



Program Advisor, Master of Management Sciences (1976-80)  
Program Advisor, Ph.D. in Business Administration/Management Sciences (1975-80)  
Program Advisor, Ph.D. in Operations Research/Health Care Administration (1996-97)

Bell Telephone Regional Communication School, Faculty—Management and Economics Area (Part-time), (Summer, 1966; Spring, 1967), St. Louis. MO

Clemson University, Assistant Professor of Industrial Management (1965-68),  
Clemson, SC

Eastern New Mexico University, Assistant Professor of Economics (1964-65),  
Portales, NM

### **PROFESSIONAL CONSULTATIVE SERVICES AND SEMINARS**

- Beijing Agricultural Engineering University, People's Republic of China (May 16-25, 1991); Conducted a series of seminars for the Faculty of the Division of Systems Engineering. Seminar Topics included Applied Linear Programming, Applied Integer Programming, Goal Programming, and Network Project Models.
- Shenyang Agricultural University, People's Republic of China (May 28-29, 1991); Conducted a seminar in Applied Linear Programming Models for the Faculty of the Division of Systems Engineering.
- University of Southern California Midwest Alumni Club, Regional Director (1982-90).
- Truck Transport, Inc., St. Louis, MO; Helped develop a Goal Programming Model for Truck Terminal Site Location Problems (1981-82).
- St. Louis County Police Department, Clayton, MO; Helped design an Optimal Police Patrol Dispatch Model (1981-82).
- National Center for Drug Analysis, U.S. Food & Drug Administration, St. Louis, MO; Helped develop a PERT Operational Model (1977); and a Goal Programming Model for Human Resources Management (1981).
- D'Arcy-MacManus & Masius, St. Louis, MO; Helped prepare an Optimal Allocation Model for Local Market Advertising Budgets (1976-78).
- Deaconess Hospital, St. Louis, MO; Helped develop Simulation Models for Optimal Facility Utilization (1972, 1976, and 1978).
- Alliance for Regional Community Health, Inc. (ARCH)—a federally funded health-care research organization, Research Consultant (1975-76).
- Missouri CPA Review Courses, Practice Area-Quantitative Methods, St. Louis University (Summers of 1972 and 1973).
- Graduate Seminar in Industrial Administration (for Corporate Executives), Management Science Area, Clemson, SC (Summers of 1965-67).
- Southern Regional Education Board, Atlanta, GA, Economic Counselor (1968).
- The Upper Savannah Economic Development District, Greenwood, SC, Economic Consultant (1968).

- Greenville Hospital Systems, Greenville, SC, Management Consultant (1967-68).

## PROFESSIONAL ACTIVITIES

- *Applications of Management Science*, Editorial Advisory Board Member (2009-12)
- Natural Sciences and Engineering Research Council of Canada, Reviewer (2009-2011)
- *Computers & Operations Research*, Editorial Advisory Board Member (1986-2002); Referee (1983-2011)
- *European Journal of Operational Research*, Referee (2000-2011)
- *International Transactions in Operational Research*, Referee (2000-2005)
- *International Journal of Management Literature*, Editorial Advisory Board Member (2000-2004) ; Referee (2000-2004 )
- *Multicriteria Decision Making*, Referee (1998-2012)
- *Decision Sciences*, Referee (1978-85; 1987-2000)
- *INFOR* (Canadian Journal of Information and Operational Research), Referee (1996-99)
- INFORMS National and International Meetings *Proceedings*, Referee (2000-2003)
- *OMEGA: International Journal of Management Science*, Referee (1995-98)
- *Opsearch* (Journal of the Indian Operational Research Society), Referee (1995-97)
- *Socio-Economic Planning Sciences*, Referee (1987-1990)
- *Project Management*, Referee (1983-85)
- *Management Science*, Referee (1981-83; 1986-91)
- *Annals of Regional Science*, Reviewer (1978-81)
- *Operations Research/Management Science*, Reviewer (1973-76)
- *The Korean Economist*, Consulting Editor (1970-72)
- *The Journal of Developing Areas*, Referee (1968-70)
- Institute for Operations Research and Management Sciences (INFORMS) International Meeting, Multicriteria Decision Making Cluster Chair and Invited Paper Session Chair (2001)
- Institute for Operations Research and Management Sciences National Meeting, Health Care Session Chair (1998); DEA Session Chair (2008)
- Decision Sciences Institute National Meetings, Referee and Linear Programming Session Chair (1990); Referee and Mathematical Programming Invited Paper Session Chair (1992)
- European Operational Research Societies, EURO XX Conference, DEA Session Chair (2001)
- Operational Research Society of America and the Institute of Management Sciences (ORSA/TIMS) Joint National Meetings, Goal Programming Session Chair (1987); Goal Programming Invited Paper Session Chair (1988)
- National Science Foundation, Reviewer--Management Science Area (1983; 1986)
- McGraw-Hill Book Company, Reviewer--Managerial Economics (1967-68); Operations Research Area (1968-71; 1973-81)

- Holden-Day, Inc., Reviewer--Quantitative Analysis Area (1977-81)
- Little Brown & Co., Inc., Reviewer--Operations Management Area (1981; 1982)
- Dryden Press, Reviewer--Management Science Area (1982)
- Duxbury Press--Management Science Area (1980-83)
- American Institute for Decision Sciences (AIDS), Publications Committee Member (1978-81; 1982-84)
- American Institute for Decision Sciences, Editor Selection Committee Member (1981; 1982)
- Midwest AIDS Conference Quantitative Business Analysis Track Chairperson (1981); Operations Research/Management Science Track Chairperson (1983)

## **PROFESSIONAL AND HONORARY MEMBERSHIP**

- American Economic Association
- American Association for the Advancement of Science
- Decision Sciences Institute (formerly American Institute for Decision Sciences)
- Institute for Operations Research and Management Sciences (INFORMS)
- Multicriteria Decision Making Society
- Fulbright Association
- Beta Gamma Sigma--American Honorary Business Fraternity
- Omicron Delta Epsilon--American Honorary Economics Fraternity
- Omega Rho--International Honorary Operations Research Society
- Phi Eta Sigma--American Freshman Honor Society
- American Biographical Institute Board of Governors

## **BIOGRAPHIES**

- *American Men of Science* (1968-69)
- *American Men and Women of Science* (1978)
- *Asia Men & Women of Achievements* (2004)
- *Asia/Pacific Who's Who* (2002-2003; 2004-05; 2006; 2007)
- *Asian Admirable Achievers* (2006)
- *Asian/American Who's Who* (2003-04; 2007)
- *Asian Who in America* (1971)
- *Biography Fame International* (2004)
- *Dictionary of International Biography* (15<sup>th</sup> ed., 1978-79; 23<sup>rd</sup> ed. 1993-94; 27<sup>th</sup> ed. 1999)
- *Directory of Educational Specialists* (1972-73)
- *Directory of Research-on Research* (1976)
- *Index Copernicus International* (2008)
- *International Man of the Year* (1998-99; 1999-2000)
- *International Scholars Directory* (1972)
- *International Who's Who in Community Service* (1978)

- *International Who's Who in Education* (1980)
- *Leading Intellectuals of the World* (2000-01; 2002-03)
- *Marquis Who's Who in America* (63<sup>rd</sup> ed., 2008; 64<sup>th</sup> ed., 2009; 65<sup>th</sup> ed., 2010; 66<sup>th</sup> ed., 2011; 67<sup>th</sup> ed., 2012; 68<sup>th</sup> ed., 2013; 69<sup>th</sup> ed., 2014; 70<sup>th</sup> ed., 2015; 71<sup>st</sup> ed., 2016)
- *Marquis Who's Who in the World* (13<sup>th</sup> ed. 1995; 14<sup>th</sup> ed. 1996; 27<sup>th</sup> ed., 2009; 28<sup>th</sup> ed., 2010; 29<sup>th</sup> ed., 2011; 30<sup>th</sup> ed., 2012; 31<sup>st</sup> ed., 2013; 32<sup>nd</sup> ed., 2014; 33<sup>rd</sup> ed., 2015; 34<sup>th</sup> ed., 2016)
- *Marquis Who's Who in Science and Engineering* (8<sup>th</sup> ed. 2005-06)
- *McGraw-Hill Authors* (1975)
- *Men of Achievements* (6<sup>th</sup> ed., 1979; 7<sup>th</sup> ed., 1980; 16<sup>th</sup> ed. 1993)
- *Men of the Year* (1996)
- *Most Admired Men and Women of the Year* (2<sup>nd</sup> ed. 1995)
- *Notable Americans* (1976-77; 1978-79)
- *Outstanding Intellectuals* (1<sup>st</sup> ed. 2000; 2<sup>nd</sup> ed. 2002)
- *Personalities of America* (1978)
- *Personalities of the West and Midwest* (1979)
- *Stratmore's Who's Who* (1996)
- *2000 Outstanding Intellectuals* (2000)
- *2000 Outstanding Scholars of 21<sup>st</sup> Century* (2002)
- *Who's Who Among Asian Americans* (1995; 1996)
- *Who's Who in America* (12<sup>th</sup> ed. 1994-95)
- *Who's Who in American Education* (4<sup>th</sup> ed., 1993)
- *Who's Who in the Midwest*, 1982 (18<sup>th</sup> ed., 1982-83; 23<sup>rd</sup> ed. 1992-93; 24<sup>th</sup> ed. 1995-96; 25<sup>th</sup> ed. 1996-97)
- *Who's Who in Finance and Business* (2006-07; 37<sup>th</sup> ed., 2009-10)
- *Who's Who in Finance and Industry* (27<sup>th</sup> ed., 1992-93; 28<sup>th</sup> ed., 1993-94; 29<sup>th</sup> ed. 1996-97; 32<sup>nd</sup> ed. 2002; 35<sup>th</sup> ed. 2005)
- *Who's Who in Science and Engineering* (8<sup>th</sup> ed., 2005-06; 9<sup>th</sup> ed., 2006-07)
- *Who's Who in the 21<sup>st</sup> Century* (2002)

## HONORS AND AWARDS

- Life-Long Mentorship Award from PhDs: Stephen A. DeLurgio (1976), Paul J. Kuzdrall (1977), Marc J. Schniederjans (1978), Lawrence Jones (1979), Carol B. Diminnie (1983), David R. Grimmett (1989), Raymond D. Brown (1989), Ramadan Hemaïda (1991), Kevin J. McCarthy (1991), David G. Martin (1991), Deborah K. Radasch (1994), John H. Orange (1995), Chang Won Lee (1997), Peter J. Weigel (2000), and Dean Dixon (2000)--Dated September 24, 2016.
- Established the Nokyoon Kwak Faculty Research Award by the John Cook School of Business, Saint Louis University (May, 2008)
- Participated in the People-to-People Ambassador Programs – South Africa, as an Operations Research and Management Science professional delegate (October 8-18,

2007)

- Distinguished Faculty Award, John Cook School of Business, Saint Louis University (May, 2007)
- Cited as an outstanding mentor in Marc J. Schniederjans, "A Short Bill of Rights for Ph.D. Students," *Decision Lines* (July, 2001)
- Burlington Northern Outstanding Faculty Achievement Award (Citation and Cash Prize), Saint Louis University (1999)
- American Biographical Institute, Eminent Fellow (1999)
- Senior Fulbright Scholar Award for Lecture/Research, Dongguk University, Seoul, Korea (1993-94)
- Presidential Outstanding Research Scholar Award (Citation), Saint Louis University (1993; 1999)
- Presidential Outstanding Service Award (Citation), Saint Louis University (1989; 1994; 2009)
- Listed (with a biographical sketch) in the first *Departmental Newsletter* as an outstanding alumnus of the Department of Economics, University of Southern California (1986)
- Outstanding Teacher Award (Plaque), Department of Management Sciences, Saint Louis University (1986)
- Outstanding Teacher Award, Beta Gamma Sigma, Saint Louis University (1985-86; Second Place, 1992)
- Best Teacher Award, School of Business and Administration, Saint Louis University (1985); Nominated by the Department of Management Sciences (1985; 1986; 1987; 1990; 1992)
- Stanley T. Hardy Award (Honorable Mention), American Institute for Decision Sciences / Midwest Region (1985)
- Outstanding Service Award (Plaque), Texas A&M University (1982);
- Outstanding Service Award, Dongguk University (1993)
- Notable American Award (in recognition of past achievements and outstanding service to community and state), Historical Preservations of America (1977)
- Alcoa Foundation-Carnegie Mellon University Faculty Fellowship (1976)
- General Electric-Stanford University Faculty Research Fellowship (Summer, 1968)
- Helms Fellowship, University of Southern California (1962-63, 1963-64)
- Clune-Haynes Fellowship, University of Southern California (1961-62)

## **PEDAGOGICAL ACTIVITIES**

### **Courses Taught:**

- Intermediate Micro-Economics
- Advanced Economic Theory\*
- Managerial Economics
- Introduction to Econometrics

- Business Forecasting\*
- Economic Forecasting: An Econometric Approach\*
- Introduction to Management Science and Production Systems
- Management Science I
- Management Science II\*
- Introductory Operations Research
- Advanced Operations Research
- Operations Research I\*
- Operations Research II\*
- Applied Operations Research\*
- Mathematical Programming for Management
- Production and Operations Management\*
- Global Operations and Logistics Management\*
- Introductory Statistical Analysis
- Intermediate Business Statistics
- Quantitative Methods and Statistical Inference\*
- Statistical Decision Theory\*
- Systems Analysis and Design in Health Care\*

\*Graduate Course

#### **Ph. D. Dissertation Committees:**

- Peter J. Weigel (2000), Chairman
- Dean Dixon (2000), Chairman
- Seong-Ho Kim, Inha University, Korea (1998), Member
- Changwon Lee (1997), Chairman
- Chulho Christopher Lee (1996), Member
- Abudullah Al-Owaihian (1996), Member
- Seong-Jong Joo (1995), Member
- John H. Orange (1995), Chairman
- Deborah I. Koucky (1994), Chairman
- Ramadan Hemaïda (1991), Chairman
- Kevin J. McCarthy (1991), Chairman
- David R. Grimmett (1989), Chairman
- Raymond D. Brown (1989), Chairman
- Tae Sung Choi (1985), Reader
- Carol B. Diminnie (1983), Chairman
- Lawrence Jones (1979), Chairman
- Marc J. Schniederjans (1978), Chairman
- Paul J. Kuzdrall (1977), Chairman
- Stephen A. DeLurgio (1976), Chairman
- Homer H. Schmitz (1975), Member
- John Watson (1970), Member

## FACULTY COMMITTEES

- Supply Chain Management Curriculum Development Committee, Member (1999-2008)
- Faculty Rank and Tenure Committee--School of Business and Administration, Member (1984-2008)
- Decision Sciences Curriculum Review Committee--Department of Management and Decision Sciences, Member (1990-94; 1996-2008)
- University-wide Faculty Research Peer Review Committee, Member (2006-2009)
- Curriculum Committee--School of Business and Administration, Member (1990-94)
- Faculty Committee on the Curriculum Development in Quantitative Business Analysis, Chairman (1969-71, 1973-75, and 1982-86); Member (1987-98)
- Quantitative Business Faculty Recruiting Committee, Chairman (1989-90; 1992-96)
- Academic and Professional Journal Ranking Committee--School of Business and Administration, Member (1997-98)
- Multidisciplinary (Health Administration and Operations Research) Ph.D. Program Development Committee, Chairman (1997)
- Dean Performance Evaluation Committee--School of Business and Administration, Member (1987, 1996; 1997)
- Graduate Faculty Review Committee--School of Business and Administration, Member (1986-88)
- Task Force for Management Sciences Department Designation--Department of Management Sciences, Member (1985)
- MBA Academic Review Committee--School of Business and Administration, Member (1984-90)
- Committee to Review Research Proposals for Faculty Research Grant--School of Business and Administration, Member (1979-81; 1981-82; 1985; 1986; 1991)
- Faculty Sabbatical Leave Committee--School of Business and Administration, Member (1974-75; 1978-80)
- Professional Development, Evaluation, and Merit Rating Committee--School of Business and Administration, Member (1974-75)
- Executive Committee of the Faculty Assembly--School of Business and Administration, Member (1975-80)
- Committee on Ph.D. Dissertation Proposals and Direction--School of Business and Administration, Co-chairman (1975-76)
- Committee on Graduate Students' Research and Publication--School of Business and Administration, Member (1975-80)
- Ph.D. Admissions Committee--School of Business and Administration, Member (1975-80)
- Committee on High School Visitation Program--School of Business and Administration, Member (1975-80)
- Faculty Committee on Professional Research and Development--School of Business and Administration, Member (1978-80)



- Committee on Health Care Administration Curriculum Development, Member (1979-80)
- Committee on Course and Instructor Evaluation—School of Business and Administration, Chairman (1976)
- Ad Persona Committee (Faculty Teaching and Research Performance Evaluation for Promotion and Tenure/University of Missouri-St. Louis), Member (1978; 1984; 1985; 1986)
- Committee on Faculty Research and Publications Performance Evaluation (for Promotion and Tenure/University of Massachusetts-Harbor Campus), Member (1980; 1984)
- Committee on Faculty Research Performance Evaluation for Promotion and Tenure (Texas A&M University), Member (1982; 1983; 1986)
- Business Analysis and Research Department Faculty Search Committee (Texas A&M University), Member (1982)
- Quantitative Analysis and Statistics Textbook Selection Committee (Texas A&M University), Member (1982)
- Business Analysis and Research Curriculum Evaluation Committee (Texas A&M University), Co-chairman (1982)
- Committee on Graduate Students' Research and Publications--School of Business and Administration, Co-chairman, (1985-80)
- Committee on Ph.D. Dissertation Proposals and Direction--School of Business and Administration, Chairman (1975-76)
- Executive Committee of the Faculty Assembly--School of Business and Administration, Member (1975-80)
- Professional Development, Evaluation, and Merit Rating Committee--School of Business and Administration, Member (1974-75)
- Faculty Sabbatical Leave Committee--School of Business and Administration, Member (1974-75; 1978-80)
- Marketing Department Chairman Search Committee, Member (1974)
- Management Sciences Faculty Search Committee, Chairman (1970-72; 1974-75)
- Committee on Ph.D. Curriculum Development (Clemson and St. Louis), Member (1967; 1970-73; 1976-79; 1982-90)
- Faculty Committee on Curriculum Development in Quantitative Business Analysis, Chairman, (1969-71; 1973-75; 1982-86); Member (1987-98)
- Faculty Committee on the Use of Computers and Visual Aids in Management Sciences, Chairman (1969-71; 1973-74)
- Faculty Committee on Research and Publications (Clemson), Member (1966-68)
- Faculty Committee on Professional Development Courses (Clemson), Member (1966-68)
- Committee on Graduate Student Counseling (Eastern New Mexico), Member (1965)
- Academic Committee Works for Many MBA and Ph.D. Students (Eastern New Mexico, Clemson, and St. Louis), (1964-2000)

## RESEARCH AND PUBLICATIONS

### Books:

Kwak, N. K. and Tae Sung Choi: *Management Science: Theory and Applications* (in Korean), Dasan Publishing Company, Seoul, Korea (1998); 2<sup>nd</sup> ed. (2000), pp. 775.

Kwak, N. K. and Tae Sung Choi: *Management Science: Theory and Applications--A Manual and Study Guide* (in Korean), Dasan Publishing Company, Seoul, Korea (1998); 2<sup>nd</sup> ed. (2000), pp. 215.

Kwak, N. K. and Tae Sung Choi: *Operations Research/Management Science* (in Korean), Dasan Publishing Company, Seoul, Korea (1988); 2<sup>nd</sup> ed. (1994); 3<sup>rd</sup> ed. (1995), pp. 784.

Kwak, N. K. and Tae Sung Choi: *Operations Research/Management Science: A Manual and Study Guide* (in Korean), Dasan Publishing Company, Seoul, Korea (1994, 1995), pp. 226.

Kwak, N. K. and Marc J. Schniederjans: *Introduction to Mathematical Programming*, Krieger Publishing Co., Inc., Melbourne, FL (1987, 1989), pp. xii+356. Also, distributed in Australia via fishpond.com.au. The book review appears in the *Journal of the Indian Institute of Science*, 69 (September-October, 1989), p. 418.

Kwak, N. K. and Marc J. Schniederjans: *Introduction to Mathematical Programming: Solutions Manual*, Krieger Publishing Company, Inc., Melbourne, FL (1987), pp. 124.

Kwak, N. K., Marc J. Schniederjans, and Homer H. Schmitz (eds.): *Operations Research: Applications in Health Care Planning*, University Press of America, Lanham, MD (1984), pp. x+347. ISBN (Perfect): 0-8191-4168-2; ISBN (Cloth): 0-8191-4167-4. The book review appears in the *European Journal of Operational Research*, 25 (May, 1986).

Kwak, N. K. and Marc J. Schniederjans (eds.): *Managerial Applications of Operations Research*, University Press of America, Lanham, MD (1982), pp. x+441. ISBN (Perfect): 0-8191-2228-9; ISBN (Cloth): 0-8191-2227-0. Also, Better World Books (1983). The book review appears in *Interfaces*, 13: 5 (October, 1983), pp. 117-119.

Kwak, N. K. and Stephen A. DeLurgio: *Quantitative Models for Business Decisions* (Chinese edition), English Printing Company, Taipei, Taiwan (1981, 1985), pp. 770.

Kwak, N. K. and Stephen A. DeLurgio: *Quantitative Models for Business Decisions*, Wadsworth Publishing Company (Duxbury Press), North Scituate, MA (1980), pp. xx+769.

Kwak, N. K. and Stephen A. DeLurgio: *Quantitative Models for Business Decisions* (A

Manual), Duxbury Press, (Wadsworth Inc.), Belmont, CA (1980), pp. 294.

Kim, Kee Young and N. K. Kwak: *Quantitative Decision Theory for Management* (in Korean), Bopmoonsa Publishers, Seoul, Korea (1979); 2nd ed. (1985), pp. 619; 3rd ed. (1987), pp. x+735; 10<sup>th</sup> printing (1996).

Kwak, N. K.: *Mathematical Programming with Business Applications* (Digitized Version), The University of Michigan, Ann Arbor, MI, ISBN 007035717X, 9780070357174, (August 26, 2010).

Kwak, N. K.: *Mathematical Programming with Business Applications*, McGraw-Hill Book Company, New York (1973), pp. xiv+334. (Cited/referenced in 54 different books dealing with Operations Research/Management Sciences.).

Kwak, N. K.: *Mathematical Programming with Business Applications*, (Instructor's Manual), McGraw-Hill Book Company, New York (1973), pp. ii+99.

#### **Articles and Monographs:**

Lee, Chang Won, N. K. Kwak, and Walter A. Garrett, Jr.: "A Comparative Appraisal of Operational Efficiency in U.S. Research-University Libraries: A DEA Approach," in Kenneth D. Lawrence and Gary Kleinman (eds.): *Applications of Management Science*, 16: 115-128 (2013), Emerald Group Publishing Ltd., Bingley, UK.

Lee, Chang Won and N. K. Kwak: "Strategic Enterprise Resource Planning in a Health-Care System Using a Multicriteria Decision-Making Model," *Journal of Medical Systems*, 35: 265-275 (2011). Also, published on line, 1-11 (10 September, 2009).

Garrett, Walter A. Jr. and N. K. Kwak: "Performance Comparison of Missouri Public Schools Using Data Envelopment Analysis," in Kenneth D. Lawrence and Gary Kleinman (eds.): *Applications of Management Science*, 14: 137-157 (2010), Emerald Group Publishing Ltd., Bingley, UK.

Kwak, N. K. and Chang Won Lee: "An MCDM Application to Strategic Outsourcing and Supply Chain Management," in Kirk St. Amant (ed.): *IT Outsourcing: Concepts, Methodologies, Tools, and Applications*, 707-720 (2010), IGI Global Publishing, Hershey, PA.

Kwak, N. K. and Chang Won Lee: "Sustainability Assessment of Venture Business Firms Using Data Envelopment Analysis," in Kenneth D. Lawrence and Gary Kleinman (eds.): *Applications of Management Science*, 13: 247-260 (2009), Emerald Group Publishing Ltd., Bingley, UK.

Kwak, N. K. and Walter A. Garrett, Jr.: "Rich and Poor in Saint Louis: Performance

Characteristics of Public Schools Using a DEA Approach,” in Kenneth D. Lawrence and Gary Kleinman (eds.): *Applications of Management Science*, 13: 227-246 (2009), Emerald Group Publishing Ltd., Bingley, UK.

Kwak, N. K. and Chang W. Lee: “A Dual Transportation Problem Analysis for Facility Expansion/Contraction Decisions,” in Kenneth D. Lawrence and Ronald L. Klimberg (eds.): *Advances in Business and Management Forecasting*, 6: 237-248 (2009), Emerald Group Publishing, Ltd., Bingley, UK.

Kwak, N. K. and Chang W. Lee: “An Application of Multicriteria Decision-Making Model to Strategic Outsourcing for Effective Supply-Chain Linkages,” in Marc J. Schniederjans et al. (eds.): *Outsourcing Management Information Systems*, 324-343 (2007), Idea Group Publishing, Hershey, PA. Also, in M. Gordon Hunter (ed.): *Selected Readings on Strategic Information Systems*, Chapter XV: 223-236 (2009), Information Science Reference, Hershey, PA. This research was partially supported by the Korea Research Foundation Grant.

Kwak, N. K., Yong Soo Chun, and Seongho Kim: “Evaluating Operational Efficiency of Railway Systems with Sensitivity Analyses to Sampling Variations,” in Kenneth D. Lawrence (ed.), *Applications of Management Science*, 12: 23-40 (2006), JAI Press, Inc., Greenwich, CT.

Kwak, N. K., Chang W. Lee, and Ji Hee Kim: “An MCDM Model for Media Selection in the Dual Consumer/Industrial Market,” *European Journal of Operational Research*, 166: 255-265 (2005).

Kwak, N. K., Tae Sung Choi, and Seong Ho Kim: “Evaluating the Relative Efficiency of Railway Operations Using Data Envelopment Analysis,” in Kenneth D. Lawrence (ed.), *Applications of Management Science*, 11: 77-88 (2004), Elsevier Ltd., Oxford, UK.

Kwak, N. K. and Chang W. Lee: “Supply Chain and Logistics to Maintain Effective Customer Relationship Management,” in Kenneth D. Lawrence (ed.), *Applications of Management Science*, 11: 135-148 (2004), JAI Press, Inc., Greenwich, CT. This research was partially supported by the Korea Research Foundation Grant.

Kwak, N. K. and Chang W. Lee: “Business Process Reengineering for Health-Care System Using Multicriteria Mathematical Programming,” *European Journal of Operational Research*, 140: 447-458 (2002).

Kwak, N. K., Seongho Kim, Chang W. Lee, and Tae Sung Choi: “An Application of Linear Programming Discriminant Analysis to Classifying and Predicting the Symptomatic Status of HIV/AIDS Patients,” *Journal of Medical Systems*, 26 (5): 427-438 (2002). Listed as the best paper of Top 20 Articles, in the Domain of Article 12182207, published since 2002 (Mir Siadaty-BioMed Lib, 2015).

Kwak, N. K., Tae Sung Choi, and Seongho Kim: "Efficiency Evaluation of Research University Libraries Using Data Envelopment Analysis," in Kenneth D. Lawrence et al. (eds.), *Advances in Mathematical Programming and Financial Planning*, 6: 3-18 (2001), Elsevier Science, Amsterdam, Netherlands.

Kwak, N. K. and Chang W. Lee: "A Decision Support Model for Supply Chain Management Using Multicriteria Mathematical Programming," in Kenneth D. Lawrence et al. (eds.), *Advances in Mathematical Programming and Financial Planning*, 6: 233-246 (2001), Elsevier Science, Amsterdam, Netherlands.

Orange, John H. and N. K. Kwak: "A Nonlinear Programming Approach to Product Bundling for Add-on Services," in Kenneth D. Lawrence and Gay R. Reeves (eds.), *Applications of Management Science*, 10: 49-69 (2000), JAI Press, Inc., Greenwich, CT.

Kwak, N. K. and Chang W. Lee: "An Integrated Multicriteria Mathematical Programming Model for Resource Allocation in a University-Affiliated Health-Care System," in Kenneth D. Lawrence and Gary R. Reeves (eds.), *Applications of Management Science*, 10:119-137 (2000), JAI Press, Inc., Greenwich, CT.

Kwak, N. K. and Seong Ho Kim: "Data Envelopment Analysis: Concepts, Applications, and Perspectives," in S. B. Dahiya (ed.), *Current State of Business Disciplines*, 519-539 (2000), Spellbound Publications, Ltd., Rohtak, India.

Lee, Chang W. and N. K. Kwak: "Information Resource Planning for a Health-Care System Using an AHP-based Goal Programming Method," *Journal of the Operational Research Society*, 50: 1191-1198 (1999). Its digest appears in *International Abstracts in Operations Research*, 51 (6): 1117 (December, 2000). Also, cited in *Academy of Information and Management Science Journal* 6(2): 75 (2003).

Kwak, N. K. and Nghia G. Phan: "A Linear Programming Model for Optimal Aircraft Cargo Loading," in Kenneth D. Lawrence et al. (eds.) *Advances in Mathematical Programming and Financial Planning*, 5:117-131 (1999), JAI Press, Inc., Stamford, CT.

Radasch, Deborah K. and N. K. Kwak: "An Integrated Mathematical Programming Model for Offset Planning," *Computers and Operations Research*, 24:1069-1083 (December, 1998). Its digest appears in *International Abstracts in Operations Research*, 50 (4): 618 (August, 1999).

Kwak, N. K. and Chang W. Lee: "A Multicriteria Strategic Planning Model for Resource Allocation in a University Hospital," *Proceedings of the 16<sup>th</sup> European Conference on Operational Research*, 25: 75 (July, 1998).

Kwak, N. K. and Chang W. Lee: "A Neural Network Application to Classification of Health Status of HIV/AIDS Patients," *Journal of Medical Systems*, 21: 87-97 (1997). Also, cited in

*The Asian Pacific Conference on Intelligent Systems*, 473-475 (November, 2001).

Kwak, N. K. and Chang W. Lee: "A Multicriteria Decision-Making Approach to University Resource Allocations and Information Infrastructure Planning," *European Journal of Operational Research*, 58: 1-9 (November 1997). Its digest appears in *International Abstracts in Operations Research*, 50 (6): 1110 (December, 1999). Also, cited in *Academy of Information and Management Science Journal*, 6(2):75, (2003).

Kwak, N. K. and Tae Sung Choi: "A Preference Assessment Model for Personnel Selection: An AHP Application," *Inha Management Review*, 4: 23-45 (June, 1997).

Kwak, N. K., Kevin J. McCarthy, and Gerald E. Parker: "A Human Resource Planning Model for Hospital/Medical Technologists: An Analytic Hierarchy Process Approach," *Journal of Medical Systems*, 21 (3):173-187 (1997).

Kwak, N. K. and Chang W. Lee: "A Linear Goal Programming Model for Human Resource Allocations in a Health-Care Organization," *Journal of Medical Systems*, 21 (3): 129-140 (1997).

Radasch, Deborah K. and N. K. Kwak: "An Integrated Mathematical Programming Model for Counter-Trade Planning," *Proceedings of the Decision Sciences Institute National Meeting*, 927-929 (November, 1995).

Kwak, N. K. and Deborah I. Koucky: "A Goal Programming Approach to Equipment Acquisitions," in Kenneth D. Lawrence et al. (eds.), *Advances in Mathematical Programming and Financial Planning*, 4: 207-222 (1995), JAI Press, Inc., Greenwich, CT.

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## **PAPER PRESENTATIONS AT THE PROFESSIONAL MEETINGS**

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Kwak, N. K. and Chang Won Lee: “Academic Research Library Operational Efficiency Evaluation Using Data Envelopment Analysis,” at the Institute for Operations Research and Management Sciences (INFORMS) Meeting (October 15, 2008), Washington, D. C. Kwak served as a DEA session chair.

Kwak, N. K. and Chang Won Lee: “Improving Supply Chain Performance by Process Innovation in a Health-Care System,” (invited paper) at the International Federation of Operational Research Societies (IFORS) Triennial Meeting (July 15, 2008), Sandton, South Africa.

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Kwak, N. K. and Chang W. Lee: “An Integrated Multicriteria Mathematical Programming Model for Resource Allocation in a University-Affiliated Health-Care System,” (invited paper) at the Joint International Meeting of the Institute for Operations Research and Management Sciences and the Korean Management Sciences Society, (June 19, 2000), Seoul, Korea.

Kwak, N. K. and Chang W. Lee: “Developing an Effective Health-Care Information System through Productivity Improvement Planning,” at the National Meeting of the Institute for Operations Research and Management Sciences, (May 9, 2000), Salt Lake City, UT. Kwak served as a Health Care session chair.

Kwak, N. K. and Chang W. Lee: “An Integrated Decision Support Model for Resource Allocation in a Health-Care System,” at the National Meeting of the Institute for Operations Research and Management Sciences, (November 8, 1999), Philadelphia, PA.

Kwak, N. K. and Seong Ho Kim: “A Linear Programming Discriminant Analysis Model for HIV/AIDS Patient Classification,” at the National Meeting of the Institute for Operations Research and Management Sciences, (May 4, 1999), Cincinnati, OH.

Kwak, N. K. and Chang W. Lee: “A Multicriteria Strategic Planning Model for Resource Allocation in a University Hospital,” (invited paper) at the 16th European Conference on Operational Research, (July 14, 1998). Brussels, Belgium.

Kwak, N. K. and Chang W. Lee: “An Integer Goal Programming Model for Health-Care Strategic Resource Allocation Planning,” at the Joint International Meeting of the Canadian Operational Research Society and the Institute for Operations Research and Management Sciences, (April 29, 1998), Montreal, Canada.

Kwak, N. K., Kevin J. McCarthy, and Gerald E. Parker: “An Analytic Hierarchy Process

Approach to Human Resource Planning for Health-Care Administration,” (invited paper) at the Joint International Meeting of the Institute for Operations Research and Management Sciences and the European Operational Research Society, (July 14, 1997), Barcelona, Spain.

Kwak, N. K. and Chang W. Lee: “A Multicriteria Decision-Making Approach to University Resource Allocation,” at the National Meeting of the Institute for Operations Research and Management Sciences, (May 5, 1997), San Diego, CA. Kwak served as a Multicriteria Decision-Making session chair.

Radasch, Debroh K. and N. K. Kwak: “An Integrated Mathematical Programming Model for Offset Planning,” at the 26th National Meeting of the Decision Sciences Institute, (November 20, 1995), Boston, MA.

Orange, John H. and N. K. Kwak: “A Nonlinear Programming Approach to Product Bundling,” at the National Meeting of the Institute for Operations Research and Management Sciences, (May 17, 1995), Los Angeles, CA.

Kwak, N. K.: “Three Mathematical Programming Techniques for Solving Transshipment Problems: Wilcoxon Tests,” (invited paper) at the Business and Economics Faculty Seminar Meeting, Dongguk University (November 11, 1993), Seoul, Korea.

Kwak, N. K.: “Mathematical Programming Approaches to Managerial Decision Making,” (invited paper) at the Dongguk University as a Senior Fulbright Scholar (November 5, 1993), Seoul, Korea.

Kwak, N. K.: “Operations Research/Management Science and Its Business Applications: Past, Present, and Future Trends,” (invited paper) at the Graduate Faculty Seminar Meeting, Inha University School of Economics and Business, Incheon, Korea (October 21, 1993).

Kwak, N. K. and John H. Orange: “A Mixed Integer Goal Programming Model for Advertising Media Selection,” at the Joint National Meeting of the Operations Research Society and the Institute of Management Sciences, (May 18, 1993), Chicago, IL.

Koucky, Deborah I. and N. K. Kwak: “An Analytic Hierarchy Process Model for the Goal Programming Solution to an International Offset Package,” at the Decision Sciences Institute National Meeting, (November 23, 1992), San Francisco, CA.

Grimmett, David R. and N. K. Kwak: “Using Total Quality Management Techniques When Modeling Business Games,” at the National Conference of the Association for Business Simulation and Experiential Learning, (March 25, 1992), Las Vegas, NV.

Koucky, Deborah I. and N. K. Kwak: “Corporate Modernization Using a Goal Programming Model,” at the Decision Sciences Institute National Meeting, (November 25, 1991), Miami

Beach, FL.

Kwak, N. K. and Deborah I. Koucky: "A Goal Programming Approach to Equipment Acquisitions," at the Decision Sciences Institute National Meeting, (November 25, 1991), Miami Beach, FL.

Kwak, N. K. and Ramadan S. Hemaida: "A Linear Goal Programming Model for Transshipment Problem Solution," at the Joint National Meeting of the Operations Research Society of America and the Institute of Management Sciences, (May 13, 1991), Nashville, TN.

Kwak, N. K. and Kevin J. McCarthy: "Multicriteria Models for Group Decision Making," at the Decision Sciences Institute National Meeting, (November 20, 1990), San Diego, CA.

Kwak, N. K., James S Frueh, and Marc J. Schniederjans: "A Stochastic Linear Programming Model to Improve Automobile Dealership Operations," at the Production and Inventory Society National Meeting, (October 15, 1990), Washington, D.C.

Grimmett, David R. and N. K. Kwak: "Using Discrete Distributions When Modeling Project Networks," at the Joint National Meeting of the Operations Research Society of America and the Institute of Management Sciences, (May 9, 1990), Las Vegas, NV.

Kwak, N. K. and David R. Grimmett: "GERT Methods for Determining the Probability Distribution of the Activities in a PERT Network," at the Joint National Meeting of the Operations Research Society of America and the Institute of Management Sciences, (October 16, 1989), New York, NY.

Kwak, N. K. and Raymond D. Brown: "A Markovian Model of College Admissions Process," (invited paper) at the Joint National Meeting of the Canadian Operations Research Society, the Operations Research Society of America, and the Institute of Management Sciences, (May 10, 1989), Vancouver, Canada.

Grimmett, David R. and N. K. Kwak: "The Looking-Up, Looking-Down Paradox, Another Shot at PERT," at the Joint National Meeting of the Operations Research Society of America and the Institute of Management Sciences, (October 24, 1988), Denver, CO.

Kwak, N. K. and Marc J. Schniederjans: "A Linear Goal Programming Model for Market Distribution Decisions," at the Joint National Meeting of the Operations Research Society of America and the Institute of Management Sciences, (April 25, 1988), Washington, DC.

Kwak, N. K. and David R. Grimmett: "Using Goal Programming Concepts in the Fitting of Discrete Distributions," at the Joint National Meeting of the Operations Research Society of America and the Institute of Management Sciences, (April 27, 1988), Washington, DC.

Kwak, N. K.: "A Modified Simplex Algorithm for Solving Linear Goal Programming Problems," (invited paper) at the Joint National Meeting of the Operations Research Society of America and the Institute of Management Sciences, (October 28, 1987), St. Louis, MO.

Kwak, N. K.: "A Goal Programming Application to Budgetary Decision Making," (invited paper) at the Joint National Meeting of the Operations Research Society of America and the Institute of Management Sciences, (May 4, 1987), New Orleans, LA.

Grimmett, David R. and N. K. Kwak: "Alternative Methods for Determining the Probability Distribution of the Activities in a PERT Network," at the Joint National Meeting of the Operations Research Society of America and the Institute of Management Sciences, (October 29, 1986), Miami Beach, FL. Kwak served as a Network Modeling session chair.

Kwak, N. K. and Carol B. Diminnie: "A Goal Programming Model for Reverse Resource Allocation," at the Joint National Meeting of the Operations Research Society of America and the Institute of Management Sciences, (April 15, 1986), Los Angeles, CA.

Kwak, N. K., Raymond D. Brown, and Marc J. Schniederjans: "A Markov Analysis of Student Enrollment Variations," at the 20th National Meeting of the American Institute for Decision Sciences, (November 11, 1985), Las Vegas, NV.

Schniederjans, Marc J. and N. K. Kwak: "A Statistical Screening Procedure for Goal Programming Algorithm Selection," at the Joint National Meeting of the Operations Research Society of America and the Institute of Management Sciences, (April 30, 1985), Boston, MA.

Kwak, N. K.: "A Stochastic Model for Forecasting Accounts Receivable Collection and Determining an Optimal Credit Policy," at the Joint National Meeting of the Operations Research Society of America and the Institute of Management Sciences, (May 14, 1984), San Francisco, CA.

Kwak, N. K. and Marc J. Schniederjans: "Reduced Element Goal Programming Solution Procedure," at the Joint National Meeting of the Operations Research Society of America and the Institute of Management Sciences, (October 24-27, 1982), San Diego, CA.

Schniederjans, Marc J. and N. K. Kwak: "Simulating Blood Collection Services," at the Joint National Meeting of the Operations Research Society of America and the Institute of Management Sciences, (October 24-27, 1982), San Diego, CA.

Kwak, N. K. and Lawrence Jones: "A Goal Programming Model as an Aid for Human Resources Management," at the Joint National Meeting of the Operations Research Society of America and the Institute of Management Sciences, (October 12-14, 1981), Houston, TX.

Kwak, N. K. and Walter A. Garrett, Jr.: "Application of a Corporate Modeling System to

Integrated Manpower Planning,” at the Joint National Meeting of the Operations Research Society of America and the Institute of Management Sciences, (October 12-14, 1981), Houston, TX.

Kwak, N. K. and Walter A. Garrett, Jr.: “The Integration of Strategic Business Planning with Human Resource Planning: A Case Study,” at the Joint National Meeting of the Operations Research Society of America and the Institute of Management Sciences, (November 10-14, 1980), Colorado Springs, CO.

Kwak, N. K. and Marc J. Schniederjans: "Goal Programming Solutions to Transportation Problems with Variable Supply and Demand Requirements," at the Joint National Meeting of the Operations Research Society of America and the Institute of Management Sciences, (May 4-7, 1980), Washington, DC.

Kwak, N. K. and Marc J. Schniederjans: “A Goal Programming Model as an Aid to Facility Location Analysis,” at the Joint National Meeting of the Operations Research Society and the Institute of Management Sciences, (October 25-27, 1979), Milwaukee, WI.

Kwak, N. K. and Marc J. Schniederjans: "A Goal Programming Analysis for Improved Operational Planning," (invited paper) at the 24th International Meeting of the Institute of Management Sciences, (June 18-22, 1979), Honolulu, HI.

Kwak, N. K., Terry Allen, and Marc J. Schniederjans: "A Goal Programming Model for Multilevel Salary Compensation Analysis,” at the Joint National Meeting of the Operations Research Society of America and the Institute of Management Sciences, (November 13-15, 1978), Los Angeles, CA.

Kwak, N. K. and Marc J. Schniederjans: "Utilization of Goal Programming for Improved Transportation Problem Solutions," at the Joint National Meeting of the Operations Research Society of America and the Institute of Management Sciences (May 1-3, 1978), New York, NY.

Litka, M P., N. K. Kwak, and P. J. Kuzdrall: "Justice Delayed,” at the American Business Law Association Annual Convention, (August, 1977), Orlando, FL.

Kwak, N. K. and Paul J. Kuzdrall: “Felony Case Scheduling: A Simulation of Continuance Problem,” at the 19<sup>th</sup> National Conference of the Canadian Operations Research Society, (May 16-18, 1977), Montreal, Canada.

Kwak, N. K. and Gary Greenshields: "An Optimal Allocation Model for Local Market Advertising Budgets," at the Joint National Meeting of the Operations Research Society of America and the Institute of Management Sciences, (May 9-11, 1977), San Francisco, CA.

Kim, Suk H. and N. K. Kwak: "Capital Budgeting Practices and Their Impacts on Earnings Performance," at the Eighth National Meeting of the American Institute for Decision Sciences," (November 10-12, 1976), San Francisco, CA.

Kwak, N. K. and Walter A. Garrett, Jr.: "A Generalized Model of Supply Forecasting for Technical Manpower Planning," at the Joint National Meeting of the Operations Research Society of America and the Institute of Management Sciences, (November 3-6, 1976), Miami Beach, FL.

Kwak, N. K. and Paul J. Kuzdrall: "GPSS Simulation of Courtroom Scheduling Policies," at the Joint National Meeting of the Operations Research Society of America and the Institute of Management Sciences, (November 3-6, 1976), Miami Beach, FL.

Kwak, N. K. and Paul J. Kuzdrall: "A Stochastic Manpower Planning Model for Corporate Employment Scheduling," The 18th National Conference of the Canadian Operations Research Society, (May 19-21, 1976), Toronto, Canada.

Kwak, N. K. and Walter A. Garrett, Jr.: "A Stochastic Model for Manpower Demand Forecasting," at the Joint National Meeting of the Operations Research Society of America and the Institute of Management Sciences, (November 17-19, 1975), Las Vegas, NV.

Kwak, N. K. and Stephen A. DeLurgio: "A Linear Programming Production Horizon Sensitivity Study With and Without Shortage Costs," at the National Meeting of the Operations Research Society of America and the Institute of Management Sciences, (April 30-May 2, 1975), Chicago, IL.

Carder, William and N. K. Kwak: "An Analysis of Standardized Disease Classification System for Health Care Planning," at the Joint National Meeting of the Operations Research Society of America and the Institute of Management Sciences, (April 30-May 2, 1975), Chicago, IL.

Kwak, N. K. and Stephen A. DeLurgio: "A Linear Programming Model for Optimal Production Planning, Inventory Control, and Employment," (invited paper) at the Joint International Meeting of the Operations Research Society of America and the Institute of Management Sciences, (October 16-18, 1974), San Juan, Puerto Rico.

Kwak, N. K.: "Media Allocation--A Linear Programming Simulation Approach," at the Joint International Meeting of the Operations Research Society of America and the Institute of Management Sciences, (October 16-18, 1974), San Juan, Puerto Rico.

Kwak, N. K. and Paul J. Kuzdrall: "Monte Carlo Simulation of Health Care Facility Utilization: A Queuing Model," at the 16<sup>th</sup> Annual Conference of the Canadian Operations Research Society, (May 27-29, 1974), Ottawa, Canada.

Kwak, N. K., Paul J. Kuzdrall, and Homer H. Schmitz: "GPSS Simulation of Hospital Recovery Facility Utilization," at the Fifth National Meeting of the American Institute for Decision Sciences (November 14-16, 1973), Boston, MA.

Kwak, N. K. and Lawrence Jones: "An Application of PERT/CPM to R&D Scheduling," at the 44th National Meeting of the Operations Research Society of America, (November 12-14, 1973), San Diego, CA.

Kwak, N. K. and Paul J. Kuzdrall: "An Application of the Transportation Algorithm to the College Recruiting Process," at the 43rd National Meeting of the Operations Research Society of America, (May 9-11, 1973), Milwaukee, WI.

Kwak, N. K. and Walter A. Garrett, Jr.: "A Stochastic Model for Technical Manpower Forecasting and Planning," at the Joint National Meeting of the Operations Research Society of America, the Institute of Management Sciences, and the American Institute of Industrial Engineers, (November 8-10, 1972), Atlantic City, NJ.

Kwak, N. K.: "Linear Programming Under Uncertainty: A Simulation Approach," at the Joint National Meeting of the Operations Research Society of America, the Institute of Management Sciences, and the American Institute of Industrial Engineers, (November 8-10, 1972), Atlantic City, NJ.

Schmitz, Homer H. and N. K. Kwak: "Monte Carlo Simulation of Operating-Room and Recovery-Room Usage," at the 12th American Meeting of the Institute of Management Sciences, (September 29-October 2, 1971), Detroit, MI.

Kwak, N. K.: "Demand for Medical and Hospital Care: A Regional Analysis and Forecasting by Econometric Methods," at the 97th Annual Meeting of the American Public Health Association, (November 11-14, 1969), Philadelphia, PA.

Kwak, N. K.: "An Econometric Analysis of the Product Consumption Function for Synthetic Rubber," (invited paper) at the 40th Annual Meeting of the South Carolina Academy of Science, (April 29, 1967), Greenville, SC.

Kwak, N. K.: "An Application of Linear Programming to Decision Making," at the 39th Annual Meeting of the South Carolina Academy of Science, (April 23, 1966), Columbia, SC.

In addition, Kwak presented nine other papers before the Clemson University Graduate Faculty (1966 and 1967), Greenville Hospital System (1967 and 1968), Southern Bell Telephone Company (1966 and 1967), and Saint Louis University Faculty (1972, 1973, and 1974). Also, Kwak participated in the various professional meetings as a discussant, session chair, cluster chair, and track chair without paper presentations.



