilmu, individu itu perlu tahu, menyesuaikan diri dan berkongsi pengetahuan dengan yang lain. Pada masa lalu, masalah ini telah berlaku di Tiong Nam Kumpulan Logistik (TNLG). Permasalahan utama yang berlaku adalah organisasi tersebut tidak mempunyai alatan tertentu yang boleh membantu komuniti dalam berkongsi segala ilmu terutama apabila ia melibatkan masalah harian dan juga berulang dan hal ini akan menghadkan perkongsian pengetahuan di kalangan pekerja. Komuniti di TNLG tidak mempunyai kemahiran untuk mengetahui jenis-jenis ilmu yang diperlukan untuk kegunaan di masa kini dan juga masa hadapan. Mereka juga tidak tahu pengetahuan yang mungkin penting bagi mereka untuk dikongsi dengan rakan-rakan. Tujuan utama kajian ini adalah untuk membangunkan satu alat perkongsian pengetahuan yang menyokong persekitaran kerjasama bagi tujuan membangunkan pekerja berpengetahuan. Alatan ini adalah bukti konsep perkongsian struktur pengetahuan yang telah dicadangkan oleh kajian ini. Kaedah kajiselidik dan temubual telah digunakan untuk mengumpul data bagi mengenalpasti kumpulan pekerja berpengetahuan yang terlibat dan juga untuk mengenalpasti dan menyusun pengetahuan untuk TNLG. Analisis Rangkaian Sosial dan empat criteria pekerja berpengetahuan telah digunakan untuk menilai alatan untuk perkongsian pengetahuan di TNLG bagi mengesahkan pembangunan pekerja berpengetahuan. Dari penggunaan alatan ini di dalam TNLG, penyelidik mendapati bahawa kumpulan pekerja berpengetahuan dapat berkongsi pengetahuan mereka dengan orang yang tepat pada masa yang tepat. Kesimpulannya, alatan perkongsian pengetahuan yang mampu memenuhi manfaat dan keperluan permintaan organisasi logistik akan menyumbang kepada pelbagai faedah. Ia termasuklah mempunyai persekitaran yang baik bagi mempraktikkan perkongsian pengetahuan dan juga peningkatan keterampilan komunikasi yang boleh melancarkan lagi perkongsian pengetahuan dikalangan rakan sekerja, melahirkan lebih ramai pakar dengan berkongsi pengetahuan secara berterusan dan sebagainya. Kebaikan ini boleh membawa kepada pengembangan pekerja berpengetahuan yang sukses dan boleh mempraktikkan perkongsian pengetahuan yang lebih baik di masa hadapan.

TABLE OF CONTENTS

CHAPTER	TITLE	PAGE
	DECLARATION	ii
	DEDICATION	iii
	ACKNOWLEDGEMENT	iv
	ABSTRACT	v
	ABSTRAK	vi
	TABLE OF CONTENTS	vii
	LIST OF TABLES	xi
	LIST OF FIGURES	xii
	LIST OF ABBREVIATIONS	xiv
	LIST OF APPENDICES	xv
1	INTRODUCTION	2
	1.1 Introduction	2
	1.2 Background of Problem	3
	1.3 Statement of Problem	5
	1.4 Project objectives	6
	1.5 Scope and Limitations of the Study	6
	1.6 Chapter Summary	7
2	LITERATURE REVIEW	8
	2.1 Literature Review Overview	8
	2.2 Introduction	9
	2.3 Knowledge Sharing in Knowledge	9

	Management Life Cycle (KMLC)	
2.4	Knowledge Sharing Strategies	11
2.5	Knowledge Sharing tools and collaboration	13
2.6	Knowledge Worker	17
2.6.1	Method of Knowledge Worker Measurement	17
2.6.2	Knowledge Worker Productivity: Issues and Measurement	19
2.7	Knowledge Structuring	20
2.7.1	Method of Knowledge Structure	21
2.8	Knowledge sharing framework in logistic company	25
2.9	Knowledge sharing in logistic company	29
2.10	Measuring Knowledge Sharing Network Using Social Network Analysis (SNA)	32
2.10.1	Social Network Analysis (SNA)	32
2.10.2	Method of Collecting Data for SNA	33
2.10.3	Case Study of SNA for Portuguese software company	34
2.11	Discussion	37
2.12	Chapter Summary	38
3	METHODOLOGY	39
3.1	Introduction	39
3.2	Case study	39
3.3	Knowledge sharing in TNLG	40
3.4	Research Methodology	41
3.4.1	Initial work	46
3.4.2	Framework development	47
3.4.2.1	Identify the knowledge workers	48
3.4.2.2	Identify the knowledge requirement	49
3.4.2.3	Knowledge structuring	50
3.4.3	KS tool development	50

	3.4.4	KS tool verification towards the development of knowledge worker	51
	3.5	Chapter Summary	54
4		THE DEVELOPMENT OF KS TOOL	55
	4.1	Introduction	55
	4.2	Knowledge sharing practices in TNLG	56
	4.2.1	Identify the knowledge requirement	56
	4.2.2	Knowledge structure	59
	4.3	Knowledge sharing tool design and development	61
	4.3.1	Development of KS tool	61
	4.3.2	System interface	68
	4.3.3	Module description	69
	4.4	Chapter Summary	77
5		ANALYSIS OF RESULT	78
	5.1	Introduction	78
	5.2	Data Analysis from KSN through SNA	79
	5.2.1	Knowledge sharing in KS portal	84
	5.3	The Measurement of Knowledge Worker Characteristic	86
	5.4	The relationship between KSN and Knowledge Worker Characteristic	92
	5.5	The Hypothesis of Correlation between KSN and Knowledge Worker Characteristic	95
	5.6	Reflection on the Usage of KS Portal	98
	5.7	Chapter Summary	99
6		CONCLUSION	100
	6.1	Introduction	100
	6.2	Research Achievements	100

6.3	Research Contribution	102
6.4	Limitation of Study	103
6.5	Future research	104
6.6	Implication of Research	105
	REFERENCES	106
	APPENDICES A-D	110- 121

LIST OF TABLES

TABLE NO	TITLE	PAGE
2.1	KS tools used for collaboration purpose	15
2.2	Method of structuring knowledge	22
2.3	Summary of knowledge sharing definition	33
3.1	Research operational framework	44
4.1	List of Knowledge Needs by Knowledge workers of Warehouse, HR and Operation	57
4.2	List of Knowledge Needs by group of IT	59
4.3	Module description of KS portal	67
5.1	The fraction of nodes by each department	80
5.2	The contribution index for collaborators from KW	82
5.3	Table of knowledge sharing among five highest KW	84
5.4	Table of mean score from Knowledge Worker questionnaire	87
5.5	Table of score for character 1 from Knowledge Worker questionnaire	88
5.6	Table of mean score of character 2 from Knowledge Worker questionnaire	89
5.7	Table of mean score of character 3 from Knowledge Worker questionnaire	89
5.8	Table of mean score of character 4 from Knowledge Worker questionnaire	91
5.9	Table of contribution index and measurement of KW	93
5.10	Table of Correlation between KW characteristic and KSN score	96
5.11	Decision Matrix of Correlation between KSN and KW Characteristic	97

LIST OF FIGURES

FIGURE NO	TITLE	PAGE
2.1	Literature review overview	8
2.2	Knowledge Management Life Cycle	10
2.3	Structuring knowledge fragments	23
2.4	Knowledge entry map of Centric	24
2.5	Knowledge structuring by using hierarchical method	25
2.6	Framework of communication between stakeholders	26
2.7	Development of framework model for logistic KS tool	28
2.8	Graphic representation of Organisational Knowledge Sharing Network in Lisbon	35
2.9	Code and Performance Score of central nodes that do not possess management functions	36
3.1	Research design	42
4.1	The frequency analysis of knowledge requirement for Warehouse, HR and Operation	58
4.2	TNLG hierarchical knowledge structure	60
4.3	Use case diagram of knowledge sharing portal for TNLG	63
4.4	Class diagram of knowledge sharing portal for TNLG	64
4.5	The system modules of KS tool for TNLG	65
4.6	Flow chart of user login	68
4.7	Main menu of KS portal	69
4.8	The module of “Report MOS bugs”	70

4.9	The module of “Create new topic”	71
4.10	The module of “View topic”	71
4.11	The module of “Upload and download”	72
4.12	The module of “Create new requirement”	73
4.13	The module of “Check status”	73
4.14	The module of “Check status”	74
4.15	The module of “View MOS report”	75
4.16	The module of “Feedback about our KS portal”	76

LIST OF ABBREVIATIONS

KS	-	Knowledge Sharing
OL	-	Organizational Learning
OM	-	Organizational Memory
KM	-	Knowledge Management
APQC	-	American Productivity and Quality Center
TNLG	-	Tiong Nam Logistic Group
KEM	-	Knowledge Entry Map
KW	-	Knowledge Worker
ONA	-	Ontology-Based Network Analysis
SNA	-	Social Network Analysis
MOS	-	Mento Operation System
HOD	-	Head of Department
IT	-	Information Technology
HR	-	Human Resource
FG	-	Focus Group
KSN	-	Knowledge sharing network

LIST OF APPENDICES

APPENDIX	TITLE	PAGE
A	Questionnaire for Knowledge Sharing	105
B	Questionnaire for IT Group	111
C	Pattern answer of questionnaire in Appendix D	112
D	Knowledge worker questionnaire	113

CHAPTER 1

INTRODUCTION

1.1 Introduction

Knowledge sharing (KS) has become an important activity in organizations. In recent years, there is more discussion of the logistical planning and the possibility of using knowledge in logistic area. The KS has been applied in logistics area only in small scale. In year 2002, Baumgarten and Thoms has identified whether the KS in logistic area champions (with supply chain networks as the special focus on those companies who are involved), they also have to determine challenges while applying KS in daily logistic business. Besides, the KS in the logistic area is very important since it involves many stakeholders and they do not know how to share and transfer knowledge to others in a proper way. Consequently, it will affect the knowledge sharing practices in the organization and it may impact the productivity of the staff's daily job.

The KS has been adapted in many of logistic companies in Malaysia. There are few giant logistic companies which implement KS in their daily tasks such as Schenker, Green Peninsular and many more. They had implemented the KS practices few years ago by using existing tools and methods such as phone, discussion and small training attended by small group of knowledge receiver. It is important to have a good knowledge repository system as for now and future so that all knowledge are well captured and easy to retrieve in near future. A knowledge gap normally happened to those companies who do not possess enough knowledge repositories and knowledge resources. The resource from the right person is important to ensure the knowledge gap between employees is successfully filled. Same goes to the

environment in Logistics Company, the knowledge gap normally happened due to a few factors. It does include not enough knowledge resource, lack of good interaction to transfer any knowledge among employees, lack of awareness on the knowledge demand in company, insufficient tools of transferring and receiving the knowledge and improper knowledge structure. The knowledge structure is another important factor of the knowledge gap issue. When the organization is having a good knowledge structuring, they can obviously see the knowledge demand among them. A good knowledge structure can help the company to understand more on their needs and requirement. Furthermore, according to the previous research, there is no proposal of research for studying the framework which supports KS. Hence, the knowledge of studying the available framework for KS is limited and hard to be retrieved.

1.2 Background of problem

There are several problems faced by many of logistic company while conducting the KS practices. It includes lack of coordination; experience in managing group to implement KS, lack of tools and lack of exposure to the behavior of KS in the employee's daily job which will conduct to the failure of getting any required knowledge needed. Beside of that, communication factor also plays an important role towards the KS practices in logistic companies. When the company is having a good tool to let them communicate each other, the KS practices will be easier to be implemented. Most of the problems faced by many logistic companies are similar to this case study. A case study of Tiong Nam Logistic Group (TNLG) has been chosen in this research area. This is because there are many problems experienced by this company in order to be implemented the KS practices. It includes:

- (i) Lack of coordination experience. Employees in logistic company are having problem in coordinating and disseminating their knowledge to others. This issue is caused by lack of knowledge sharing exposure to each of the employees.

- (ii) Communication experience. No communication exposure among the employees in logistic company.
- (iii) Analyzing required knowledge. Basically the employee in TNLG is not aware on the knowledge requirement that they currently need for supporting their existing knowledge. They prefer to use existing knowledge. From there, no knowledge improvement will be developed among the employees.

The major problem was identified by researcher while studying the KS implementation in TNLG is:

- (i) insufficiency of details on knowledge requirements,
- (ii) time restrictions,
- (iii) insufficient of knowledge structuring,
- (iv) poor presentation of knowledge that needs to be shared,
- (v) no suitable platform and guides for knowledge sharing practices
- (vi) methodical misconception of expressing knowledge sharing towards the organization.
- (vii) problem in gathering all types of knowledge since the logistic area involves many directly or indirectly stakeholders. These stakeholders are holding their own knowledge and do not know how to acknowledge others regarding explicit and most importantly, tacit knowledge that they have.
- (viii) do not have any specific tools that can capture and share all the knowledge.

The aforementioned problems have led to the failure of developing KS practices in the company. This is because the knowledge which moves between members is delayed and distorted. It occurs because the complete information is not shared between the members in the network.

Besides, the management itself is having problem in measuring the success of knowledge worker. KS is important in TNLG is because it includes important stakeholders, vendors, supply chain and the knowledge needed to be shared among them for current and future usage. The knowledge must always move between employees in TNLG. A complete knowledge and important information need to be shared and must always flow in order to have a constant KS practice for the development of knowledge workers in the future.

If the KS practice was implemented to the right person at the right time, it will increase the motivation of each person since one is able to acquire more knowledge and more tools which can be used for KS practice purpose. From there, employees are able to use suitable tool for communicating to each others. Thus, this research has been conducted to provide a solution to ensure employees are able to adapt the KS practices among colleagues by using a right tool. By that, it is also to enhance ways of communication between all employees to become successful knowledge workers.

1.3 Statement of the problem

After going through current problems in TNLG, one main question can be interpreted which is, “How to develop a KS framework for knowledge workers in a logistic company?”The initial research of existing knowledge sharing practices is very significant towards the development of KS tool. The current problem in TNLG has been discussed earlier in the problem background. Thus, a knowledge sharing is important to be implemented in this company for knowledge and skills enhancement and the effectiveness of practicing knowledge sharing in a proper way. For achieving the main question, the researcher has studied and developed a suitable KS tool which supports the KS practices in TNLG.

1.4 Project objectives

There are a few objectives that are determined in order to solve this knowledge sharing problem. The objectives of this project are:

- (i) To identify knowledge sharing practices in a logistic company
- (ii) To design a tool that can facilitate knowledge sharing in a logistic company towards the development of knowledge workers

1.5 Scope and Limitations of the Study

In this project, there are few scope and limitation that are being followed in order to ensure that the objectives of the project can be achieved. The scopes in line with this project are:

- (i) TNLG in Johor Bahru branch only.
- (ii) A single case study is used in this research study.
- (iii) Survey has been used as one of the research methods and questionnaire as the instruments.
- (iv) Stratified sampling method is used for choosing respondents for questionnaire.

TNLG is chosen as a single case study because this research is based on logistic company. Researcher found that there are many advantages of using logistic company as case study since it can help them to have a good KS practices. Furthermore, TNLG is one of the biggest logistic companies in Malaysia. With branches set up in entire Malaysia, the KS practices can be used not only within one branch, but can be expandable to other branch as well. However, for the constraint of

this research, the research aims will be related to TNLG in Johor branch only.

1.6 Chapter Summary

Since all work need to be completed effectively in logistic sector, knowledge sharing is very crucial in order to manage work efficiently. Knowledge sharing can play an important role in term of real practice since the need to identify what knowledge it has, where it is, how it is being used and how the knowledge can be improved. Existing research regarding knowledge sharing will be explored to determine the systematic steps that can be applied when using the knowledge sharing approach in real environment. Appropriate questions will be created based on the core processes to identify required, available and future knowledge in organizations. From the questionnaire, researcher are able to study what is the current problem happened in the organization and from there, researcher are able to identify which knowledge are required to be shared among colleagues in the organization

REFERENCES

- Borgatti, S.P., Everett, M.G. and Freeman, L.C. 2002. Ucinet 6 for Windows. Harvard: Analytic Technologies.
- Coleman, D. (1999). Groupware: Collaboration and Knowledge Sharing. In Liebowitz (Ed.), *Knowledge management handbook*. New York: CRC.
- Drucker P.F. (1999) Management Challenges for the 21st Century, Butterworth-Heinemann, Oxford.
- Druker P.F. (1992) Managing for the Future, Butterworth-Heinemann, Oxford.
- Druker P.F. (1995) Managing in a Time of Great Change, Butterworth-Heinemann, Oxford
- Du, R., Ai, S., &Ren, Y. (2007). Relationship between knowledge sharing and performance: a survey in Xi'an, China. *Expert Systems with Applications*, 32, 38-46.
- Elizabeth B.-N. Sanders, Eva Brandt and Thomas Binder (2010) A Framework for Organizing the Tools and Techniques of Participatory Design.
- John P. Boyd, William J. Fitzgerald, and Robert J. Beck. Computing Core/Periphery Structures and Permutation Tests for Social Relations Data (September 28, 2004). Institute for Mathematical Behavioral Sciences. Paper 16.
- Muller, M.J. (2007) Participatory design: The third space in HCI (revised). In J. Jacko and A. Sears (eds.), *Handbook of HCI* 2nd Edition. Mahway NJ USA: Erlbaum.
- Naomi Stanford (2011). Knowledge Worker Productivity: challenges, issues, solutions.
- Neumann G. (2005): Knowledge Sharing in a Logistic Education Network: Challenges, IT Concepts, Operational Model. Proceedings of I-KNOW '05Graz, Austria.
- Neumann G., Tome E. (2005): Knowledge Management and Logistics: An Empirical Evaluation. *Proceedings of I-KNOW '05Graz*, Austria.

- Small, C. T., & Sage, A. P. (2005/2006). Knowledge management and knowledge sharing: a review. *Information Knowledge Systems Management*, 5, 153-169.
- Thomas W. Valente, Robert K. Foreman. Integration and Radiality: Measuring the Extent of an Individual's Connectedness And Reachability in a Network. *Social Networks* 20 (1998) 89-105.
- Van Duijn, M. A. J., & Vermunt, J. K. (2006). What is special about social network analysis? *Methodology*, 2(1), 2-6.
- W.R King (ed.) (2009), Knowledge Management and Organizational Learning, *Annals of Information Systems* 4.
- Wasserman, S., & Faust, K. (1994). *Social network analysis: Methods and applications*. Cambridge, MA: Cambridge University Press.
- [ELA 2004] European Logistics Association: Draft Version of the Revised ELA Terminology in Logistics (unpublished); ELA, Brussels 2004.
- [North and Hornung 2003] North K; Hornung T.: The Benefits of Knowledge Management –Results of the German Award “Knowledge Manager 2002”; Proceedings of I-KNOW ‘03 – 3rd International Conference on Knowledge Management; Graz (Austria), July 2-4, 2003, 302-310.
- [North, Reinhardt, and Schmidt 2004] North K. Reinhardt, R Schmidt A. - The Benefits of Knowledge Management: Some empirical evidence. Paper presented at the OKLC 2004 Conference in Innsbruck <http://www.ofenhandwerk.com/oklc/Prog12.html#a8>
- [Forzi et al. 2004] Forzi T.; Peters, M.; Winkelmann, K.: “A Framework for the Analysis of Knowledge Management within Distributed Value-Creating Networks”, Proc. I-KNOW '04, J.UCS (Journal of Universal Computer Science), Graz/Austria (2004), 432-439.
- [McDermott, O’Dell 2000] McDermott, R.; O’Dell, C.: “Overcoming the ‘Cultural Barriers’ to Sharing Knowledge”, APQC (American Productivity and Quality Center) (2000).
- Aamodt, & Plaza, E. (1994). Case based reasoning: Foundational issues, methodological variations, and system approaches. *AI Com—Artificial Intelligent Communications*, 7(1), 39–59.

- Davenport, T. H., Jarvenpaa, S. L., & Beers, M. C. (1996). Improving knowledge work processes. *Sloan Management Review*, 37(4), 53–55.
- Hokey, M. E., & Sean, B. (1994). An integrated decision support system for global logistics. *International Journal of Physical Distribution and Logistics Management*, 24(1), 29–40. Bradford.
- Humphries, M. (1999). *Data warehousing: Architecture and implementation*. Upper Saddle River, NJ: Prentice Hall.
- Inmon, W. H. (1992). *Building the data warehouse*. QED Technical Publishing Group.
- Meade, L., & Sarkis, J. (2002). A conceptual model for selecting and evaluating third-party reverse logistics providers. *Supply Chain Management: An International Journal*, 7(5), 283–295.
- Liao, S. H. (2003). Knowledge management technologies and applications literature review from 1995 to 2002. *Expert System with Applications*, 25(2), 155–164.
- Du Wenhong, , et al. Nanning public logistics information platform and key technologies [A], In: *ICTE'2009*, 2009.7, vol (1):538-543
- Mentzer, J.T., Flint, D.J., and Hult, T.M. Logistic Service Quality as a Segment-Customised Process. *Journal of Marketing*, 2001, 64 (4): 82-104.
- Sharma, A., Grewal, D., and Levy, M. The Customer Satisfaction/Logistics Interface. *Journal of Business Logistics*, 1995, 16 (2): 1-22.
- Yu, T., Ellinger, A. E., and Haozhe, C. Third-party Logistics Provider Customer Orientation and Customer Firm Logistics Improvement in China. *International Journal of Physical Distribution & Logistics Management*, 2010, 40 (5): 356-376.
- Mattila, A. S., and Mount, D. J. The Impact of Timeliness on Complaint Satisfaction in the Context of Call-Centers. *Journal of Hospitality and Leisure Marketing*, 2006, 14 (3): 5-16.
- Xu, J. and Cao, Z.P. Logistics Service Quality Analysis Based on Gray Correlation Method. *International Journal of Business and Management*, 2008, 3 (1): 58-61.
- Noy, C. Sampling Knowledge: The Hermeneutics of Snowball Sampling in Qualitative Research. *International Journal of Social Research Methodology*, 2008, 11 (4): 327-344.
- Rahman, S. Quality Management in Logistics Practices: A Comparison Between Manufacturing Companies and Logistics Firms in Australia. *Total Quality Management*, 2008, 19 (5): 535-550.

Kothandaraman, P. and Wilson, D.T. The Future of Competition: Value-Creating Networks.

Industrial Marketing Management, 2000, 30 (4): 379-389.

K. Nock, D. Michel and I. Photos, Single-Case Research Design, 2007.

Yin, Robert K., Case Study Methods, 2004.

Yin, Robert K., The Case Study Anthology, Sage, Thousand Oaks, CA, 2004.