

Cecil Bozarth
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Biography

Cecil Bozarth is a Professor of Operations and Supply Chain Management at the College of Management, N.C. State University. Cecil's areas of expertise include operations strategy, business process management, and planning and controlling operations processes. He received his PhD from the Kenan-Flagler Business School at UNC-Chapel Hill. Prior to that, he was a systems engineer at IBM.

Professor Bozarth has won teaching awards at the college and university level, and is co-author of the book *Introduction to Operations and Supply Chain Management*, published by Prentice-Hall. His research has appeared in *the Journal of Operations Management*, *Decision Sciences*, *International Journal of Operations and Production Management*, and *Production and Operations Management*, and he serves as an associate editor for the *Journal of Operations Management*.

Cecil has also received N.C. State University's Outstanding Extension Service Award for his work with the business community. His consulting and executive education experience cuts across a wide range of companies, including ABB, Accenture, Bayer, Deloitte Touche Tohmatsu, Duke Energy, IBM, GSK, and BlueCross BlueShield of North Carolina.

Core Research Areas

Operations and supply chain strategy; business process management; production planning and control; services fulfillment.

Education

- 1988 – 1992 **University of North Carolina at Chapel Hill.** Received Ph.D. in Business Administration, specializing in Operations Management.
- 1986 - 1988 **Georgia State University**, Atlanta, Georgia. Received Masters of Science in Decision Sciences, Applied Statistics.
- 1980 - 1984 **University of Georgia**, Athens, Georgia. Received BBA in Management Sciences. Graduated *cum laude* with general honors.

Professional Experience

- 2010 - **North Carolina State University**, Raleigh. Professor of Business Management, College of Management.
- 1998 - 2010 **North Carolina State University**, Raleigh. Associate Professor of Business Management, College of Management.
- Spring, 2003 **The Darden School, University of Virginia**, Charlottesville. Visiting Professor.
- 1992 - 1998 **North Carolina State University**, Raleigh. Assistant Professor of Business Management, College of Management.
- 1984 - 1988 **IBM**, Atlanta, Georgia. Systems Engineer with primary responsibility for hardware and software planning, and ongoing support of large-scale systems customers.

Articles in Refereed Journals

- Bozarth, C., Warsing, D., Flynn, B., & Flynn, J. (2009). The impact of supply chain complexity on manufacturing plant performance. *Journal of Operations Management*, Vol. 27, No. 1, pp. 79-93.
- Bozarth, C., Blackhurst, J., & Handfield, R. (2007). Following the Thread: Industry Cluster Theory, the New England Cotton Textiles Industry, and Implications for Future Supply Chain Research. *Production and Operations Management*, Vol. 16, No. 1, pp. 154-157.
- Bozarth, C., (2006). ERP Implementation Efforts at Three Firms: Applying lessons from the SISP and IT-Enabled Change Literature. *International Journal of Operations and Production Management*, Vol. 26, No. 11, pp. 1223-1239.
- Bozarth, C. & Vilarinho, P.(2006). Analyzing the impact of space density and planning and control procedures on plant space requirements: A case study and methodology. *International Journal of Industrial Engineering*, Vol. 13, No. 1, pp. 81-89.
- Bozarth, C. & McCreery, J. (2001). A Longitudinal study of the impact of market requirements focus on manufacturing performance. *International Journal of Production Research*, Vol. 39, No. 14, pp. 3237-3252.
- Boyer, K., Bozarth, C., and McDermott, C. (2000). Configurations in operations: An emerging area of study. *Journal of Operations Management*, Vol. 18, No. 6, pp. 601-604.
- Bozarth, C., & Berry, W. (2000). Measuring market-manufacturing congruence: Conceptual reaffirmations and mathematical modifications. *Decision Sciences*, Vol. 31, No. 1, pp. 233-241.

- Bozarth, C., & McDermott, C. (1998). Configurations in manufacturing strategy: A review and directions for future research. *Journal of Operations Management*, Vol. 16, No. 4, pp. 427-439.
- Bozarth, C., Handfield, R., & Das, A. (1998). Stages of global sourcing strategy evolution: An exploratory study. *Journal of Operations Management*, Vol. 16, Nos. 2 & 3, pp. 241-255.
- Edwards, S., & Bozarth, C. (1998). Assessing the accuracy of manufacturing cost systems using operations-based segments. *Production & Inventory Management Journal*, Vol. 39, No. 1, pp. 62-66.
- Bozarth, C., & Berry, W. (1997). Measuring the congruence between market requirements and manufacturing: A methodology and illustration. *Decision Sciences*, Vol. 28, No. 1, pp. 121-150.
- Bozarth, C., & Edwards, S. (1997). The impact of market requirements focus and manufacturing characteristics focus on manufacturing performance. *Journal of Operations Management*, Vol. 15, No. 3, pp. 161-180.
- Bozarth, C., & Chapman, S. (1996). A contingency view of time-based competition for manufacturers. *International Journal of Operations and Production Management*, Vol. 16, No. 6, pp. 56-67.
- Bozarth, C. (1993). A conceptual model of manufacturing focus. *International Journal of Operations and Production Management*, Vol. 13, No. 1, pp. 8 1-92.
- Berry, W., Bozarth, C., Hill, T., & Klompmaker, J. (1991). Market segmentation analysis in formulating operations strategy. *Journal of Operations Management*, Vol. 10, No. 3, pp. 363-387.

Papers under Review and Completed Manuscripts

- Bozarth, C., Warsing, D., Rossetti, C. & Flynn, B. The relationship between supply chain complexity, lean production practices, and manufacturing plant performance. In preparation for submission to the *Journal of Operations Management*.
- Gallmann, F., deTreville, S., Borno, M., Reiner, G., and Bozarth, C. Human and organizational factors in lead-time reduction. Working paper.
- Bozarth, C. & Warsing, D. The effects of information-processing alternatives on managing supply chain complexity: Empirically-supported prescriptions versus practice. In preparation for submission to the *Decision Sciences Journal*.

Bozarth, C. & Warsing, D. The evolving role of manufacturing planning and control systems in supply chains. In preparation for submission to the *International Journal of Operations and Production Management*.

Books & Related Material

Bozarth, C., & Handfield, R. (2008, 2nd Edition). Introduction to Operations and Supply Chain Management. Pearson Prentice-Hall, Upper Saddle River, NJ.

Bozarth, C., & Handfield, R. (2006, 1st Edition). Introduction to Operations and Supply Chain Management. Pearson Prentice-Hall, Upper Saddle River, NJ.

Bozarth, C. (2006). Advanced Decision Support Tools. Pearson Prentice-Hall, Upper Saddle River, NJ

Conference Proceedings & Presentations

“What is the relationship between lean practices, supply chain complexity, and manufacturing plant performance?”, with Barb Flynn, Christian Rossetti, and Don Warsing. *Annual Meeting of the Production and Operations Management Society (2009)*.

“The impact of supply chain complexity on manufacturing plant performance”, with Don Warsing, Barb Flynn and Jim Flynn. *Decision Sciences Institute Annual Meeting (2007)*.

"Supply Chain Complexity: An empirical analysis of performance implications and accommodating mechanisms", with Barb Flynn, Jim Flynn, and Don Warsing. Presented at the annual meeting of the Decision Sciences Institute (2006).

"Hands-on planning and control: Improving supplier, customer, and internal production- logistics planning systems," with Don Warsing, *Annual Meeting of the Production and Operations Management Society (2005)*.

"Dimensionalizations of fit in supply chain management", with Ajay Das and Robert Handfield, *33rd~ annual Meeting of the Northeast Decision Sciences Institute (2003)*.

"Prescription versus practice: Evaluating the ERP decision and implementation process at three firms," *Decision Sciences Institute Annual Meeting (2003)*.

"Evaluating the ERP decision and implementation process at three firms", *17th International Conference on Production Research (2003)*.

- "Centralized vs. decentralized distribution in a multi-stage manufacturing system - A case study", with Pedro Vilarinho, *8th Annual International Conference on Industrial Engineering Theory, Applications and Practice* (2003).
- "The notion of customized supply chain management", with Ajay Das and Robert Handfield, *Decision Sciences Institute Meeting* (2002).
- "Profiles in supply chain management", with Ajay Das and Robert Handfield, *Decision Sciences Institute Meeting* (2002). Handfield, 13'~ *Annual North American Research and Teaching Symposium on Purchasing and Supply Chain Management* (2002).
- "Manufacturing configurations: An improved typology", *Academy of Management Meeting* (2000).
- "The impact of customization on manufacturing infrastructure and performance", with Lynda Aiman-Smith and John McCreery. *Decision Sciences Institute Meeting* (1999).
- Cecil Bozarth "Revisiting the Impact of Market Requirements Focus on Manufacturing Performance: A Longitudinal Study of First-Tier Automotive Suppliers", with John McCreery, *Decision Sciences Institute Meeting* (1999).
- "A value-chain model of manufacturing systems: Capturing the effects of customization on organization design, technology choice, and performance objectives", with Lynda Aiman-Smith and John McCreery. *Academy of Management Meeting* (1999).
- "Assessing the accuracy of manufacturing cost systems using operations-based segments," with S. Edwards. *Decision Sciences Institute National Meeting and conference proceedings* (1997).
- "Configurations in operations strategy: A literature review and presentation of two empirical taxonomies," Symposium speaker at *Academy of Management National Meeting* (1997).
- "The relationship between manufacturing focus and performance: A study of plants in the automotive industry," with S. Edwards. *Decision Sciences Institute National Meeting and conference proceedings* (1996).
- "Configuration research in manufacturing strategy." Special session chair at *Decision Sciences Institute National Meeting* (1996).
- "An empirical test of the impact of market requirements focus on manufacturing characteristics focus and performance," with S. Edwards. *Academy of Management National Meeting* (1996).
- "Constrained vs. unconstrained global sourcing decisions: An exploratory study," with R. Handfield. *Academy of Management National Meeting* (1995).

"A contingency view of time-based competition in manufacturing operations," with S. Chapman. *Decision Sciences Institute National Meeting and conference proceedings*

(1994). "Configuration theory: Implications for manufacturing strategy research," with C. McDermott. *Academy of Management National Meeting* (1994).

"Managing supplier networks in global manufacturing environments," with R. Handfield. *INFORMS National Meeting* (1994).

"Developing time-based capabilities in manufacturing organizations," with S. Chapman. *INFORMS National meeting* (1994).

"Bliven Furniture Company." Decision Sciences Case Writers' Workshop session on Production / Management Sciences and conference proceedings (1993).

Cecil Bozarth "Analyzing the relationship between market / manufacturing congruence and manufacturing performance." *Decision Sciences Institute National Meeting and conference proceedings* (1992).

"Operations focus: An analytical framework." *Decision Sciences Institute National Meeting and conference proceedings* (1991).

"Riverside Press," with W. Berry. Decision Sciences Case Writers' Workshop session on Strategic Analysis and Decision-Making and conference proceedings (1991).

"Segmentation techniques applied to operations issues," with W. Berry. *Decision Sciences Institute National Meeting and conference proceedings* (1990).

Recent Research Projects

CAT DFOF (Design for Order Fulfillment), with J. McCreery and R. Handfield. The purpose of this study was to 1) identify the impact of new product design complexity on order fulfillment performance, and 2) mechanisms for controlling complexity in the new product development process. Reported out to CAT in Spring, 2007.

CAT Education Roadmap, with S. Edwards. The purpose of this study was to develop a model and tools for 1) identifying the education needs of SCM personnel, and 2) identifying and closing gaps within the various educational offerings opened to CAT. Two key deliverables were provided in 2006.

Invited Articles

Bozarth, C. (1994). Teaching business processes at NCSU. *Design Management Journal*, 5(4), pp. 35-38.

Guest Editorships

With Ken Boyer and Chris McDermott. *Journal of Operations Management* special issue on configurational research (2000).

Academy of Management special research forum on managing in the new millennium (2000).

Invited Presentations

"ERP systems and trends in supply chain-related IS investments", The Darden School, University of Virginia (2003).

"Supply chain management research and teaching at NC State's College of Management", Triangle APICS Chapter (2003).

"Aligning IT investments with SCM Efforts", Semi-annual Supply Chain Resource consortium conference (2003).

"OM past, present and future - Past chairs share their wisdom and counsel", OM Division 30th anniversary celebration, *Academy of Management Meeting* (2002).

"Integrating ERP systems into the classroom", Workshop on teaching supply chain management. The Darden School, University of Virginia (2001).

"Performance implications of matching global supply chain strategies to the business environment." 7th Annual APICS E&R Foundation Summer Academic / Practitioner Workshop on "E-Commerce: The Role of Education and Research", St. Louis (2000).

"A value-chain model of manufacturing systems: Capturing the effects of customization on organization design, technology choice, and performance objectives." Kenan-Flagler Business School, University of North Carolina at Chapel Hill (1999).

"Measuring performance & focus in the strategy process." *Annual meeting of the Production and Operations Management Society* (1999).

"The growing importance of supply chains." *Triangle Quality Council* (1997).

"The development of global purchasing networks." *Forum for Competitive Advantage* (1995).

Published Interviews

"More pencils, books forecast in supply chain: Academic and corporate supply chain organizations partner to prepare the managers of tomorrow' by Maria Varmazis, *Purchasing*. September 1, 2005.

"Parts makers rev up an economic engine" by Alex McMillan, *Business North Carolina*, October, 1996.

Funded Research Projects

CAT DFOF (Design for Order Fulfillment), with J. McCreery and R. Handfield (2006).

CAT Education Roadmap, with S. Edwards (2006).

"Performance implications of matching global supply chain strategies to the business environment", with Ajay Das and Rob Handfield. Research project funded by APICS (1999 - 2000)

"The impact of MicroElectroMechanical systems (MEMS) on the Textile Industry," with S. Chapman and G. Hodge. Research project funded by MCNC (1995).

"Manufacturing focus in North Carolina automotive-related plants." Research funded by NCSU Faculty Development and Research Grant program (1995).

Other Scholarly Contributions

Bozarth, C. (1994). Teaching business processes at NCSU. *Design Management Journal*, 5(4), pp. 35-38.

Preparation of instructors' manual for the third edition of *Manufacturing Planning and Control Systems*, by T. Vollman, W. Berry, and C. Whybark, 1992.

"Riverside Press," with W. Berry and T. Hill. *Production / Operations Management* by Terry Hill, 1991.

Scholarly and Professional Recognition

Leadership

- Division Chair, Operations Management Division of the Academy of Management (1999-2000)
- Program Chair, Operations Management Division, Academy of Management National Meeting (1998).
- Education Chair, Tarheel Chapter of the Council of Logistics Management (1997- 2000).
- Secretary and Newsletter Editor for the Operations Management Division, Academy of Management (1994- 1997).

Editorial Positions

- Associate Editor, *Journal of Operations Management* (1998 -).
- Editorial Review Board, *Decision Sciences Journal of Innovative Education* (2001 - 2008)
- Guest Editor, *Journal of Operations Management* (2000).

Professional Recognition Awards

- Academy of Outstanding Teachers (2008)
- Award for excellence in undergraduate and graduate teaching, Business Management Department (2002).
- NCSU College of Management outstanding teaching award nominee (1996, 1997, 2001, 2003, 2005, 2008).
- 2001 Apex Award for Education and Information Video and Electronic Publications for a CD-based course on "Advanced Supply Chain Management" for APICS
- Recognized by APICS as a Subject Matter Expert (SME) in the area of Supply Chain Management.
- APICS Certificate of Recognition (1998).

Scholarly Recognition / Awards

- AACSB National Doctoral Fellowship Program Honorable Mention (1988).
- UNC Business School Merit Assistantship (1988).
- Honorary Societies: Phi Eta Sigma (1981), Beta Gamma Sigma (1984), Alpha Iota Delta (1988).

Reviewer Positions

- *Journal of Operations Management*
- *Decision Sciences*
- *Production & Operations Management Journal*
- *International Journal of Operations and Production Management*
- *International Journal of Production Economics*
- *Transportation Sciences*
- *Omega*
- Decision Sciences Institute (DSI) National Meeting
- Academy of Management National Meeting
- Institute for Operations Research & Management Science (INFORMS) National Meeting

Professional Society Memberships

- Academy of Management (AOM)
- American Production and Inventory Control Society (APICS)
- Decision Sciences Institute (DSI)
- Production and Operations Management Society (POMS)

Selected Outreach Activities

- **IMD and Deloitte Touche Tohmatsu.** In 2009, developed a course for DTT consultants covering the fundamental aspects of organization structure, performance measurement systems, and business process management.
- **BlueCross BlueShield of North Carolina.** Through the College of Management's executive education program, developed and am teaching in 2008 and 2009 three 6-day courses on service operations management to BCBSNC managers, directors and vice president. In addition, in 2009, developed and taught a service operations course to BCBSNC team leaders.
- **Caterpillar.** Project leader on a project aimed at developing an education roadmap for CAT's BCP Division (2005 -).

- **GSK.** Developed and taught a distance education course in Collaborative Planning, Forecasting and Replenishment (CPFR) for GSK's CPFR group (2005).
- **GSK.** With the assistance of graduate students in the BUS 572 course, performed an assessment of the information flows supporting the CPFR Group (2004).
- **Bayer Biological Products.** Worked with management team to develop a strategy for implementing Sales & Operations Planning process within the business unit (2003).
- **Duke Power, Progress Energy, and Sonoco.** With the assistance of graduate students in the BUS 572 course, did a detailed assessment of the ERP decision and implementation processes at the above three firms. Results were shared with management via customized reports (2002).
- **GKN.** Performed analysis of consolidated distribution center strategy for AI Division (2001).
- **ABB T&D Division.** Helped develop and implement a manufacturing strategy development tool for an ABB internal consulting group (2001)
- **Bayer Pharmaceuticals.** Taught course in operations management to first-line managers (2000).
- Provided tailored research findings to 19 companies participating in study on manufacturing focus in North Carolina automotive-related plants (1 995).
- **Troxler Electronic Laboratories.** Provided management with a strategic and financial evaluation of a capital purchasing decision in the manufacturing area (1 994).
- **Timberlyne Cabinet Company.** Studied the impact of changes in the manufacturing process on the customer base (1993).
- **Daimler Benz.** At the request of the North Carolina Chamber of Commerce, estimated inbound logistics cost for potential site in Greensboro, NC. Results were presented and given to Dairnler Benz representatives (1993).
- **IBM.** Taught two sections of the "Introduction to Operations Management" to IBM employees as part of NCSUIIBM degree program (1992-1993).
- **Ford Motor Company.** Prepared a report on the current state of time-based competition in manufacturing for Ford-ALPHA, an executive-level planning and development group (1990).

Selected Committee, Administrative, and Special Assignments

- Undergraduate Curriculum Committee (2006 -; Chair 2008 -)
- AACSB College Committee representative
- COM Committee defining AACSB standards for academically qualified faculty (2006).
- Area Coordinator, Department of Business Management (2003 - 2005)
- Business Management Strategic Planning Committee (2003 - 2005)
- Taskforce member, proposal to Sloan Foundation for a NCSU-based furniture industry center (2002).
- Graduate Symposium track chair (2002)
- AACSB committee (1999-2000).
- College curriculum committee (1998-2000, chair 1999-2000).
- MSM curriculum committee (1994-96, chair 1995-96).
- Department undergraduate curriculum committee (1993-94, 1998-2001, chair 1998-2000).
- University Subcommittee on Scholarly Communication, University Library Committee (1997-1999).
- Project 25 Steering Committee (1997- 1998).
- University-wide subcommittee on University Effectiveness (1 992- 1993).

Selected Teaching Activities /Course Improvement Efforts

- 1st instructor in the region to integrate actual ERP system into course (2000).
- Developed the COM's first process-oriented business course (BUS 201, 1994).
- One of first two instructors in COM to offer completely web-based business course (1997).
- As part of an APICS-appointed team, developed gratis a CD-based course on Advanced Supply Chain Management (1998-2001).

Academic Advising Activities

Served as a chair or faculty advisor for the following:

Nirmit Desai, Ph.D. in Computer Science (2008)
 Gaurav Shah, IMSE (2006)
 Pratik Jhanb, IMSE (2006)
 Sanjiv Raman, IMSE (2006)
 Tim Trainor, Ph.D. in Industrial Engineering (2000)
 Lashawnda Mckinnon, Master of Textiles (2000)
 Stefan Kuehnen, Masters of Textiles (1999)
 Chris Carnpagna Master of Science in Management (1997; Practicum chair)
 Gino Camphanolo, Master of Textiles (1994)
 Steve Edwards, Master of Science in Management (1996)
 Mark Fuqua, Master of Science in Management (1994)
 Bibi Haddad, Master of Science in Management (1993)

Helmut Hergeth Master of Textiles (1993)

Jim Kardos, Master of Science in Management (1996; Practicum chair)

Zahkia Serhau, Master of Science in Management (1997; Practicum chair)

Jim Springer, Master of Science in Management (1995; Thesis chair)

Stephen Vanderhood, Master of Science in Management (1993)