The Strategic Intervention of Minority Small Manufacturing Enterprises In the Manufacturing Supply Chain

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A Program of the
South Carolina Manufacturing Extension Partnership
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FOREWORD

I have always been haunted by the fact that many minority communities continue to languish in cycles of poverty and poor quality of life. The civil rights movement has established the legal and policy foundation to build and develop minority communities. Although minorities collectively have made great strides socially and politically, many of our communities have not improved since the 1960s. Joshua I. Smith, the former chair of the U. S. Commission on Minority Business, under President Bush, came to the profound conclusion that, "Civil rights without economic strength is a borrowed event. It can be taken away at any time." Taking these problems into consideration, I began my search to identify a business sector that would act not only as the catalyst for economic development but would serve as the economic sustainer of these communities.

My interests in the nuances of small and medium sized minority manufacturing began as a graduate student at the Georgia Tech University. While at Tech, I concluded that manufacturing development in poor and minority communities was a viable way to achieve sustainable community development. It seemed obvious that this business type was well equipped to achieve this task because it pays living wages to low-and medium-skilled workers, accrues large capital returns to entrepreneurs and generates a multiplier effect in local economies. In addition, this sector creates a "manufacturing culture" in minority communities complete with suppliers, social, financial and educational institutions.

What I have learned through my research on Atlanta and nationally is: 1) minority manufacturing is a severely underdeveloped sector, especially in impoverished communities; 2) the development of manufacturing businesses is a very complicated process given the dynamics of the global economy, the sector's capital intensive nature, the skills and experience needed by entrepreneurs to prosper and develop, human resource development issues, technology use and transfer, real estate issues and others; and 3) there has been very little research on what is needed to develop the sector.

The Strategic Intervention of Minority Small Manufacturing Enterprises in the Manufacturing Supply Chain provides us with a much-needed practical and detailed road map toward the development of Minority Small Manufacturing Enterprises (MSMEs) through their integration into Original Equipment Manufacturers (OEM) supply chains. The ten discrete components laid out in this paper by David Burton of the South Carolina Manufacturing Extension Partnership (SCMEP) includes innovative and proven methods to garner MSME OEM supplier market share. Program components of note include the development of Internet-based information databases to allow OEMs to "look under the hood" of prospective suppliers, providing development assistance; and establishment of a capital development fund for increasing access to monetary resources. The SCMEP's model is a major and exciting departure from and expansion of the literature on MSME development It provides us with the means to nurture and develop diverse and balanced economies in "communities of the future," which are minority and sustainable.

There is a clear need for the establishment of a coordinated national program to implement this MSME/OEM strategy. We must work tirelessly to replicate this model on a national level to bring the vision of manufacturer centered economic development to fruition.

Goro O. Mitchell
Assistant Director, The Southern Center for Studies in Public Policy at Clark Atlanta University
May 3, 2000

AKNOWLEDGEMENTS

A special personal thanks to Goro Mitchell whose article, *"Black Manufacturing and Economic Development in Atlanta Georgia"*[*] served to inspire and solidify the need to develop the approach and strategies taken in this paper. As one experienced in economic development and small business issues, his article was a sobering reminder that we, as practitioners, stood to miss the "grand canyon" economic development in the minority community.

On behalf of the South Carolina Manufacturing Extension Partnership, I would like to thank a special group of South Carolina manufacturers who just happen to be minorities. Through these manufacturers, we have garnered an understanding of and insight into the unique and complicated issues which are faced by the minority manufacturer in this globally competitive arena.

Special thanks are extended to Johnny Mason of IST2 whose "in the trenches" experiences helped to germinate the idea of an initiative focused on assisting minorities in manufacturing. We would also like to express our gratitude to David Bellamy, President of Aerostar Industries who helped in the mobilization of a group of minority manufacturers who took time from their busy schedules to meet in a focus group to lay out the strategy found in this plan. Our appreciation is extended to Harry Pelzer, former owner of American Paper Company, whose experiences and lessons learned have served to influence the strategic approaches addressed in this plan.

To each of our participating minority manufacturing partners, we thank you for your efforts and sacrifice of time in support of this significant initiative.

David Burton AICP
Manager, Minority and Special Programs
South Carolina Manufacturing Extension Partnership

[*] The Status of Black Atlanta, The Southern Center for Studies in Public Policy, Clark University, 1998.

BIOGRAPHICAL SUMMARIES

David J. Burton

David J. Burton, is the developer of this paper and is Manager of the Minority and Special Programs at the South Carolina Manufacturing Extension Partnership (SCMEP). Burton is a member of the American Institute of Certified Planners (AICP) and has over twenty-five years of planning and economic development experience. A graduate of Morgan State University, Burton received his Masters of City and Regional planning from the University of Pennsylvania. Burton returned to South Carolina where he was Vice President of Planning and Development for the Harbison Development Corporation. Burton combined his development experience with an interest in small business development when he joined Control Data Corporation (CDC), pioneering the development of inner city Business and Technology Center incubators and community revitalization strategies. Burton served as Project Director, National Project Sales Representative for CDC where he was responsible for small business strategic programs and incubator development throughout the US. Burton started his own firm, Burton & Associates, Inc., which specialized in small business economic development programs, market research, and project feasibility studies. His clientele included major banking institutions, governmental agencies and private corporations. He joined the staff of the SCMEP in January 1999 to spearhead its minority manufacturing initiative.

John P. Irion

John P. Irion, Jr. is President of the SCMEP and has been actively involved with the organization since its inception in 1989. When SCMEP (formerly SMTC) was established, John was instrumental in implementing the program at Trident Technical College in Charleston, S.C. He then became Manufacturing Outreach Center Manager and subsequently, Manager of Programs and Alliances. He also has worked with numerous economic development groups across the state and holds a certificate from the South Carolina Governor's Economic Development School. John is a graduate of the University of South Carolina.

Carl M. (Chuck) Spangler, III

Chuck Spangler is SCMEP's Vice President of Field Operations. He is in charge of SCMEP's field staff of manufacturing and technical specialists stationed throughout the state. Chuck has over 14 years of experience in a variety of industries including textiles, hosiery, and tires. He has worked for SCMEP for the last five years and trains the field staff in the proper use of the SCMEP's Competitiveness Review™ assessment tool. He is currently involved in implementation of Constraints Management within several manufacturers and instructs on the subject. Chuck has a degree in Textile Management from the North Carolina State University.

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Acronyms

Acronym	Definition & Relevance as used within this Report
APICS	American Production and Inventory Control Society. Provides education to Resource Managers of manufacturing facilities in the U.S.
CRA	Community Reinvestment Act. The CRA creates depository institutions to help meet the credit needs of communities in which whey operate, including low- and moderate-income neighborhoods.
CR™	Competitiveness Review™ Assessment. An assessment process that was created by the SCMEP to collect key information on the business health of a small manufacturer and assess areas of improvement and create an improvement strategy.
ISO	International Standards Organization. The ISO creates standards by which companies from different countries can operate systematically.
ISO 9000	The International Standards Organization's standards pertaining to a company's quality systems.
ISO 14001	The International Standards Organization's standards pertaining to the management of environmental aspects of a business.

M/SMEs	Minority-owned Small Manufacturing Enterprises. Small manufacturing plants that employ fewer than 500 people at their facility, and are owned by an African American, Hispanic American, Native American, or Asian American.
MBDA	Minority Business Development Agency. A division of the U.S. Department of Commerce and tasked with providing, through a national network, business solutions to the Minority-owned businesses.
MBDC	Minority Business Development Center. A local office of the MBDA program.
MEP	Manufacturing Extension Partnership. A national network of Centers, funded through the U.S. Department of Commerce's National Institute of Standards and Technology to provide business and technical support to the nation's small manufacturers.
MRO	Maintenance, Repair, and Operations firms.
MS	Manufacturing Specialist. An Engineer, skilled in multiple manufacturing disciplines, employed by the Manufacturing Extension Program to provide hands-on assistance to manufacturers.
NAACP	National Association for the Advancement of Colored People.
NAM	National Association of Manufacturers. A national trade association for manufacturers, based in Washington, DC and known for their collection of indicator data on manufacturing during their annual manufacturing survey.
NMSDC	National Minority Suppliers Development Council.
OEMs	Original Equipment Manufacturers. Usually very large manufacturers that produce a final product. Examples are Ford Motor Company, General Motors, IBM, etc. They more often that not use a multitude of smaller (yet often large) manufacturers to produce parts or components for the final product.
QS	Automotive industry quality standards, which are more rigid and detailed than the ISO standards, and are specific to their industry.
SBA	Small Business Administration, a federal agency established to help create entrepreneurial businesses, by helping them to find financial resources and plan their business strategy.
SCM	Supply Chain Management. A common manufacturing practice is to hire suppliers for materials or for manufacturing components of the final product. There is a management practice of a manufacturer's supply chain, which has evolved significantly in the last few years.
SCMEP	South Carolina Manufacturing Extension Partnership. One of over 70 Centers in the U.S. that are non-profit and funded through the U.S. Department of Commerce for the purpose of assisting the nation's smaller manufacturers to become more competitive.
SMEs	Small Manufacturing Enterprises. Manufacturing plants that employ fewer than 500 people at their facility.

TAF	Technical Assistance Fund. A part of the SCMEP Minority Small Manufacturing Enterprises program will provide low- to no-interest loans to M/SMEs.
TOC	A logic-based practice used by SCMEP to affect change management in small manufacturers. Popularized by E. Goldratt.
Z-Score	A company's Z-Score is a financial ratio-based system used to determine a company's short-term potential for financial problems. Factors include: earnings before taxes, total assets, net sales, market value of equity, total liabilities, working capital, and retained earnings.

The Strategic Intervention of Minority Small Manufacturing Enterprises

In the Manufacturing Supply Chain

INTRODUCTION

Preface

The face of America is changing. We are becoming a more diverse populace. Populations that once were the Minority are becoming the majority.[1] The Minority population will account for nearly 90% of the total growth in the U. S. population from 1995-2050.[2] As was the case in recent years with the increased number of women in the work force and placing more focus on them – manufacturers, retailers, distributors, and service industries are rapidly beginning to respond to and target minorities.

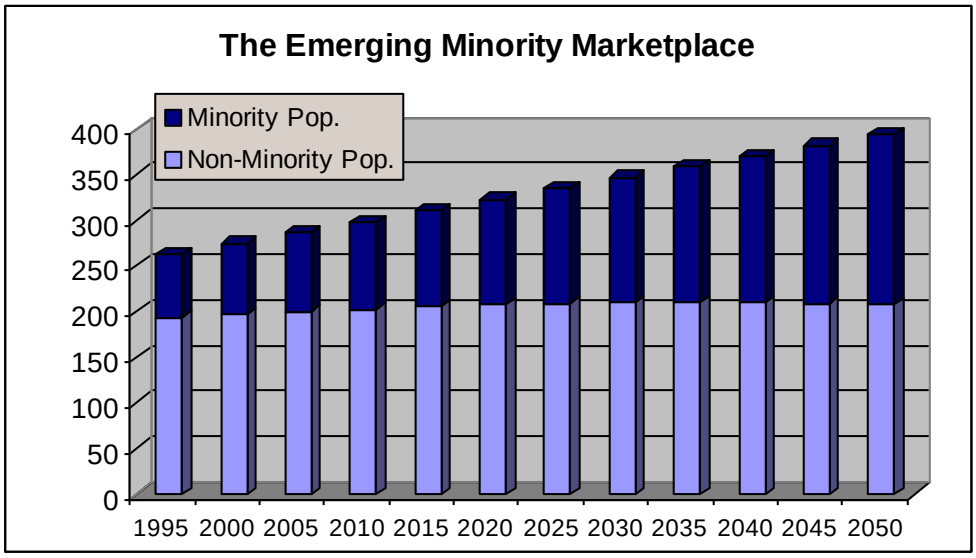


Figure 1. Projections of the Minority and Non-Minority Population of the U. S. (in Millions)

One such group of very large U. S. manufacturers (Original Equipment Manufacturers) facing changes brought about by domestic and global competition, have come to realize that alignment of their suppliers to match their emerging consumer base will have a positive impact on their long-term corporate strategies. Traditional approaches to create more Minority businesses to feed the Original Equipment Manufacturers' supplier demand have not met the Original Equipment Manufacturers' needs. Original Equipment Manufacturers need Minority-owned Small Manufacturing Enterprises as suppliers, and because of the start-up costs and other unique aspects of manufacturing, Minority-owned Small Manufacturing Enterprises need more assistance than other types of industries.

[1] NOTE: "Minority" refers to African American, Hispanic American, Native American, and Asian American.

[2] Wan He and Frank Hobbs, Minority Population Growth: 1995 to 2050, U. S. Department of Commerce Minority Business Development Agency, September 1999, page 1.

While the demand is high for Minority-owned Small Manufacturing Enterprises, the Original Equipment Manufacturers have expressed concerns about perceived and/or actual Minority-owned Small Manufacturing Enterprises' product quality, delivery, and costs. Changing the mindset of how we approach Minority-owned Small Manufacturing Enterprises' development and accelerating of the number of Minority Small Manufacturing Enterprises must become a national agenda.

The Manufacturing Extension Partnership program of the U.S. Department of Commerce's National Institute of Standards and Technology is well positioned to assist Original Equipment Manufacturers and Minority-owned Small Manufacturing Enterprises to find and implement solutions. It is the only nationwide network of centers and partner organizations that is focused on implementing manufacturing improvements. The South Carolina Manufacturing Extension Partnership proposes to work directly with Original Equipment Manufacturers and Minority-owned Small Manufacturing Enterprises in response to this need as a pilot for the rest of the nation to adopt.

Objective

The objective of this program is to build a reproducible platform that creates immediate opportunities for the growth of Minority-owned Small Manufacturing Enterprises.

This report has been prepared to: (1) summarize the current need for development of more Minority-owned Small Manufacturing Enterprises; (2) convey and invite comment on the viability of the approach proposed by the South Carolina Manufacturing Extension Partnership to support the intervention of Minority-owned Small Manufacturing Enterprises in the large and Original Equipment Manufacturer supply chain; and (3) encourage discussion on the need for a national program to support this objective.

Background

In the Fall of 1998, discussions at the South Carolina Manufacturing Extension Partnership (SCMEP) focused on the reasons why there were so few Minority-owned Small Manufacturing Enterprises (M/SMEs), not only in South Carolina, but nationally. When some research was conducted, SCMEP concluded that there were no national programs focused on developing Minority-owned manufacturing businesses, despite the fact that manufacturing is one of the primary sources of wealth creation in the United States. Thus, with the support of the U.S. Department of Commerce's National Institute of Standards and Technology, SCMEP embarked upon a pilot effort in January of 1999, focused within South Carolina, to:

- identify existing Minority-owned Small Manufacturing Enterprises (initially African-American);
- assess their capabilities and determine their need for development assistance;
- provide assistance to Minority-owned Small Manufacturing Enterprises in areas of internal quality, delivery, and cost systems;
- identify opportunities and mechanisms for the formation of new Minority-owned Small Manufacturing Enterprises; and
- develop financial resources for further program development.

As a result of this program's actions to date, there has been local and national deliberation regarding the unique requirements of the M/SMEs and the level of support required. These discussions have involved focus group meetings with M/SMEs, OEMs, state economic development officials, the U. S. Department of Commerce's Minority Business Development Agency, banking industry officials, local and national legislative officials, and others in an effort to assess program needs, share understanding, and develop resources for support. Central to the approach taken by the SCMEP is understanding the following key factors:

- changing manufacturing market dynamics and the impact of OEM's reinvention of their supply chain management;
- changes in the U.S. Minority consumer base and how OEM management of their supply chain is affected by this; and
- the significance of manufacturing in relation to wealth creation in America.

The SCMEP Perspective

Recognizing and leveraging these three factors, it is the position of the SCMEP that inclusion of Minority-owned Small Manufacturing Enterprises in the OEM Supply Chain can only be accomplished by accelerated public and private initiatives in order to:

- improve the product quality, delivery, and cost factors of existing Minority-owned Small Manufacturing Enterprises;
- effectively transfer new and acquired technologies and state-of-the-art strategic business initiatives; and
- facilitate the acquisitions of existing non-Minority owned Small Manufacturing Enterprises to create new Minority-owned Small Manufacturing Enterprises.

This paper places in context observations, findings, and other relevant factors affecting program development and demonstrates why a nationally coordinated program is mandated.

PROBLEM ANALYSIS

It has long been the expressed interest of some Original Equipment Manufacturers (OEMs) and their major manufacturing suppliers to involve Minority-owned firms. The drivers for such interest have historically fallen into one of the following categories: corporate social consciences, civil disturbances, Minority enterprise development, or federal procurement requirements. Corporate response has taken the form of various procurement-focused formats such as best efforts initiatives, percentage quotas, percentage set-asides, mentor-protégé, and others.

Although public and private programs have been instituted to directly and indirectly support Minority program implementation, the degrees of success of these programs have varied. With the one exception of mentor protégé program, this type of initiative (which we refer to as *Vertical Procurement Programs*[3]) emphasizes vertical integration of Minority firms in the OEM supply chain through opening doors to procurement opportunity. While these programs have their place, SCMEP believes that today's economic drivers are different and that such programs alone have not and will not be able to provide the quality and level of response needed by OEM supply chain demand. While the supply chain needs of OEMs generate potential opportunity for M/SMEs, those M/SMEs depending on *Vertical Procurement Programs* alone are experiencing increasingly lost opportunities.

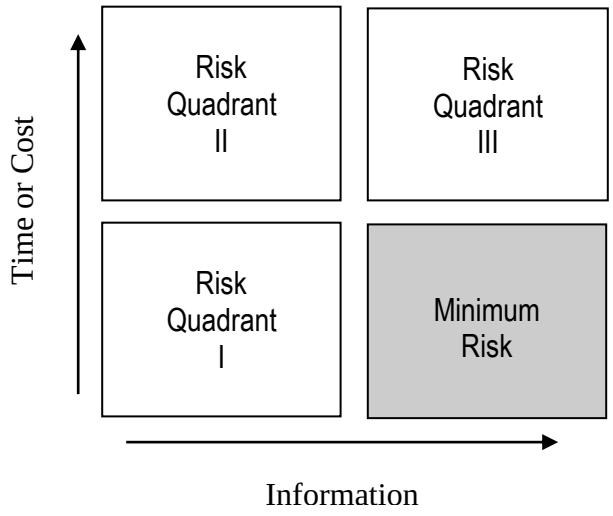
OEMs interested in utilizing M/SMEs are often exposed to those M/SMEs identified through *Vertical Procurement Programs*. Since the primary focus of this program encourages participation, not capability development, the result of this approach (according to some OEMs) is that it casts doubt on the M/SME's product's true cost, quality, and delivery. This usually results in the trivial use of M/SMEs by OEMs who themselves face stringent supply demands. Both M/SMEs and OEMs agree that perception is what affects performance opportunity.

In the face of changing dynamics in Supply Chain Management, OEMs seeking to use more M/SME suppliers in their Supply Chain, face two areas of high risk:

1. The risk of making a decision with insufficient information about the Minority manufacturer, and
2. The risk of losing an opportunity by waiting too long to obtain adequate information about the Minority manufacturer.

[3] *Vertical Procurement Programs,* David J. Burton, a term used to refer to a initiatives that quantitatively increase the level of Minority procurement through programs that use such compliance tactics as: set asides, quotas, and other percentage-based participation goals as the exclusive way of getting companies to reach out to Minority firms.

Figure 1 represents four scenarios of Time and Information risk when evaluating use of M/SME's in the supply base.



Risk Quadrant I (low information, low time) represents the situation where the decision to use the M/SME has been done quickly (low time), but little information is available regarding the company's quality, delivery pricing, or other performance. The OEM or investor makes their decision to use or invest in the M/SME simply because they are a Minority firm. This risk is one of making an investment mistake – the firm might not live up to expectations.

Figure 2. OEM Supply Chain Risk Grid

Risk Quadrant III represents the situation where adequate information is available (high information) regarding the M/SME's performance, but the decision-making process has taken too long. Risks in this quadrant are usually opportunity losses, in which the M/SME has long since been incorporated into a competitor's supply chain, or another investor had bought up all available ownership in the firm. As time passes, these risks may become more detrimental than those in Risk Quadrant I – OEMs and investors in Quadrant I have decided quickly to use M/SMEs and will simply eliminate those that do not meet performance criteria.

Risk Quadrant II represents the greatest risk – too much time has been spent making the decision to use a particular M/SME, and too little performance information has been gathered about them.

The Minimum Risk Quadrant represents the desired Information/Time scenario. Accurate information is readily available to OEMs and investors about particular M/SMEs. It is towards that reality that SCMEP's M/SME OEM Supply Chain Intervention Program is focused.

With new management and technological advances (such as the rise of e-Business) taking place within the Supply Chain, the reality of cost and time becomes the OEM *risk* or *decision curve*. Anxious to be given an opportunity to perform, the M/SME is often faced with an interested OEM that has (1) too little information on product quality, delivery, and cost to make a decision; and (2) has taken too much time with which to get the information. The

dilemma faced by many OEMs, however, is that the socio-economic realities of population shifts and their impacts on product consumption are real. Without the need for regulatory or legislative mandates, the greatest problem is the lack of M/SMEs prepared for the opportunity.

THE OEM SUPPLY CHAIN DRIVERS

Effective involvement of M/SMEs in the OEM supply chain necessitates understanding the forces that are at work in changing the paradigm of how most OEMs see the M/SME issue. SCMEP has asked the question, **"What is driving the OEMs' current interest in involving M/SMEs (and Minority suppliers of maintenance, repair, and operations services) in their supply chains?"** The answer to this question is rooted in understanding OEMs' current and future strategies.

The Changing Dynamics of the OEM Supply Chain

OEMs understand that the supply chain is a consumer-driven phenomenon. As stated in an article in APICS – The Performance Advantage©, "Changes in materials management practices hinge on the need to better manage assets and activities in obtaining resources and converting them into products the customer will buy."[4]

Market factors are changing the way OEMs do business and manage their supply chains. As paraphrased from an article in *Supply Chain Management Review*, "…supply chain management means inter-company processes and relationships – how pairs of companies, or even larger groups of companies, coordinate their individual activities to make things better for everybody. The next big wave of opportunity lies in knocking down the walls between the OEM and their customer and between the OEMs and their suppliers."[5] OEMs focused on relationships with their suppliers must consider the factors detailed in Table 1:

[4] G. Berton Latamore, "Reengineer or Perish," APICS - The Performance Advantage©, January 1999, pp. 44-48.

[5] Francis J. Quinn, "Reengineering the Supply Chain: An Interview With Michael Hammer," Supply Chain Management Review, Fall 1998.

Cost
The average purchased material content for manufacturers is now 60%.
For high technology firms the portion reaches 85% to 90%.
This means that the largest elements of cost for an OEM are in the supply chain.

Quality
Building high quality products and services are substantially dependent on the quality level of inputs from the supply chain.

Market Responsiveness
Reducing cycle times for both existing products and the development of new products is highly dependent upon supply chain performance.

Technology
Except for a firm's core, strategic technologies, access to materials and process technology is gained through the supply chain.

Outsourcing
Firms continue to focus their resources on core business processes and technology where they feel their central value to their customer reside. This means that there is an on-going effort to outsource other activities to the supply chain. This accentuates the supply chain's importance for the four drivers above.

Information Technology
The continuing improvements in the cost and ease of computing and communications coupled, with the rapid emergence of Internet technologies, is creating new opportunities for companies to manage and work with their supply chains.

The Lean Enterprise
The maturing of this new business paradigm is an additional driver because of its focus on waste avoidance, continuous improvement, and cycle time reduction.

New Product Development
This key process is increasingly focusing attention on the role of the supply chain because of the portion of outsourced cost and the increasing design input and control by the supply chain over materials and process technologies.

Table 1. Major Factors in Supply Chain Management[6]

The Effect of Changes in the U.S. Minority Consumer Base

With an understanding of the consumer-driven aspects of their supply chains, OEMs have begun to focus on U.S. census projections for the next fifty years. As projected by the U.S. Census Bureau, the most telling of this data shows that:

- The Minority population will account for nearly 90% of the total growth in the U.S. population from 1995-2050.

- Every Minority group will represent an increasing share of the future U.S population.
- The Minority population will likely surpass the non-Minority population after 2050.
- In 2025, the Minority population will exceed the non-Minority population in five states.
- These five states will represent one-fourth the U.S. population.

Table 2. Significant Statistical Changes in Minority Demographics[7]

This future reality has become a major strategic factor in OEMs' concerns for the composition of their Supply Chains, especially since their suppliers produce 60-90% of raw materials that go into the final product. Product quality, cost, and delivery aside, the wall between the OEM and the consumer is linked to the role manufacturing plays in wealth creation and its linkage to the consumer.

What does this mean and why would a Minority consumer be interested in knowing that Minority firms participated in the manufacturing of the product? The answer to this question can be found in the discussion below.

OEM Perspective on Wealth Creation and Consumerism

Manufacturing is the cornerstone of wealth creation in the United States. Manufacturing has always had a spillover effect into other sectors of the economy, while reducing inflation. The manufacturing sector; makes the highest contribution to economic growth, makes the largest contribution to technological advances, and consistently achieves the highest productivity growth rates.

Small Manufacturing Enterprises (SMEs):

- make up over 98% of all U.S. manufacturing;
- provide 65% of all manufacturing employment;
- employ one in every ten Americans; and
- produce more than 50% of all manufactured goods.

OEMs know that for ten jobs supported by each one million dollars in final sales of manufactured products, six jobs are created in other sectors, and that the productivity generated by manufacturing raises the wages of workers employed in all sectors. Jobs in manufacturing yield higher wages and more generous benefits than those in other sectors. In 1997, the average manufacturing worker

[6] "Supply Chain Basics, First in a Series of Concepts and Practices," New England Suppliers Institute©, 2000, www.nesi-supplychain.com
[7] He, pp. 1-4.

earned $39,300 a year in wages, while the average total compensation (salary plus benefits, bonuses, and Social Security contribution) was $48,000. The average U.S. worker earned $35,500 a year, with total compensation of just over $40,000.[8]

The linkage between the employment generating capacities of jobs in the manufacturing sector and use of productive M/SMEs in the Supply Chain is seen in OEMs' understanding that:

- jobs in the manufacturing sector create a source of expendable income with which to purchase products;
- Minority-owned SMEs are not only more likely to hire persons that look like them, but that the pool of eligible workers will increasingly become Minority;
- the competitive niche of the future will be OEM supply chain versus supply chain, and the level of M/SME involvement represented among their suppliers' ranks that mirrors the market percentage of targeted consumers;
- consumer awareness of these facts through formal advertising campaigns will create a level of customer loyalty that will drive profits; and
- brand loyalty will be driven by a conscious desire to retain employment and overall community development impact.

OEMs may also be influenced by other research on overall corporate diversity initiatives that supports the view that a corporation's reputation has clear implications for its bottom line. Research by the Reputation Institute and Harris Interactive supports the idea that "...a visible commitment to communities and employees will pay dividends when it comes to consumer loyalty and the public's general opinion of a company."[9] Much of this research has been driven by the works of Dr. Charles Fombrun of the Stern School of Business at NYU. In his most recent book, *Reputation: Realizing Value from the Corporate Image*, Fombrun argues, "by developing strong and consistent images, well-regarded companies generate hidden assets – or reputational capital – that give them a distinct advantage." The study found that, contrary to popular belief, consumers place more value on a company's emotional (the degree to which a consumer likes or respects a company) appeal and workplace environment than its financial performance or products and services.[10] The Diversity Institute points out that corporations that score high marks for corporate reputation also earned accolades for their commitment to diversity when ranked on the Fombrun Reputation Quotient.

[8] The Facts About Modern Manufacturing, ©The Manufacturing Institute, 5th Edition, 1999, p. 29.

[9] "Diversity Strengthens Corporate Reputation," Hemisphere, Inc.©, 2000, www.diversityinc.com.
[10] Charles Fombrun, Reputation: Realizing Value from the Corporate Image, Harvard School of Business Press, 1995.

This study concluded that:

- Two-thirds of the ten top-ranked companies were remembered for their advertising, and
- Consumers look to advertising to educate them about what social goals a company is pursuing.

The bottom line here is that diversity strengthens corporate reputation.[11] An OEM's creative use of advertising to convey their commitment to and association with M/SMEs translates into a competitive strategy. As populations shift, this current supply chain link to advertising will become even more intense and visible. An OEM building supplier relationships today is synonymous with positioning itself for future sales.

From a corporate strategic planning perspective, OEMs understand that waiting for population shifts to become a reality before making Supply Chain moves with M/SMEs is strategically flawed. As put by one automotive executive, OEMs know that Minority manufacturers are much more likely to hire persons that look like them, therefore, diversification of the supply chain now is like supporting your future end product client base since the dollars to buy our products will be through employer wages; their logic is summarized in Figure 3 below.

[11] Hemisphere, Inc.©.

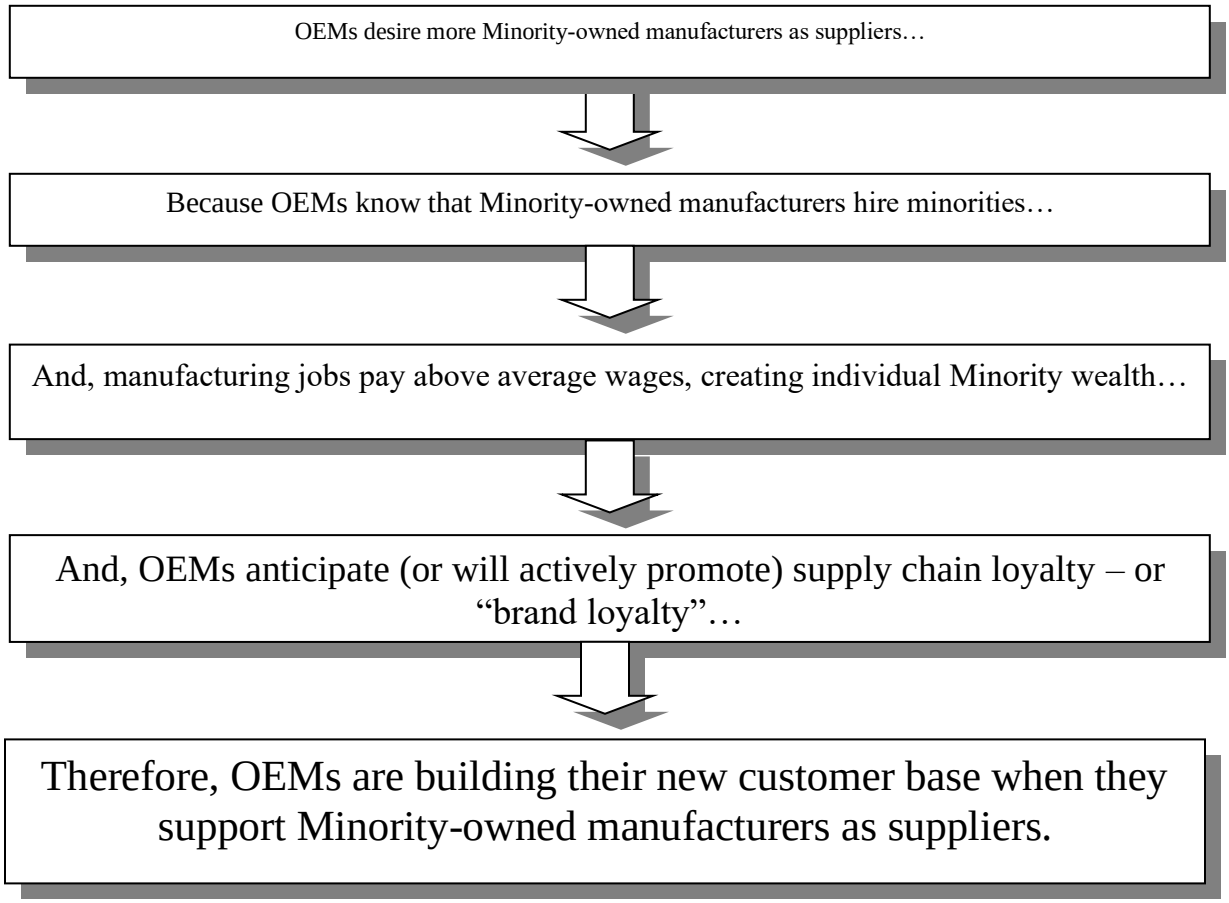


Figure 3. Driver for One OEM's Minority Supplier Program

As best expressed by an unnamed big-three automotive OEM to their major suppliers:

> **"…Minority procurement is no longer an issue of social conscience. Our very future depends on capturing and retaining the loyalty of a growing consumer market audience. Ours is a truly reciprocal relationship. Minority (businesses)…stand prepared to accept the challenges, risk, and merit of doing business in the vibrant global business environment. We need to <u>support them</u> in their efforts so they can <u>sustain us</u> in our growth."**

PLAN OF ACTION

The timing is right to assist both M/SMEs and OEMs. Simply put, the objective of the SCMEP M/SME Supply Chain Intervention program is to remove the OEM and/or investor risks described earlier. The SCMEP approach emphasizes holistic assistance through product quality, delivery, and cost systems improvements in order to enhance the M/SME's readiness for supply chain partnering prior to and/or concurrent with identified opportunities. Towards this goal, the SCMEP instituted a M/SME Improvement Program in January 1999 based on the following program components – each of these component activities is described in detail in this section. This information is broken into the elements of the existing SCMEP M/SME program, and those planned for the future of the program, pending financial funding.

Program Component	Implemented in Current M/SME Program	Planned or Further Implementation Proposed
Outreach and identification of M/SMEs	Yes	Further Implementation
Competitiveness Review (CR™) assessments and M/SME action plans	Yes	Further Implementation
Providing M/SME development assistance	Yes	Further Implementation
Conducting ISO/QS 9000 gap analyses, evaluations, and registrations	No	Planned
Developing sources of funds for M/SME development and expansions	No	Planned
Assisting in use of e-Business applications	No	Planned
Assisting in identifying opportunities for OEM and M/SME mentor/protégé arrangements	No	Planned
Establishing a comprehensive M/SME Database (listing of capabilities)	Yes	Complete for SC, Further Implementation
Modify Comprehensive M/SME Database to include ISO Registration	No	Planned
Acquisition of existing SMEs	No	Planned

Table 3. SCMEP Minority Small Manufacturer Program Components – Current and Planned

Outreach and Identification of M/SMEs

Existing M/SMEs in South Carolina were identified from available public and private listings and through networking with individual M/SMEs. Identification was followed up by field visits to discuss operations and gain an overview of perceived needs and gaps in economic development systems.

Competitiveness Review™ (CR™) Assessments and Providing Development Assistance

The CR™ is a holistic assessment of a company, with an emphasis on identifying the primary constraint(s) to

success. The CR™ assesses the relative competitiveness of an SME in the areas of: Management, Quality, Delivery, Technical Capability, Cost, and Environmental Management. These six categories are further developed into 24 minor categories. This information is summarized, the percentage of achievement in each major category is calculated, and a classification is assigned. The importance of each question and its relevance to a relationship between a company buying products and/or services is based upon three major categories: the effect on current business, the effect on future business, and the culture of the company.

The SCMEP approach to conducting the assessment is rooted in the principles of the Theory of Constraints (TOC)[12] which focuses on helping the M/SME identify the two or three constraining factors affecting product quality, costing, supply, marketing, or delivery.

The SCMEP has worked with small manufacturers for over ten years, and has refined a Client Engagement and Transformation Process, which includes four major phases, found in Table 4.

Phase	Description
RELATE	Discuss Key Issues with Client. In the initial site visit, the main purpose is to listen to the client in order to begin the process of identifying perceived constraining issues.
DISCOVER	Competitiveness Review™ (CR™) Assessment. The on-site CR™ process begins with reviewing the status of responses to the 150-question pre-CR™ Questionnaire. Supplemental data are collected and observations are made during the facility tour, which is pertinent to the process of determining the existence of internal or external constraints and how the production processes are affected. At the end of the assessment and tour, the SCMEP team meets again with management to review findings and discuss the company's perceptions of their most important issues. A date to present the final written report is scheduled during this meeting.
DELIVER	Improvement Plan. A prioritized Action Plan is proposed to remove the identified constraints and/or to implement actions geared to facilitating the proposed improvements. Specific implementation is customized for each firm. The general areas of improvement usually fall within the following categories: quality, manufacturing analysis, process improvement, business systems, marketing, financial, and human resources.
SUPPORT	Empowerment. SCMEP provides assistance that teaches the small manufacturer client how to help himself. Often, a part of SCMEP's delivery is Team Training – create an integrated cross-functional problem solving team made up of the client's personnel. SCMEP also provides multiple projects for approximately 60% of its clientele, developing new capabilities with each project.

Table 4. SCMEP's Client Engagement Strategy

Conduct ISO Gap Analysis

A major objective of the program and the CR™ assessment is to gain insight into a company's readiness for certification and registration to the International standards (ISO 9000 and ISO 14001) or to the automotive

[12] NOTE: Theory of Constraints (TOC) is a logic-based practice used by SCMEP to affect change management in small manufacturers. Popularized by E. Goldratt.

industry quality standard (QS 9000). While these certifications are rapidly becoming a major competitive factor for all SMEs, obtaining these registrations for M/SMEs have the potential of removing OEM perceptions about inferior product quality, delivery, and cost. An important tool in this process is the ISO Gap Analysis. To provide the reader with an understanding of the typical requirements in ISO registration, Table 5 identifies key areas in which a company would be assessed to obtain an ISO 9000 registration.

- Management responsibility
- Quality system
- Contract review
- Design review
- Design control
- Document and data control
- Purchasing
- Control of customer-supplier product
- Product identification and trace-ability
- Control of inspection, measuring, and test equipment
- Process control
- Inspection and testing
- Inspection and test status
- Control of non-conforming product
- Corrective and preventive action
- Handling, storage, preservation, packaging, and delivery
- Control of quality records
- Internal quality audits
- Training
- Servicing
- Statistical technique

Table 5. Key Areas for ISO Registration

Create M/SME Capital and Enterprise Development Funding

As important as product quality, delivery, and cost are in a favorable market, so is the M/SME's access to capital. Capital accessibility and business/financial management skills are primary factors contributing to the success or failure of an emerging manufacturing enterprise. While these well-understood relationships hold true for all small businesses, inequities in how capital is provided by financial institutions and inefficiencies in how business management skills are linked to capital accessibility by traditional business support programs place Minority businesses in general at greater risk of failure.[13]

For the M/SME, the lack of the unique management and/or financial skills required in manufacturing is often exacerbated by the lack of available start-up and growth capital. A recent Milliken Institute study found that:

- the most important determinants of entrepreneurial success are the level of human and capital inputs;
- many potential Minority businesses never get off the ground because they are unable to acquire the needed capital (especially in capital intensive areas like manufacturing);
- the amount of capital invested at startup is a powerful determinant of firm size and the appropriateness of certain types of businesses; and

[13] David J. Burton, "An Innovative Approach to African-American Business Development," Business and Economic Review, July-Aug-Sept 1995, p. 24.

- small firms often generate insufficient funds for long-term viability and adequate return on investment to the owner.[14]

In a 1999 SCMEP focus group meeting, M/SMEs cited the lack of access to capital to be a major impediment to performance improvement. In manufacturing, the productivity issues that affect profitability are the same ones that affect cash flow, and without adequate capital to finance growth and expansion, much of the processing improvements cannot be undertaken. The lack of access to early stage expansion capital is what leads some M/SMEs to attempt to finance growth from *accounts payables*. M/SMEs continuing this practice will ultimately face a steep climb out of an inevitable cash flow deficit. This phenomenon, coined the "killer curb," is a steep climb out of which some never make it.[15] To sustain growth, Minority businesses need greater access to sources of capital at all critical stages of business development.

While this is especially the case with manufacturing concerns, the difficulty faced by M/SMEs in accessing capital is one shared by all Minority businesses. Where the Minority population growth makes the Minority community a most potent market in the American economy, their position in financial markets is a catch-up phenomenon for a historically under-served group. According to the Milliken Institute research, Minority businesses are generally under-served by capital markets for four primary reasons:

1. A lack of credit information and resulting misperceptions of Minority businesses as small, unprofitable, and unfavorably located.
2. Minority firms' heavy dependence on commercial bank lending due to low levels of net worth and net financial assets among Minority entrepreneurs, and a lack of access to alternative forms of financing.
3. Government policies that have focused on bank lending, while increased regulation, capital restrictions, and consolidation have made commercial bank lending to small businesses less attractive.
4. Small Business Administration (SBA) financing rules that have constrained equity financing in small Minority businesses and have focused policies on the least profitable industry sectors and firm sizes.

The research also documents that these findings are intensified by other factors such as:

- Black-owned businesses start with less equity capital. (Blacks' lower levels of equity capital are rooted in lower levels of household net worth.)
- Black businesses are less likely to utilize borrowed funds at startup.

[14] Michael Harrington and Glenn Yago, Mainstreaming Minority Business – Financing Domestic Emerging Markets, Milliken Institute, February 1999.
[15] Harry Pelzer, Consultant, American Paper Products, Inc., public presentations, various, 1999.

- Black firms are less likely to receive bank financing, and those that do so receive smaller bank loans, on average, than their non-Minority counterparts. (Black borrowers receive on average an extra $0.92 per equity dollar, other factors constant, while whites receive $1.17 per equity dollar.)
- Prospective lenders (primarily commercial banks) are four times more likely to deny credit to firms owned by blacks than to firms owned by non-minorities.

The credibility of the Milliken Institute findings, combined with SCMEP's experiences with the Community Reinvestment Act (CRA) and the Southeast region's largest banks, revealed the following information about Minority businesses:

1. Experience higher collateralization ratio requirements.
2. Receive 20% to 40% less capital than requested.
3. Experience longer time periods for loan negotiations.
4. Have higher variances between amount originally requested and the amounts received.[16]

These findings surface when the Minority businesses are compared to their non-Minority counterparts. The National Minority Supplier Development Council (NMSDC) recently moved to define a firm as *Minority* if ownership is 30% and the Minority voting stock is 51%. The NMSDC took this action because they understand the need of the Minority firm to attract capital. It is the NMSDC's position that many of the companies that currently qualify as minorities are too small to attract large investments and instead have to rely on debt financing and that, under the new rules, firms would be more attractive to venture capitalists. While being protested by the National Association for the Advancement of Colored People (NAACP), the National Urban League, the Hispanic Chamber of Commerce, and others; Fortune 500 OEMs who control the NMSDC are intent on moving forward with the change. Regardless of one's views on this issue, the NMSDC's emphasis on equity investment confirms:

- the urgent need to address the capital issues of the smaller M/SMEs, lest we begin to create opportunities for the few larger ones;
- the need for private investment capital in M/SMEs; and
- that investment in M/SMEs can be a source of wealth creation.

A Flawed Approach to Lending[17]

Traditional Minority economic development models are fragmented and disjointed because separate and sometimes unrelated programs have been established for lending and business management education. Lending success, however, hinges on the assumptions that:

[16] Burton, p. 24.
[17] Ibid, pp. 24-25.

- business planning know-how has been properly addressed; and that
- the tools of business survival are at the fingertips of the business person; or that
- the businessperson will take advantage of technical assistance when needed.

While asset-based lenders are concerned about the business' survival in the marketplace, they must, as required by federal regulation, focus on loan underwriting requirements geared more exclusively to repayment. Questions facing lenders and investors include:

- ☑ Are there sufficient assets to cover any losses?
- ☑ Is there sufficient credit history to warrant the risk of lending?
- ☑ Does the borrower have a track record that clearly shows their capacity to make the business successful?

This traditional view of lending forms the basis of capital empowerment in our society. Its flaw relative to the capital needs of Minority businesses (or any other businesses for that matter) is that it is based on repayment through the banking institution's minimization of capital risk, not on the growth of the borrower as a manager of capital. In manufacturing, where bankers traditionally have little experience in understanding the unique capital needs of any manufacturer, interpretation of risk is not well understood, except in terms of asset security. The real risk, however, might be hidden in the manufacturing process.

A Different Approach[18]

There is a need for an initiative that links capital accessibility to required levels of technical assistance and management training. The SCMEP proposes that a non-profit entity be developed to coordinate the joint administration of a M/SME development program that provides: (1) access to capital, (2) technical assistance, and (3) management training.

The technical and management training components would be geared toward reducing the risk of loss and improving the business management skills of borrowers and potential borrowers. While flexible credit and asset underwriting material would be components of such an organization, the manner in which technical assistance and business training are provided is the element of distinction. This unique approach takes place on four levels (as more fully described in Table 6).

[18] Ibid, pp. 25-26.

An organization is needed that would work hand-in-hand with the SCMEP and system of MEP Centers nationally to underwrite the cost of providing technical assistance and funding improvements for M/SMEs. One division of such fund would be a Technical Assistance Fund to assist in underwriting a portion of the cost of manufacturing process improvements. Another division, the Capital and Enterprise Development Fund, would be used for major equipment purchases and working capital. One source of such funds might be through banks with Community Reinvestment Act (CRA) programs. Bank-related CRA and other public and private resources are being explored for development of an initial $500,000 Technical Assistance Fund (TAF) and a $5 million Capital and Enterprise Development Fund. It is proposed that both the TAF and Capital funds will be used to make low-interest to zero-interest rate, long-term loans to M/SMEs.

Four levels of assistance would be provided as part of fund administration.

LEVEL ONE	This level of assistance would be linked to the Competitiveness Review™ and Action Plan development process discussed previously. Its emphasis would be to identify operating strengths and weaknesses that could have an affect on profitability. The intricacies of manufacturing product costing and profitability are unique. In manufacturing, for example, a product's cost may have no relationship to the company's bottom line. A product's cost can be increased and profits also increase. A product's cost could be decreased and profits also decreased. In manufacturing throughput accounting, what really matters is the impact of a product-related decision on the company's bottom line. This goal is accomplished by managing the manufacturing system's capacity. What limits the capacity of a system is its constraints; so, to better manage the system's capacity we need to identify and control its constraints.[19] In essence, this task is the objective of the Competitiveness Review™. Failure to understand these principles can and will adversely affects cash flow, thus affecting a firm's ability for loan repayment.
LEVEL TWO	If the Action Plan evolving from Competitiveness Review™ warrants the need for Technical Assistance or Capital, the need is first assessed from a technical aspect by a MEP Manufacturing Specialist (MS). In conjunction with management, the MS would also review credit histories, assets, cash flows, and financial statements. A Z-score, for example, might be developed as an indicator of financial solvency. Assessment would also be made of the M/SME's understanding of fund use as it affects: • business objectives, • competitive positioning, • sales forecasts, • product quality, • market and market strategies, • manufacturing processes, and • other pertinent information.

Table 6. Levels of Assistance

[19] Thomas Corbett, Throughput Accounting – TOC's Management Accounting System, North River Press, 1999.

LEVEL THREE	The third level of technical assistance is in the MS's and management's review and analysis of monthly business income statements, balance sheets, payroll reports, aged payables, aged receivables, and others as may be required. This level of technical assistance cannot be done without the borrower's cooperation to provide requested documents. Thus, one element in the borrower's loan note would be a covenant requirement that this material be routinely provided.
LEVEL FOUR	The fourth level of technical assistance can benefit both borrowers and others interested in general business matters. It involves referral to SME and M/SME Manufacturing Management School discussed below.

Continuation of Table 6. Levels of Assistance

Establish M/SME Manufacturing Management School

As established above, management and the management of capital is the fundamental skill set required in manufacturing. The Chief Executive Officer of today's manufacturing company is faced with an increasing complexity of changing operating factors that affect product quality, delivery, and cost. Knowledge about production and processing systems that determine product quality, understanding the interrelating dynamics of product delivery, and the variables that determine product costing are essential to establishing and maintaining competitive positioning and creating value for the company.

A defined curriculum would be developed which supports the general criteria of the Malcolm Baldrige National Quality Award, with an additional module on Capital Management. The Baldrige criteria include:

- ☑ **Leadership** – policy development and implementation
- ☑ **Strategic Planning** – setting strategic directions, commitment of resources
- ☑ **Customer and Market Focus** – determining requirements, expectations, and preferences of customers; determining customer satisfaction
- ☑ **Information and Analysis** – selection, management, and use of information and data to support key processes and action plans; performance improvements
- ☑ **Human Resource Development** – training and development
- ☑ **Process Management** – product and services design, market introduction, production, delivery, and improvement
- ☑ **Business Measurements** – customer satisfaction, financial and marketplace performance, supplier and partner performance, and operational performance

Whether a Minority or non-Minority manufacturing business owner, the complexities of manufacturing production and the fiscal skills required for strategic development are the same. To reduce the chance of failure of M/SMEs, SCMEP proposes that a Manufacturing School be established for training manufacturing business owners in skill areas related to:

- Manufacturing processing systems
- Product quality systems
- Applied technology
- Financial management strategies
- Integrated electronic data information systems

Incorporation of e-Business Applications

"It is not the strongest of the species that survives,
not the most intelligent,
but the most responsive to change."
— Charles Darwin

Supply Chain Management (SCM) – delivering the right product to the right place, at the right time, and at the right price – is one of the most powerful engines of business transformation. While the most common perception of e-Business is buying and selling through the Internet, e-Business is exploiting the combined power of the Internet and information technology to fundamentally transform key business strategies and processes.[20] E-Business will revolutionize the supply chain by providing its customers with dynamic and instant access to the most current data and applications. It will allow management to plan, schedule, analyze, and make appropriate decisions by linking together manufacturers, suppliers, distributors, and customers without regards to functional, geographic, or enterprise boundaries. Its impact will be no less than that of the telephone to communications.

When one considers that a supply chain is a series of customer and supplier relationships that form an interwoven set of binding and integrated links for the purpose of delivering a high level of customer satisfaction, one poor performer in the link weakens the whole chain.[21] An M/SME's ability to clearly understand and apply SCM concepts guarantees it will not be the weak link. E-Business, however, will change the way OEMs view SCM and accelerate its movement. The failure of M/SMEs to adopt e-Business systems will ensure exclusion.

[20] Jim Knechtges and Charles A. Watts, "The Small Business Link," APICS - The Performance Advantage©, January 1999, pp. 54-55.
[21] Ibid, p. 55.

Staying competitive will require e-Business systems to collect and transmit data electronically just to stay abreast of supply chain movement. These systems will help reduce redundancy and speed the processing of information in making managerial decisions on inventory levels, capacities, machine time, labor, and even fund collection and payments. Immediate priority must be given by M/SMEs to find the best ways to capture data without redundancies that adversely affect process improvement up and down the supply chain.

The accelerating rate of e-Business applications underscores the additional pressures on M/SME performance such as: the magnitude of materials required for production; cost competition; competitive pressures on cycle time and lead times; short product life cycle and rapid product development requirements; and new technology requirements. These same pressure areas that affect M/SME performance are the very areas where e-Business applications can effectively improve the manufacturing process. For the M/SME, e-Business becomes an integral component to any strategy to maintain long-term competitiveness. E-Business applications have the immense potential of helping M/SMEs become more competitive. An effective supply chain intervention strategy for M/SMEs will require that cost constraints to implementing e-Business systems be overcome and that the SCMEP serve as broker for the installation and training for applied systems to include:

- Access to detailed product specifications
- Process planning
- Electronic bidding and solicitations
- Process validation
- Electronic ordering
- Customer access improvements
- Real-time order status
- Electronic processing of payments

OEM and M/SME Mentor/Protégé Arrangements

In addition to assisting existing M/SMEs and the formation of new M/SMEs, mentor/protégé arrangements between OEMs and M/SMEs offer an alternative approach to M/SME development. These programs work when there is a reciprocal understanding of the benefit to both the mentor (the OEM or large supplier) and the protégé (the M/SME). Mentor/protégé arrangements should not, however, be confused with supply chain partnering. Where supply chain partnering has no defined ending and assumes that a M/SME is prepared to bring immediate value to the supply chain, a mentor/protégé relationship typically has a defined beginning and end and assumes that the mentor will impart predetermined manufacturing technology to the protégé. The benefit to the mentor is usually qualification for expanded contracts. The benefit to the protégé is usually know-how and/or performance improvements. OEMs interested in such relationships will be identified as a part of the SCMEP's M/SME Intervention Program.

Acquisition of Existing SMEs

The acquisition of available SMEs by existing M/SMEs or other interested Minority businesspersons may present the most significant opportunity for the formation of both new M/SMEs and expansion of existing M/SMEs. Corporate restructuring, including mergers and acquisitions, divestitures, spin-offs, joint ventures, recapitalizations, and leveraged buyouts are among the most powerful tools in building a new generation of M/SMEs with the competitive clout to compete in national and global markets. Factors such as company size and capacity will play a big part in deal analysis and structuring. While transaction structure and financial requirements will vary, a coordinated effort to identify capital sources is critical.

Minority and non-Minority investors, philanthropists, venture capitalists, and others will be approached to support the targeted acquisition of existing SMEs whose existing products may present an opportunity for strategic sourcing or whose capacity might facilitate the start-up of new M/SMEs. The source of funding assistance may also include major OEMs interested in investing in the diversification of their supply chains. SCMEP will:

- Identify capital resources
- Identify acquisition opportunities
- Facilitate capital resources
- Facilitate human resources
- Assess viability of acquisition opportunities
- Assist with transition

Establish M/SME an ISO Qualification Database

While having basic information on the identification of a Minority firm is only the first step in procurement, it is one that is currently disjointed and fragmented. SCMEP recently hired Questline (a national information research firm) to investigate the available data on Minority firms in the U. S. The search revealed that there are general listings of M/SMEs and listings of Minority-owned manufacturing support firms (often called Maintenance, Repair, and Operations (MRO) firms) through such resources as: *Try Us*, National Minority Owned Business Information Center, McGraw Hill Subscriptions, National Minority Suppliers Development Council, and the Minority Business Development Agency's Phoenix Database. However, none of these resources provide readily accessible information on ISO 9000, QS 9000, or ISO 14001 qualified M/SMEs for the specific use of OEMs, SMEs, and M/SMEs.

With advances in e-Business and other advances in SCM practices, the process that OEMs use to make supply chain decisions is changing. An optimally operating supply chain is characterized by:

1. a speedy and accurate process for capturing consumer need,
2. a process for adding value to consumer need,
3. a value-oriented supply chain decision-making process, and
4. a timely process for delivery and collection. [22]

With each of these functions likely run by different department heads, the effective execution of all four is increasingly becoming the internal strategic OEM dilemma. For the Minority M/SME seeking supply chain inclusion opportunities, the rapid rate of information flow about the firm and decision making in the supply chain can – and usually does – work against them. An OEM's Small/Minority Business Development staff person may not always be asked for input or help in identifying Minority firms. With ISO 9000 and QS 9000 being the internationally and nationally accepted standards for product quality in manufacturing, and ISO 14001 being the internationally accepted standard for environmental management, expeditious access to information on Minority ISO 9000, QS 9000, and/or ISO 14001 qualified firms is essential at all levels of corporate procurement.

With no centralized sources of information about Minority manufacturing (M/SMEs) or support firms (MROs), it is the objective of the SCMEP to develop, in cooperation with the U.S. Commerce Department's Minority Business Development Agency, the Minority Suppliers Development Council, and other interested database managers, a comprehensive regional and national database of:

- Minority Small Manufacturing Enterprises (M/SMEs),
- Minority Maintenance, Repair, and Operations (MRO) firms, and
- Minority ISO 9000, QS 9000, and/or ISO 14001 qualified firms.

M/SMEs would be added to the database through their regional MEP Center. The database would be accessible by OEMs and other firms seeking qualified M/SME suppliers.

OUTREACH AND AWARENESS

Communications of the approach and expected outcomes are important components of the program's implementation. Given the program's emphasis on M/SME product quality, product delivery, and product cost

systems improvements, a key element of its success is conveying its objectives to OEMs, major suppliers, and M/SMEs. In addition to discussing the approach, it is important to communicate to M/SMEs that: preparation is the first step towards long-term procurement; and participation in the program does not guarantee business with OEMs and their larger suppliers.

This message is one that changes the conventional mindset of the many programs that have been run in the past. M/SME buy-in to the process must evolve through the process of implementation and communicating results.

Likewise, it is important to convey to OEMs a clear message of:

- how the SCMEP perceives their supply chain risk relative to information and time,
- how we perceive the risk factors affecting their use of M/SME firms,
- how the SCMEP approaches supporting M/SME capacity development,
- how access to the database of SCMEP client M/SME firms could support their supplier needs, and
- other participation options.

SCMEP believes that in the long term this approach will result in both increased levels of procurement and longer-term procurement contracts between M/SMEs and OEMs.

The SCMEP outreach and awareness program incorporates the following:

- Visits to M/SMEs facilities
- Visits to OEMs and other large suppliers
- Publication of a monthly newsletter to M/SMEs and OEMs
- Presentations to key economic development organizations and other groups
- Development of a Website
- Use of a variety of mass media (Press releases, articles in business publications, etc.)

CONCLUSIONS

In the new millennium, OEMs will be only as powerful as the collective strength of their supply chains. That strength will be measured by the degree to which the OEM is committed to reducing costs, improving profitability, enhancing product value, and improving customer service. As the Minority population grows, a major factor affecting supply chain competitiveness in the marketplace will be how representative it is of the ultimate end user – the customer. Outreach by OEMs and major manufacturers to include more M/SMEs in their supply

[22] Henry Noble, "Key Enablers for Supply Chain Management," APICS - The Performance Advantage©, Oct. 1999, pp. 60-62.

chains is no longer a matter of compliance or social benevolence, but has become a value-added business strategy necessary for long-term survival.

This may seem like a windfall opportunity for M/SMEs and prospective M/SMEs, but a major gap exists in economic development programs geared towards Minority manufacturers or Minority/Small Manufacturing Enterprises (M/SME). Natural increases in the number of M/SMEs derived through traditional programs and individual corporate initiatives are not likely to produce either the quantity or quality of M/SMEs needed to fulfill OEM supply chain requirements without the type and form of proactive intervention proposed by the SCMEP. While recognition of the need for more M/SMEs is a major strategic step, a comprehensive strategy to address all of the requirements to make more M/SMEs more competitive and value-added contributors to OEM production requirements is the next strategic step. Unless a comprehensive solution is developed, we risk program fragmentation, disjointedness, and contrived solutions.

A coordinated national strategy to (1) stabilize existing M/SMEs, (2) create new M/SMEs, and (3) retain existing and new M/SMEs is needed. While we recognize that national Minority business advocate organizations, OEMs and major suppliers, and others have in some form discussed much of what has been presented in this paper, the SCMEP's view is that solutions must be uniformly adaptable across the country in order to have the greatest long-term impact on M/SME development. Short-term solutions to satisfy long-term needs prolong the need to address real solutions. In manufacturing, the need for M/SME development must entail strategic solutions at two levels. One solution must be to improve product quality, product delivery, and product cost. The other must be to assist existing and new M/SMEs evolve into companies with the capacity and economies of scale to handle the volume of work requisite for retention as valued partners in the ever-streamlining OEM supply chain.

The SCMEP thus proposes that a national M/SME stabilization, expansion, and retention program be developed that encompasses the following components:

1. Identification and classification of existing M/SMEs.
2. Conducting Competitiveness Reviews™ assessments and providing development assistance.
3. Conducting ISO/QS 9000 gap analyses to determine quality systems improvement requirements.
4. Creation of a Technical Assistance Fund for program support.
5. Creation of a M/SME Capital and Enterprise Development Fund for supporting operational and capital.
6. Establishment of a manufacturing school for management development.
7. Establishment and implementation support of e-Business initiatives for M/SMEs.

8. Development and support mentor/protégé initiatives between OEMs and M/SMEs.
9. Establish a M/SME ISO qualification database for information retrieval and dissemination to OEMs and large manufacturers.
10. Facilitation and acquisition of SMEs by existing and prospective M/SMEs.

Table 7. Essential Components of SCMEP Plan of Action

While not all-inclusive, these program components collectively represent one view of the strategic elements that can result in change when effectively coordinated. At the national level, we must approach resolution of this issue with the tenacity of will and resources required to effect workable solutions to intervene M/SMEs in the OEM supply chain today so that effective inclusion of M/SMEs in the supply chain integration can become a reality tomorrow.

The SCMEP program has limited resources, but is well positioned and staffed with the skill-set to provide the technology assistance and business support. Further, SCMEP has the ability to provide the leadership, administration, and vision for the program.

Obviously, a program of this magnitude and value requires significant investment of time, finances, and effort. In order to implement this program, we must seek funding to support the development of the program's expanded outreach efforts and technical assistance, formation and maintenance of the national database, creation of the manufacturing school for management development, and establishment of the Technical Assistance Fund. This will require that SCMEP obtain a Fund Manager, and hire or contract other resources such as a Fundraiser, and Computer Programmers.

If you received a copy of this document, we are requesting your assistance in making this plan a reality. We invite your comments on *The Strategic Intervention of Minority Small Manufacturing Enterprises in the Manufacturing Supply Chain*, and encourage you to contact any of the following program personnel:

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Continued

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