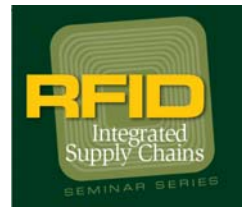


Schedule of Events



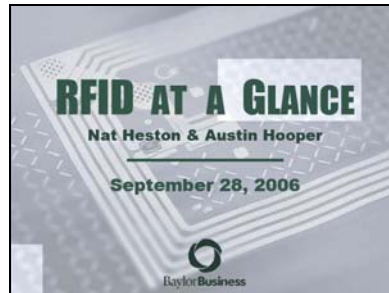
[2006 RFID Seminar Series \(Video\)](#)

Thursday, September 28

Registration & Continental Breakfast 8:00 – 9:00 am

Morning Session 1 9:00 – 10:00 am

Austin Hooper and William Heston
Baylor University



Yi Wang and Jay Lackmeyer
Baylor University



Break 10:00 – 10:15 am



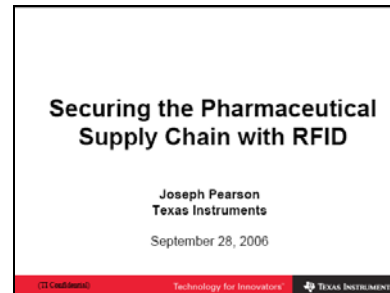
Morning Session 2

10:15 – 11:15 am

Dr. Madhav Pappu
*Assistant Professor, Industrial Distribution
Texas A&M*

“An Inventory Management and Item-Rental System: Using Radio Frequency Identification (RFID) For Gaining Improved Efficiencies”

Joseph Pearson
Texas Instruments



Lunch

11:30 am – 1:00 pm

Donald Berg
Sun Microsystems

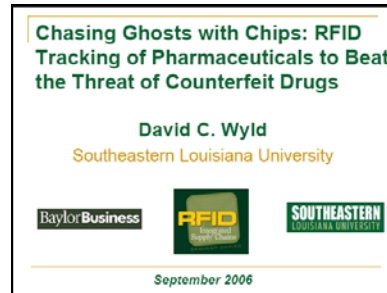


Thursday, September 28

Afternoon Session 1

1:15 – 2:15 pm

Dr. David C. Wyld
*Mayfield Professor of Management and
Director of the Strategic e-Commerce Initiative
Southeastern Louisiana University*



Mark Johnson
*President
RFID Tribe*

“Global Data Synchronization, RFID and
Integrated Supply Chains”

Break

2:15 – 2:30 pm

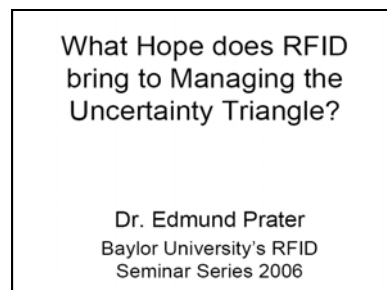
Afternoon Session 2

2:30 – 4:00 pm

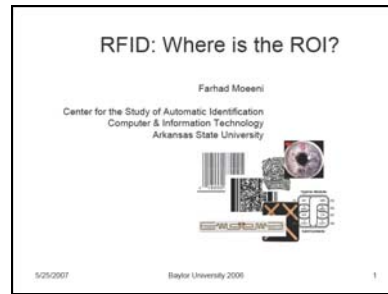
Jeremiah Marks
Baylor University

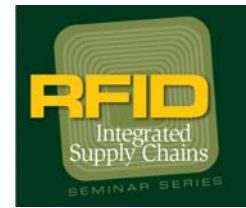


Dr. Edmund Prater
*Assistant Professor of Operations
Management, Director of the UTA/THR
Medical Mini MBA and the Associate Director
of the Health Education Research Center
(HERC)
The University of Texas at Arlington*



Dr. Farhad Moeeni
*Associate Professor of Operations and
Information Systems and Director of the
Center for the Study of Automatic
Identification
Arkansas State University*





Friday, September 29

Registration & Continental Breakfast *8:00 – 9:00 am*

Morning Session 1 *9:00 – 10:00 am*

Kurt Wall “Inland Ports Solutions”
Chairman, President, & Co-Founder
The National RFID Center

Dr. Thomas Chen
Research Professor and Undergraduate
Academic Advisor of Industrial Engineering
Department
University of Houston



Break *10:00 – 10:15 am*

Morning Session 2 *10:15 – 11:15 am*

Dr. Liam O’Neill "RFID, Stochastic Dominance, DEA, and
Assistant Professor of Health Systems decision analysis"
University of North Texas

Sherry Avery
Ph.D. Student
The University of Texas at Arlington





Lunch

11:30 am – 1:00 pm

Dale Robertson
Texas Workforce Commission

Closing Remarks

1:00 – 1:15 pm

Lunch Keynote Speakers



Donald Berg

Sun Microsystems



Don Berg, Global Retail Industry Principal for Sun Microsystems, is focused on international business development within the world wide retail industry. He is chartered with identifying major industry trends and unique business requirements, and applying current solutions and emerging technologies to create differentiated value for his customers. Over the past four years, Don has led or been involved in the development of many RFID and Sensor implementations and solutions and in 2003, was one of the original strategists for the creation of Sun's Dallas RFID Test Center. He is an accomplished speaker and has delivered speeches and workshops around the world.

Dale A. Robertson

Workforce Business Services Department

Workforce Development Division

Texas Workforce Commission

Dale.Robertson@TWC.State.tx.us



Dale Robertson is a Manager in the Workforce Business Services Department of the Texas Workforce Commission in Austin, Texas. In his current position he and his team are responsible for connecting businesses with value added workforce solutions, including the development of customized training projects.

Mr. Robertson has over 15 years experience in the workforce development industry. He began his career as a Job Development Coordinator with SER Jobs for Progress - Austin, Texas in 1988. His work with the State of Texas began in 1992 and has primarily focused on services to businesses.

Mr. Robertson is a 1987 graduate of the University of Texas at Austin. He is married and has four beautiful children.

Program Chair



Dr. Pedro M. Reyes

Assistant Professor of Operations Management

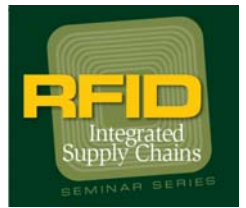
Baylor University

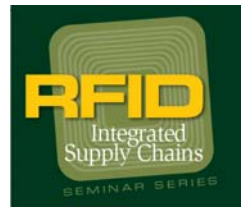
Pedro_Reyes@baylor.edu



Pedro M. Reyes is an Assistant Professor of Operations Management in the Hankamer School of Business, Baylor University. He received his Ph.D. in Operations Management, an MBA in Operations Management, an MS in Information Systems, and a BS in Mathematics from The University of Texas at Arlington (UTA). Dr. Reyes was recognized by UTA's College of Business as a *Lawrence Schkade Research Fellow* and is an affiliate of the *Sloan Industry Studies Program*. Research interests consist of the use of radio frequency identification (RFID) in Supply Chain and Logistics Operations and Operations Planning and Control Systems. Dr. Reyes' research has been published or accepted in numerous scholarly journals, including *European Journal of Operational Research*, *Decision Sciences Journal of Innovative Education*, *Journal of Supply Chain Management*, *Production and Inventory Management Journal*, *Applied Mathematics and Computation*, *International Journal of Integrated Supply Management*, *Supply Chain Management: An International Journal*, and *International Entrepreneurship and Management Journal*; and serves on the Editorial Review Board for *Decision Sciences*, *International Journal of Integrated Supply Management*, *International Entrepreneurship and Management Journal*, and *International Journal of Intercultural Information Management*.

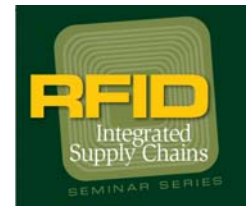
Prior to academia career, Dr. Reyes worked over 20 years in Operations Management. His professional roles include Supply Chain Coordinator, Materials Manager, Production Manager, Production and Inventory Control Manager, and General Manager. He has also served as Project Manager and on Project Management Teams for ISO 9000 certifications, improving global supply chain production and inventory planning processes, and implementing ERP software packages, such as *i2*, SAP and Oracle.





**Author Biographies
&
Presentation Abstracts**

Dr. Madhav Pappu
Assistant Professor, Industrial Distribution
Texas A&M
Pappu@entc.tamu.edu



Madhav Pappu is currently an Assistant Professor in the Department of Engineering Technology & Industrial Distribution, at Texas A&M University, College Station, Texas. He has a Doctorate in Logistics & Transportation and an MBA in Strategic Management from The University of Tennessee, Knoxville, TN, a Masters in Civil Engineering (Transportation) from Virginia Tech, Blacksburg, VA and a Bachelors Degree in Mechanical Engineering, from Andhra University, India.

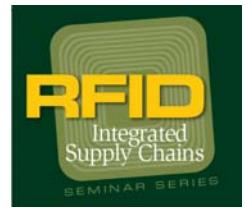
Prior to a career in academia, Dr. Pappu worked for over eight years in the maritime industry, and has developed extensive experience and knowledge of ocean transportation and intermodal systems and port operations. As a faculty member of the Industrial Distribution Program and Thomas and Joan Read Center for Distribution Research and Education, he is involved in Graduate, Undergraduate, and Professional Continuing Education teaching activities, funded research projects, and journal publications (such as *Transportation Journal*, *Journal of Marketing Channels* and *The Journal of International Consumer Marketing*). His research has been presented both nationally at conferences such as the International Intermodal Expo and the Annual Transportation Management Conference, and international forums such as the International Purchasing & Supply Education & Research Association (IPSERA) and the Millennium Seminar of the Institute of Marine Engineers (India). He is a frequent speaker for distribution associations and private firms on topics ranging from logistics strategies for distribution channels to RFID in integrated supply chains, and has given invited talks to several audiences, including the National Association of Hoses and Accessories Distributors (NAHAD), Industrial Supply Association (ISA), IDI (Canada), The U.S-Mexico Chamber of Commerce, The Transportation Club of Dallas, and Competitividad a Traves de la Logistica de Transporte, La Paz, Bolivia.

He has worked on many large industry projects, generating hundreds of thousands in funding for the University and its students. His major initiatives include the establishment of the *RFiD in Distribution (RFiD2) Laboratory*, and the *Independent Distributor Forum (IDF)*. These initiatives have enjoyed high visibility and enormous success in increasing the understanding of RFiD and other Auto-ID technologies in distribution systems, and in forging significant strategic partnerships with industry-members.

An Inventory Management and Item-Rental System: Using Radio Frequency Identification (RFiD) For Gaining Improved Efficiencies

In Fall 2004, the Military Property Warehouse (MPW) approached the Industrial Distribution Program, at Texas A&M University, with problems concerning their inventory management system. They were looking for a complete solution – one which would not only keep an accurate track of the all the items they held (consisting mainly of cadet uniforms), but perform other functions as well, such as assessing value of salvage items, reporting and item-level tracking. Following a detailed analysis of their existing system, several solutions were offered – including Radio Frequency Identification (RFiD) and bar-coding. This presentation will detail the entire process from start to finish. In the process details about the hardware selection and testing process, software development and implementation will be discussed.

Joseph Pearson
Business Development Manager
Texas Instruments RFid Systems



Joseph Pearson is the pharmaceutical business development manager for Texas Instruments RFid Systems. In his 15 years in the RFID market at TI, he has held a variety of sales, marketing, and business development roles. He was instrumental in the development of several RFID patents including the ExxonMobil Speedpass™.

Securing the Pharmaceutical Supply Chain with RFID

The pharmaceutical industry is addressing the very real threat to patient safety from counterfeit medicines. This presentation will show how authenticated radio frequency identification (RFID) offers an advanced way to combat the problem of counterfeit and compromised drugs, increase the security of the pharmaceutical supply chain, and ultimately improve patient safety. This approach combines globally accepted and deployed standards for RFID and Public-key infrastructure (PKI) technologies. The result is elevated confidence in the security of the pharmaceutical supply chain as item-level authentication is combined with validated chain-of-custody transactions.

Attendees will benefit from the following learning objectives:

- How to authenticate product off-network (without internet availability)
- What is PKI and how it can work with RFID
- Piloting with RFID and PKI

Dr. David C. Wyld
Maurin Professor of Management
Director of the Strategic e-Commerce/e-Government Initiative
Southeastern Louisiana University
dwyld@selu.edu



David C. Wyld (dwyld@selu.edu) is the Robert Maurin Professor of Management at Southeastern Louisiana University, where he directs the College of Business' Strategic e-Commerce/e-Government Initiative and teaches Business Strategy. He is a noted RFID speaker/consultant/writer, being a frequent contributor to Global Identification, RFID News and other industry publications. He is also the author of the recent research report, "RFID: The Right Frequency for Government," the most downloaded report in the history of the IBM Center for the Business of Government. The complete report can be downloaded free of charge from the IBM Center's website at: http://www.businessofgovernment.org/main/publications/grant_reports/details/index.asp?gid=232.

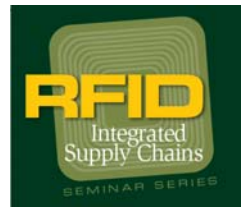
Chasing Ghosts with Chips: RFID Tracking of Pharmaceuticals to Beat the Threat of Counterfeit Drugs

The World Health Organization (WHO) estimates that as much as 10% of the global pharmaceutical market – a half-trillion-dollar marketplace - is counterfeit. The WHO estimates that in some countries, a 25% or more of the entire drug supply is counterfeit. The New York City-based Center for Medicines in the Public Interest recently predicted that by 2010, counterfeit drug sales will reach \$75 billion worldwide, almost doubling from the estimated counterfeit sales in 2005. While fake pharmaceuticals are not nearly as common in the U.S. as abroad at the present time, the threat of counterfeit drugs is becoming very real in the United States. The FDA's investigations of counterfeit medicines have increased by almost ten fold since 2000. Even the FDA's most conservative estimate - that approximately one percent of our nation's drug supply is counterfeit – amounts to some 35 million prescriptions a year. The FBI (Federal Bureau of Investigation) estimates that the financial impact on U.S. companies caused by counterfeit drugs is \$30 billion a year.

In this presentation, we will:

- Explore the scope and severity of the counterfeit drug problem, both in the U.S. and worldwide;
- Look at the impact of counterfeit medicines on both public health and the health of corporate bottom-lines;
- Appraise the early implementations of RFID tagging of pharmaceuticals by market leaders such as Pfizer, Purdue Pharma, and GlaxoSmithKline;
- Examine which drugs most need protection from counterfeiting and the criteria that should be used to select drugs for protection;
- Consider how RFID tagging will prevent counterfeit drugs from entering the drug supply from outside the normal chain of distribution;
- Analyze the economics of RFID in the pharmaceutical sector and the ROI issues;
- Be updated on the status of RFID pharmaceutical labeling legislation pending before Congress;
- Address the privacy concerns that are unique to pharmaceutical labeling; and
- Look at the overall value proposition for RFID and its potential use in the pharmaceutical supply chain.

Mark Johnson
President
RFID Tribe
mark.johnson@rfidtribe.com



Mark Johnson, RFID Tribe President, has served in leadership roles as CFO and COO for software, information technology, consumer electronics, telecommunications and supply chain businesses at Texas Instruments, Alcatel and DHL. Mark advises companies in the technology space, consults on RFID projects and frequently speaks at conferences focused on RFID and sensor technology.

RFID Tribe, a global organization with local chapters, is the world's association for radio frequency identification professionals. The group of industry experts collaborates on RFID and sensor technology, standards, venture capital, products, applications, industry trends, people and events. RFID Tribe serves as an engine for ideas, people and capital. RFID Tribe, The World's Association for RFID Professionals, may be found at www.rfidtribe.org

Global Data Synchronization, RFID and Integrated Supply Chains

Supply chains are increasingly integrated as firms standardize data and share data. Consider standard data and standard data elements shared between trading partners. Learn about the effects of global data synchronization (GDS), repositories for global data and about GDS networks. Consider the effect of RFID adoption and global data synchronization on supply chain networks.

Dr. Edmund Prater
*Assistant Professor of Operations Management,
Director of the UTA/THR Medical Mini MBA
Associate Director of the Health Education Research Center
The University of Texas at Arlington*
eprater@uta.edu



Edmund Prater is an assistant professor of Operations Management in the College of Business Administration at the University of Texas, Arlington. He received his Ph.D. in Operations Management from the Georgia Institute of Technology. He also holds a B.S. in Electrical Engineering from Tennessee Technology University and M.S. degrees in both Electrical Engineering and Systems Analysis from Georgia Tech. His interests in international supply chains derive from the fact that previous to obtaining his Ph.D., he operated an import/export firm with offices in Moscow and Saint Petersburg, Russia. His other interests are in Health Care operations. He is currently the Director of the UTA/THR Medical Mini MBA and the Associate Director of the Health Education Research Center (HERC) at UTA.

What Hope does RFID bring to Managing the Uncertainty Triangle within International Supply Chains?"

The uncertainty triangle is composed of amplification (or bullwhip) effects, parallel supply chain uncertainty, and deterministic chaos. During the late 1990's researchers began to identify how these uncertainty effects interacted with each other and the supply chain as a whole. With the advent of RFID, supply chain managers have the opportunity to track product with far greater granularity than ever before. While this has distinct advantages, it can also exasperate the uncertainty triangle. We will identify the state of the art in theory and practice and assess what RFID brings to the table.

Dr. Farhad Moeeni
Associate Professor of Operations and Information Systems
Director of the Center for the Study of Automatic Identification
Arkansas State University
moeeni@astate.edu

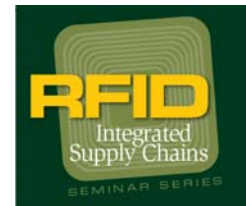


Farhad Moeeni is an associate professor of operations and information systems and the founding Director of the Center for the Study of Automatic Identification at Arkansas State University. He holds a M.S. in industrial engineering and a Ph.D. in operations management and information systems, both from the University of Arizona. His articles appeared in various outlets including *Decision Sciences journal*, *International Transactions in Operational Research*, *International Journal of Production Research*, *Southwestern Economic Review*, *International Journal of Production Economics*, *Journal of Information Systems Education*, and *Decision Line*. Dr. Moeeni is the 2005 recipient of the College of Business “Frank Bigger Award for Excellence in Professional Service” and multiple research grants from the Horizon Institute of Technology and other sources. He has been invited twice as a guest lecturer in Information Systems by the “Centre Franco Americain”, University of Caen, France. Research interests are currently in the design and analysis of integrated operational-level information system and, automatic identification. Dr. Moeeni has been actively promoting the importance of automatic identification (auto-id) technologies among business schools through articles and conference workshops. In that regard, he developed a course in “automatic identification” and has been teaching it as part of the MIS program at Arkansas State University since 2000. He is currently the principle investigator (PI) of a multi-university research project funded by Arkansas Science and Technology Authority (ASTA) for investigating the potential applications of identification technologies for food and agricultural products tracking and tracing as well as for personal identity assurance. Farhad is certified in RFID+.

RFID: Where is the ROI

The advantage of bar coding over manual data entry is rather obvious and hence making a business case for bar coding should have been fairly straightforward but it took years for many companies to adopt bar coding. Some suppliers even were forced by their customers (e.g. retailers) to affix barcode labels on products. On the other hand, making a business case for RFID may not be so obvious as long as RFID tries to unseat bar coding. That is why the majority of supply-chain implementations of RFID have been mandated by mega customers. As a result, most suppliers have adopted a “slap-n-ship” policy just to comply with customers’ demand. This session will shed some light on questions such as how would the RFID technology evolve, will RFID offer a strategic advantage for adopters, and where the ROI is.

Kurt Wall
Chairman, President, & Co-Founder
The National RFID Center
KurtWall@USAact.com
KurtWall@Nationalrfid.com



Kurt J. Wall is the President and Chief Operating Officer of The Accelerator for Convergent Technologies, LLC. (www.USAact.com) and the President and Chief Executive Officer of National RFID Center, LLC. (www.NationalRFID.com), in Arlington, TX, inside UTA (The University of Texas at Arlington) ATI Building, guiding the company to becoming a pioneer in Accelerating Technologies of the Future in a systematic, strategic, format to Commercialization.

Kurt Wall is an authority in the Angle Investment Groups and Venture Capital Groups for over 12 years in the technology commercialization and business management. He has helped Companies Boot Strap their way to success and has recommended on occasion having VC money brought online to help spur the Companies efforts to win their goals and successes. Mr. Wall has extensive contacts in the U.S., Europe, and the Far East.

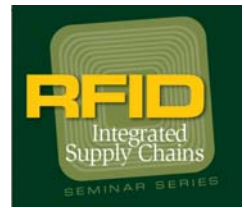
Mr. Wall Served as an affiliate (Scout) in 1994 to 2002, as an Investor or Advisor to numerous Venture Capital Firms and Angel Investment Groups--Including but not limited to Merrill Lynch Angels of Dallas, Chapman Hext North Dallas Investment Group, Dallas Angels, Akin Gump Investment Group, The Texas Angels in Austin, the HTC Houston Technology Center -Angels, the Arizona Angels, Koch Ventures, V-Capital, HP Ventures, Intel Ventures, Austin Ventures, Encore Venture Partners, IBM, Vortex Partners, HO2 Investments, Silicon Valley Bank.

Wall left this successful effort and Co-Founded the National RFID Center and the Accelerator for Convergent Technologies. The National RFID Center in Dallas and in Arlington Texas is the Spring Board of Unusual problem solving in RFID, Sensors, Robots, and GPS. It is the Hallmark of Communications for a vertical called Inland Ports and Ports of Entry Specialists. The National RFID Center has an awareness of over 3,400 Inventors and specialist in this space with over 24,000 on the email list. The Accelerator for Convergent Technologies (ACT) is an ACCELERATOR, that was built on problem solving on a System to System (S-S) and Machine to Machine (M+M) Approach.

Inland Ports Solutions

Using Radio Frequency Identification (RFid) For Gaining Improved Efficiencies / and / Secret given out at this seminar for the 1st time / the Container of the prevent answers to reading inside the Container and / the future Mesh Network with RFID/ Combinations

Dr. Thomas Chen
Research Professor of Industrial Engineering Department
University of Houston
tcchen@uh.edu



Dr. Chen has twenty-five plus years of experience as a computer, telecommunication and industrial engineering consultant in a broad spectrum of industries, including manufacturing, distribution, oil and gas, finance, aerospace & defense and computer networking. Dr. Chen has spent last ten years in the research and development of wireless communication, RFID (Radio Frequency Identification), wireless sensor, and supply chain management related technologies and applications.

Dr. Chen is currently the Research Professor and Undergraduate Academic Advisor of Industrial Engineering Department at University of Houston. He is a Manufacturing/eBusiness/Supply Chain Management Specialist at the Texas Manufacturing Assistance Center (TMAC). He is also the Director of RFID and Sensor Research Laboratory, which focuses on the research and development of RFID and sensor related technologies and application in areas of supply chain management, food safety, public safety and homeland security.

Dr. Chen is currently also the President of TriNet Communications, Inc. TriNet Communications develops intelligent RFID and wireless sensor network (WNS) hardware and software for smart building and smart hospital related applications.

Web-based Realtime Intelligent RFID and Sensor Data Acquisition, Monitoring and Exchange System

In 2005, Texas A&M University System and University of Houston teamed up with the Chinese Ministry of Science and Technology (MOST) to start an “Initiative on Technology Demonstration of Green Commodity Flow Systems Platform”. The goal of this initiative is to accelerate the flow of safe and quality foods and other agro-products in China, and between China and its trade partners through the means of science and technology. The development of “Web-based Realtime Intelligent RFID and Sensor Data Acquisition, Monitoring and Exchange System” prototype is a part of this goal which has the two major objectives: a) to identify and study emerging technologies and devices, such as RFID and wireless sensor network, that can be used in the Information and Communication Technology (ICT) platform, b) to develop and demonstrate a system prototype for specifying and testing functional requirements of future ICT platform. The system prototype consists of three components: 1) Data Acquisition Subsystem, 2) Data Monitoring Subsystem, and 3) Data Exchange Subsystem, and was demonstrated at the “China – U.S. Relations Conference” held in Beijing, China, November 2005.

Dr. Liam O'Neill
Assistant Professor of Health Systems
University of North Texas
loneill@hsc.unt.edu

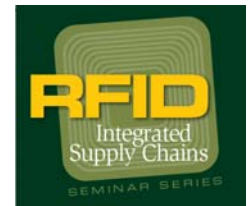


Liam O'Neill is Assistant Professor of Health Systems at the University of North Texas School of Public Health. He received his Ph.D. in operations management from Penn State University and an MS in operations research from the University of North Carolina. His dissertation on Data Envelopment Analysis (DEA) in health care won the Production and Operations Management (POMS) award in 1997. He has taught previously at Cornell University and the University of Iowa. His recent research focuses on the use of RFID and electronic medical records to improve health care quality and efficiency. He has also done research on Supply Chain Management in health care, such as by applying MRP to improve hospital inventory management. His research papers have appeared in numerous scholarly journals, including *Management Science*, *Naval Research Logistics*, *Health Care Management Science*, and *Socio-Economic Planning Sciences*. He serves on the Editorial Review Board of *Health Care Management Science*.

The Effect of RFID on Inventory Management and Control

Our thesis is that the evolution of information technology (IT) facilitates the flow of information, which in turn may reduce the variance of an inventory system, and hence its cost. We use Radio Frequency Identification (RFID) as a paradigm. RFID is the latest application of IT to the tracking of goods and services or anything for that matter, including human beings. It is an evolution from barcode and palette technology, and, in this paper, we present the argument that RFID is superior in reducing the mean and variance of inventory cycle times. As inventory cost is a function of these (among other variables, such as unit holding and shortage costs), we show that RFID reduces this cost. Also, because RFID leads to rapid transmission of data, it would help avoid excessive inventories and shortages, further reducing total inventory cost. We argue that RFID is superior to existing identification technologies according to mean-variance stochastic dominance. We show how Data Envelopment Analysis (DEA) can be used to assess the performance of suppliers and to assess the impact of RFID. Some emerging and potential applications of RFID in health care are presented.

Sherry Avery
Ph.D. Student
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Sherry Avery is a Lecturer and PhD student at The University of Texas at Arlington. She has twenty years industry experience. She is specializing in Operations Management with a minor in Management. Mrs. Avery holds a BS in Business Education from the University of Central Oklahoma and a Masters of Accountancy from the University of Oklahoma. Her research interests include RFID, performance metrics, and the service industry.

RFID: Impact on Financial Performance

Companies implement RFID (Radio Frequency Identification Devices) for two major reasons: (1) mandates from their large retailer customers, like Wal-Mart or Target, and (2) improved profitability through increased sales and reduced costs. The financial benefits are widely debated across the supply chain industry. There are significant start up costs in terms of hardware and software. There is also a potential for substantial benefits by reducing labor and inventory costs and increasing sales by improving customer service through eliminating stock outs and providing detailed data for marketing campaigns.

This paper examines the financial impact of implementing RFID. 12 standard financial metrics (for example ROA) were used to compare financial performance for firms that have and have not implemented RFID over a three year time frame. There were no clear cut trends in overall performance. In general, non-RFID firms performed better than RFID firms in productivity and profitability. RFID firms performed better in cost efficiency and debt management.



Baylor University Students

Graduate Students

David Yi Wang

Master of Science in Information Systems

Graduation Date: December, 2006

Jay Lackmeyer

Master of Science in Information Systems

Graduation Date: December, 2006

Undergraduate Students

Jeremiah Marks

Major: Entrepreneurship

Graduation Date: December 2006

Austin Hooper

Entrepreneurship and Operations Management

Graduation Date: December 2006

William Heston

Operations Management & Real Estate

Graduation Date: December 2006.

Acknowledgements

I wish to express my gratitude to all those that helped make this program a success.

Dean's Office

Department of Management and Entrepreneurship

Casey Computer Center

Manuja Baral, my graduate research assistant