Supplier Relationship Management in Multiple Supply Chains

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Supplier Relationship Management (SRM) is an approach for identifying strategic suppliers via some optimization and management methodologies with applications that can lead to breakthrough improvements in cost, quality, service and technology, and increased shareholder value for all partner firms.

In this era of globalization, an organization’s suppliers can be located in any part of the world. Each of these suppliers may employ other suppliers having similar geographical divergence. This type of multi-layer and complex supplier network system has created a great and growing need for the development of new methods and techniques for SRM, particularly those techniques and methods that can engender or enhance the visibility of lower-tier suppliers.

Traditionally, organizations have always focused their SRM efforts on their first-tier or direct suppliers. As a result, the lower tier suppliers are totally taken out of focus. This has been a major cause of many of the serious supply-chain related problems being faced by many organizations today. The focus of this research is on the development of a process by which organizations can effectively manage suppliers in multi-tier supplier environments in order to continuously have clear visibilities of all tier suppliers. The major tasks of the project include:

- Development of some integrated and computerized SRM models that can be used by managers in selecting and stratifying suppliers and in continuously assessing and monitoring their (the suppliers’) performances.
- Development of some standardized templates for monitoring and collecting information on all suppliers in a multi-tier supplier network systems in order to continually engender their visibility.
- Development of a decision support system that can be used by all tier suppliers for effectively and efficiently storing, accessing, and sharing information in a multi-tier supplier network environment.

Remarkable progress has been made in the achievements of these tasks.

Three students have benefited from the project via appointments as graduate and research assistants. One of the students enjoyed tuition waiver for three full semesters under the project. At least two students will benefit from the project this fall semester 2010. One will be given a graduate assistantship (with tuition waiver) while the other will be given the research assistantship.

INVESTIGATORS

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SUMMARY
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Dr. Olorunniwo is a Professor of Operations and Supply Chain Management and the Head of Department of Business Administration at Tennessee State University. He is formerly the Director of University of Tennessee at Martin’s Center for Quality and Productivity. He holds a doctorate degree in Operations Research (Management Science) from The University of Texas at Austin, M.S. in Industrial Engineering from Polytechnic Institute of New York University, and B.S. in Mechanical Engineering from the University of Lagos. His research and consulting interests are in service and manufacturing operations, supply chain management (including supplier relationship management and reverse logistics) and management of quality. Dr. Olorunniwo has taught and conducted research at the university level for over 20 years. He is the founding Chair of the Department of Industrial Engineering at the University of Ibadan, Nigeria, where he spearheaded the establishment of degree programs up to the doctoral level. Dr. Olorunniwo has consulted for several companies in Tennessee, Singapore, Malawi, Ukraine, and Nigeria. Twice a consultant to the United Nations Development Program, he has also published over 80 research articles in refereed journals and conference proceedings including, Production & Inventory Management Journal, International Journal of Production Research, and Journal of Operations Management.

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Dr. Chunxing Fan is an assistant professor of Supply Chain Management in the Department of Business Administration, College of Business, Tennessee State University. He received his MBA and doctorate with concentrations in Operations and Supply Chain Management from Rutgers University in New Jersey. His research focuses on supply chain and operations management, integrated production and distribution optimization, logistics and transportation network design, and resource/project management. He has published in the Journal of Operational Research Society, Transportation Research Part E: Logistics and Transportation Review, International Journal of Management & Enterprise Development, and many others.