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Growth Through Globalization

A Case Study of Dana Corporation

By

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Dana Corp. - Globalization for Growth

<u>Faculty Comments</u>

EXCELLENT ANALYSIS OF STRATEGIC CHALLENGES FACING DANA AS IT TRIES TO GROW THROUGH GLOBAL EXPANSION, AND HOW THE COMPANY IS TACKLING THESE CHALLENGES. AN IMPORTANT PART OF THE REPORT IS BASED ON INTERVIEWS WITH SENIOR MANAGERS

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Title

Dana Corp. - Growth Through Globalization

Introduction

Dana Corporation is a manufacturer of products and systems for the worldwide vehicular, industrial and off-highway original equipment markets and related aftermarkets. With sales of $8.3 billion in 1997, Dana continues to grow in several vehicle supply markets. The firm is most closely tied to auto manufacturers with Chrysler and Ford making up 30% of sales. Highway related vehicle sales (OEM and aftermarket) accounted for 80% of 1996 revenues. The greatest selling product line is axles, accounting for 30% of revenues to all markets, followed by engine parts (14%), driveshafts (11%) and frames (8%).

Over the past several years, Dana has grown substantially around the globe. Sales more than doubled during the eleven-year period from 1986 to 1996, from $3.7 billion to $7.8 billion. In this same time period, net income grew at an even faster rate, nearly tripling from $84 million to $306 million. The stock market has approved of this growth and profit generation as the stock price doubled during the same eleven-year period (see Appendix 1 for financial data).

Dana has two major goals. The first goal is to have 50% of sales come from outside the US by the year 2000. The second goal is to have sales divided evenly between the highway vehicles segment and the distribution, off-highway, service and industrial segments. Both goals will move Dana towards being a more diversified vehicle parts supplier. According to the 1996 Annual Report, two-thirds of this growth will come from expanding markets, increased market penetration and new product development. The remaining one-third will come from acquisitions.

While Dana continues to utilize several modes for growth (acquisition, new products etc.) this paper will investigate and discuss Dana's approach to globalization. Currently, Dana's sales from outside the U.S. are 42% of all sales. The goal is to have 50% by the year 2000. Dana has operations and joint ventures on 5 continents and 30 countries including facilities in South America, Asia and Europe. In 1997, international sales topped $2.3 billion with another $700 million of exports from the U.S. Why has Dana been so successful at globalization? How does it approach new markets and new customers around the world? What are the challenges of and future strategies for globalization beyond the year 2000?

History of Dana[1]

In 1899, Clarence Spicer entered Cornell to study engineering. Fascinated by automobiles, he invented a "universal" joint for propeller shafts. Spicer patented the joint in 1903 and gained the attention of several automobile manufacturers in the US. Seeking to start his business in a region where people shared his religious beliefs (Spicer was a Seventh Day Baptist), Spicer moved to Plainfield, New Jersey where he rented some

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[1] The information in this section was adapted from History of Dana on www.dana.com.

space at his relative's Potter's Printing Press Company. The firm was incorporated as Spicer Universal Joint Manufacturing Company.

In 1904, the new automotive industry began to fall on hard times. By 1914, well over 1000 automotive related companies had failed, and Clarence Spicer's firm was moving in that direction as rapid expansion had increased costs. Looking for help, Spicer enlisted the help of an investment bank, which assigned Charles Dana to help the company. Seeing an opportunity, the young lawyer invested $25,000 for a controlling interest in the firm. With the boom of WWI, and some help from Charles Merrill of Merrill Lynch, Charles Dana and Clarence Spicer's firm was re-organized into the Spicer Manufacturing Company.

The firm grew rapidly through sales and acquisitions. By the mid 1920's, the auto industry was shifting to Detroit. As annual revenue reached $10 million, land was purchased in Toledo in 1928 so Spicer Manufacturing could be closer to Detroit, but also a day's train ride from New Jersey so Charles Dana could frequently visit. During the 1920's - 1940's, growth continued for Spicer Manufacturing, mostly through acquisition. The Salisbury Wheel Company was purchased in 1919 (it was renamed Spicer Axle in 1970). In 1947, Auburn Clutch was purchased and renamed Spicer Clutch. There were many other acquisitions as well. During this timeframe, Charles Dana also led internal changes including employee education and benefits. Idea sharing and implementation was also paramount. By 1946, revenues hit $108 million, and the name of Spicer Manufacturing was changed to Dana Corporation, in honor of Charles Dana.

Recession hit America again in 1957 and Dana's sales dropped by over 25%. This forced Dana to diversify from just automobiles and into the truck market. During the same year, Dana began its first overseas ventures by acquiring an interest in Albarus of Brazil. With the 1960's acquisitions of Perfect Circle and Victor Gaskets, Dana now had distributors of replacement parts with far-flung overseas operations. By 1972, Dana had a drive-shaft plant in Korea and later in the 1970's, Dana had an interest in two British firms. The process of globalization had begun.

By 1967, Dana had annual revenues of $500 million. Ren McPherson became CEO in 1972 and continued to drive expansion. By 1979, Dana had grown to sales of $2.8 billion and employed 30,000 people worldwide. The next recession had a major impact on Dana as sales for its core products dropped by 50%. However, Dana was able to retrench, re-invest and stay profitable. More diversification occurred and the organization structure was flattened substantially from 12 layers to 6. By 1989, sales reached $4.85 billion. In the early 1990's, sales of Sport Utility Vehicles skyrocketed, and Dana was able to take advantage of this trend by selling its core products of frames, driveshafts and axles. Including its acquisitions (and some divestitures), 1993 sales rose by $600 million and 1994 sales rose by $1.1 billion. By 1995, Dana had become the largest independent automotive supplier in the US, and fourth on a global scale.

<u>Organizational Structure</u>

In 1996, Dana was a matrix organization. There were eight "Product Parents" responsible for the main businesses including axles, driveshafts, structural components, engine products and leasing services. These were organized with four regional areas: North America, South America, Asia and Europe. The regions had line responsibility. With the major shifts in the automobile market, this structure was no longer the best for Dana.

South wood "Woody" Morcott unveiled Dana's new organization structure in 1997. Strategic Business Units (SBUs) were implemented with six new groups replacing the Product Parent structure. For instance, light axles, driveshafts and structural components were all separate businesses. Following the reorganization, they are all a part of the Automotive Components Group (see Appendix 2 for a more detailed description of the new organization structure and Appendix 3 for brands). This new structure is what President Joe Magliochetti calls now "one-stop shopping" for the customer. The SBU's are still supported by Dana corporate as well as the regional structure (North America, South America, Asia and Europe). This new organizational structure is intended to focus the company on its customers while still supporting different parts of the world.

Strategy

Dana's mission and strategy are encapsulated in the *Beyond 2000* statement. Its motivation has come from past recessions. Woody Morcott explains:

> "When we came out of the 1991 recession we were determined to continue without subjecting ourselves to that trauma again. We responded by being more international, more diverse with markets and customers, and in general less dependent on OEM business - automotive in particular."[2]

This is a five-pronged strategy statement (a more detailed description is in Appendix 4) including the following:

1. Implementation of the Dana style throughout the organization.
2. Dana will be the global systems and components supplier to its customers.
3. Dana will receive 50% of sales from groups other than the highway vehicle segments.
4. Total sales will be split evenly between the US and the rest of the world.
5. Dana will provide superior returns to its shareholders.

Points three and four represent two of Dana's key objectives. Both are intended to further diversify Dana and protect against future economic downturns. According to the 1997 Dana Annual Report, both goals are nearly achieved. International sales and exports reached 42% of all revenues and sales to the distribution, off-highway and industrial markets also reached 42% of revenues.

[2] Teresko, John, "A Supplier on a Roll," Industry Week. March 2, 1998.

Automotive Supply Market

The automotive supply market has been undergoing massive changes in the past ten years and will continue to do so for the foreseeable future. One of the key changes is, and will continue to be, the consolidation of the supplier base. From 1990 to 1996, the number of Tier One suppliers was reduced by 50% from 3000 to 1500.[3] This trend is expected to continue for the next five to ten years with approximately 375 Tier One suppliers remaining by the end of the decade. As an example, B org-Warner has plans to double in size in five to seven years through internal growth and acquisitions. Such strategies are not uncommon in the auto supply base. In 1997, 109 mergers or acquisitions occurred valued at $11.1 billion, up from 93 transactions valued at $4.5 billion in 1995.[4]

Bigger is better if the supplier wants to survive. The survivors will fall into three categories: 1) large, diversified system integrator suppliers, 2) smaller, niche firms that will directly supply the OEM's, and 3) second-tier suppliers that will supply the first two.[5]

A second trend is the continued evolution from parts suppliers to module or system integration suppliers. In the never-ending quest of the OEM's to cut cost, automakers like Chrysler look to their supply base to get involved sooner and share responsibility in the development process. The supply base has responded by increasing R&D capabilities and expanding their capabilities to provide system solutions. Lear has been cited as the first true system integrator with its seat and interior business. A system integrator may handle all the activities associated with one portion of the vehicle. This could include areas such as design, manufacturing and assembly. If the system integrator does not make the part, they will handle the procurement, unless otherwise specified. This greatly reduces the number suppliers the OEM must deal with. Taking systems integration to its fullest extent, Volkswagen has opened a plant in Brazil with a "modular consortium" concept that has suppliers in the final assembly plant responsible for every function except final testing.[6]

A final important trend stems from the global expansion of the OEM's. Since the OEM's are offloading responsibility to the supply base, there is a need to have a supplier that can supply parts, modules and/or systems around the world. JIT needs are forcing suppliers to have operations near an OEM facility. This can put a great strain on the supply base as suppliers are not gaining any economies of scale through major domestic

[3] "Supplier Trends"; International Trade Services - AutoParts Report; December 3, 1997.
[4] Simison, Robert L., "New Dana Illustrates Reshaping of Auto Parts Business", The Wall Street Journal. September 2, 1997.
[5] "Supplier Trends"; International Trade Services - AutoParts Report, December 3, 1997.
[6] Lima, Edvaldo Pereira, "Detroit South?." Industry Week. November, 3, 1997.

plants. Furthermore, the capital investment to set-up foreign operations, even joint ventures, is quite high.

Growth Model

If cost cutting, downsizing and re-engineering were the buzzwords of the 1980's, then growth is the buzzword for the 1990's. According to University of Michigan Professor Aneel Karnani, "the primary objective of a company should be to maximize shareholder value. The only way to create value is to achieve a higher return than the cost of capital." Apparently, the auto industry is starting to agree. Many automakers and suppliers are starting to use EVA, or economic value-added, and its counterpart, RONA - return on net assets, to measure success.[8] Instead of looking at net sales or profits, EVA measures the amount of value creation, separating good growth from bad growth, otherwise know as value destruction.

There are several ways to grow successfully. According to Professor Karnani, the expansion can come from industry consolidation, innovation, globalization, vertical integration, related diversification and unrelated diversification. Consolidation is one trend that has been very effective in recent years across many industries. Examples of industry consolidators include Columbia/HCA in healthcare and Blockbuster in video rentals. Consolidation is one of the key trends affecting the auto supply industry as well. In fact, Dana Corp is a key industry consolidator as it has made several major acquisitions over the past five years.

Globalization

Globalization is another key growth driver for many industries. This trend towards global growth has stemmed from several changes in the competitive landscape. The end of communism has opened up many lucrative markets in Europe and Asia. The emergence of trading blocks as increased access to markets. Modern telecommunications has provided faster knowledge transfer and exportation of western culture to new markets. New, emerging markets have presented organizations with endless possibilities. Finally, excess capacity and slow growth in mature markets has pushed companies to look outside their home markets.

Globalization does not mean, however, that western firms can grow at will around the world. It does mean adapting to local needs and dealing with new competitors. These competitors may be a small, nimble local competitor or a growing multinational with the financial strength to compete for these new markets. Either way, the competition will only grow more intense.

[7] The 21st Century Supply Chain: The Changing Roles, Responsibilities and Relationships in the Automotive Industry, Office for the Study of Automotive Transportation - The University of Michigan Research Institute and AT Kearney.

[8] McElroy, John, "EVA changes how Detroit measures its executives", Automotive Industries, February 1998.

There is also a host of new issues that the globally-growing firm must deal with. The list includes political instability, government intervention, unequal income distribution, poor infrastructure, inflation, shortages of skilled labor, intellectual property rights violations, overcapacity and inefficient financial systems. The recent demise of the Indonesian economy is an example of what can go wrong in a market. Rapid currency devaluation and political instability have dramatically damaged the Indonesian economy and any operating there.

Dana Global Outlook[9]

Global growth is a key part of Dana's overall strategy. The goal is to be the #1 or #2 automotive supplier. This goal is also translated to every division - #1 or #2 in market share for every division in their respective regions. Growing globally with their customer base is the preferred method. The customer is also the impetus for growth. Dana management believes that if you do not grow or plan to grow aggressively, then OEM's will perceive Dana as small and could potentially lose business. Management needs to continually remind its divisions that Dana is not the biggest supplier in the world. Vice President Gus Franklin explains:

> "Currently North America is second in vehicle production with 30% share behind Europe's 36%. In 2002, Europe will still have 36%, Asia will have 32% and North America will fall to 27%. It's not good enough to be the number one supplier in the third largest market."

An example Franklin likes to cite internally is Dana's structural business. Dana is the largest structural supplier in the U.S., but globally, Bentler is the largest supplier with Dana second. When Thyssen and Krupp-Hoesch merge they will jump to number one leaving Dana the third largest supplier, a position Dana does not like to be in.

Dana also has an interesting visual way to measure global growth and remind customers what Dana is capable of globally. For each customer, it has a slide with Dana core products on the vertical axis, customer locations on the horizontal axis and each square either red, yellow or green (if a customer does not have a need for axles in Malaysia, for instance, this square would be left blank). If Dana currently has the business in that region for a specific product, the box is green. If there are discussions for Dana to gain this business, the box is yellow. If Dana does not supply the product, but could, the box is red. This is used for customer presentations, but is also a novel way to measure globalization growth internally. Obviously, Dana would like all the boxes to be green.

[9] Most information in this section comes from interviews with Dana executives.

Modes of Growth[10]

For Dana, there is no single way to grow. The firm's plan is to grow one-third by acquisition and two-thirds from internal growth. Dana would prefer most to grow globally with their existing customers. This entails setting-up operations as the customer sets-up operations. This is the preferred because it allows Dana to strengthen its position with the OEM and there is less time needed to integrate an acquisition or joint venture. There is a fair amount of capital involved, but it is all under Dana control.

Acquisition is the second choice for growth, according to Gus Franklin, Vice President - International. Dana looks for either market access or technology when evaluating acquisitions. One positive of acquisitions is that the target has fully operational facilities already supplying customers. Moreover, many smaller firms want to be acquired by Dana rather than some of its competitors. This does make the process easier. The negatives of acquisitions include the risk of overpaying for the assets and the necessary integration of the operations with Dana's. Less productive firms take management time, computer costs and extra travel.[11] For a firm that prides itself on "Dana Style," integration can be an extensive process (explained in more detail in Acquisition Integration section).

Next on the list is taking an OEM out of their business - taking over production currently done by the OEM. Risks here include a shorter product life cycle and possible union backlash. There are only certain parts of the world will this is a potential dominant strategy. In the past year, Dana made headlines as Chrysler UAW workers went on strike because of plans to outsource driveshafts to the supplier. Currently, no Dana facility is unionized and it appears they management would like to keep it that way.

Joint ventures are last on the list of preferred modes of growth. The Toledo-based company does not like to give up control to outsiders. Although it is not the preferred mode of growth, Dana still does engage in a great deal of joint ventures. Many markets require a local partner, but even though it is not the preferred method of growth, it can often be the best way to learn about new markets.

Typically, Dana has preferred to place manufacturing plants near customers, but it is currently rethinking that strategy. Management is investigating the idea of "strategic greenfield" sites in certain growth areas. One idea under consideration is to set up a plant site for a core product in China and use it to serve many customers, possibly to export to other countries. This is an idea that was gleaned from Eaton, one of the most recent Dana acquisitions. Eaton had a great deal of success with two 100% export facilities.

Acquisition Integration[12]

Although it is not the preferred mode of growth, acquisitions have been the norm for Dana, not the exception. This presents massive challenges for a company that has

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[10] Most information in this section comes from interviews with Dana executives.
[11] Parolini, Donna, "The Cost of Doing Business," Automotive Industries, May, 1997.
[12] Most information in this section came from interviews with executives from Dana.

multiple product lines across multiple customers. From 1993 - 1997, Dana acquired 30 companies, twenty-four of which were based outside the U.S.[13] Dana utilizes several methods of integration to introduce all levels of employees to Dana and its style of doing business. Once a business has been acquired, the product manager and SBU leader immediately welcome the employees to Dana through a personal visit. To reinforce this, the Chairman visits each new facility within the first year (he visits every Dana facility every year). The focus is put on education and employee involvement - part of the Dana Style. Involvement can be difficult for employees who have worked under a typical command and control structure, but Dana's experience has been that once employees are exposed to teams and employee involvement, they take to it quickly. In 1996, Dana's 45,500 employees generated 666,120 suggestions. The suggestion system is an idea the Morcott "stole" from the Japanese in the 1980's[14]. The real challenge is middle management, and that's where Dana spends the bulk of the time and effort.

One of Dana's principles is to promote from within. Sixty-six percent of Dana managers are promoted off the shop floor.[15] Because this is a strong belief, Dana rarely replaces the top management of an acquisition. Franklin explains:

> "We promote from witfun so we have to give them a chance. If we immediately replace a plant manager with one of our own, then we are saying that we don't think they can handle it. Furthermore, we are telling the plant manager's direct reports that we think they can't handle the job either."

This policy is also embraced out of necessity. Dana is growing so fast that they don't have all the personnel available to replace a recently acquire target.

The top managers of an acquisition may retain their position, but they are immediately exposed to the Dana Style. These managers must immediately conform to the management process. This includes regional meetings, management meetings, Dana University, thirteen-month rolling forecasts and the annual review and planning session known as "Hell Week." Technology also plays a key role in acquisition integration. The month-end close takes place globally in three and a half days, and it has taken every acquisition no longer than three months to meet this tight schedule. Recently, it was decided that every business must use SAP, Baan or Oracle. While this is not complete integration, these systems are capable of communicating. Dana also has an internal email system as well as an Intranet for company communications.

Once the newly acquired management has been exposed to the technology, financial controls, strategic planning process and the Dana Style, a determination can be made if the individual managers are qualified to remain with Dana. Franklin asserts this process takes anywhere from twelve to twenty-four months. Some are let go and others leave for other opportunities. The majority remain and seem to excel under the new management style.

[13] Smith, David C, "Global Punch," Ward's Auto World. May 1997.
[14] Teitelbaum, Richard, "How to Harness Grey Matter," Fortune. June 9, 1997.
[15] Gersten, Alan, "Bluegrass Meets Kabuki," Journal of Commerce. September 10, 1997.

To further integration, Dana is now utilizing cross-regional rotations for key positions. Traditionally, Dana stressed cross-functional skills for promotion. Now, the Global Resource Management Program, led by Dana's President Joe Magliochetti and four other top executives looks at all key openings on a global basis. The key positions include general management, plant management and controllers. For the next level of positions, mainly functional roles, a regional council reviews all open positions in a certain function for each of the four regions. Each management position, roughly 750 positions globally, has a list of three people who are potentials to take over each specific job. This entire system is reviewed annually for improvement. This process enables managers to gain many functional skills as well as many cultural skills. It also brings stability to the management succession process at all levels.

Joint Ventures[16]

While joint ventures are a risky proposition to Dana, they are still heavily used. In fact, CFO Jack Simpson states that joint ventures are the best strategy to enter Asia. With most Asian customers, a local partner is needed to help navigate the local Asian business cultures. Dana is very selective when approaching potential JV partners. Partners must have compatible goals, sound financial base and strengths that can be leveraged, such as market access or low-cost manufacturing capabilities. Dana wants a majority ownership, but will accept a minority stake if they can gain a majority share in the future. It appears as though Dana would eventually like to take over all successful joint ventures. In March of this year, Dana announced the acquisition of full-ownership of a joint venture, SIMESC-Parish, its Brazilian joint venture in structural products.

The structure of every joint venture is different according to Nitsch. It does not necessarily rest on who owns 51%. Case in point is one joint venture in Venezuela. Dana has a minority stake but the partner very much enjoys the benefits of being affiliated with the global powerhouse. Managers are sent on a regular basis to Dana University and all the employees wear Dana badges. Contrast this to a JV in Mexico in which Dana does have a majority stake. The relationship is described as arm's length and there is less integration. "Every venture has to be managed differently,"says Nitsch.

Partners are also selected only if they have a long-term view of the market and emphasize value. Partners must also share Dana's core beliefs - empowerment, openness and ethical behavior. Dana management is not afraid to end a joint venture if these principles are violated. In November of 1997, Dana sold its 49% stake in the Korea Spice Corp. to its Korean partner. This joint venture was started over twenty years ago, but the Korean government in the early 1990's changed the partner - a "shotgun wedding," per Simpson. The new partner, Sung Shin Cement Industrial Co., Ltd., seemed to be operating in good faith and Dana was satisfied, but for reasons unknown to the public, Dana decided to abandon this JV in the lucrative Korean market. This does not mean that Dana has abandoned Korea. It still has its Dana Korea operation, but it

[16] Most information in this section came from CFO Jack Simpson's presentation at the University of Michigan Business School Asian Business Conference on January 23, 1998.
[17] "Dana Announces Acquisition of Brazilian Affiliate", press release, March 3, 1998.

will grow conservatively. As an aside, Simpson was not very upset at this divestiture. Dana recognized an $18 million after-tax profit from this divestiture, which occurred one week before the currency crisis hit Korea.

Financial Goals and Performance

Dana's overall financial performance has been impressive, and its goals are even more so. ROE is expected to be 20%. Sales revenue is expected to grow at a rate of 10% per annum (2/3 from acquisition and 1/3 from internal growth). Five percent is the return on sales target. The capital structure target is 40% debt and 60% equity. Working capital is targeted at 17.5% of sales and gross margins should grow at a rate of a half of a percentage point per year. In support of these goals, international operations are expected to reap 6% return on sales and a 17% RONA (return on net assets).

Measurements are key to Dana's success, but those measurements do not include EVA. However, CFO Simpson does believe in MVA (Market Value Added) and DVA - Dana Value Added. Over the past few years, Dana's stock price has steady increased, most notably in the past year, increasing MVA. DVA - an internal benchmark measurement consisting of adding debt and equity and multiplying the total by the cost of capital hurdle rate (12% for Dana) - has been consistently surpassed by Dana over the past few years (see Appendix 5).

All the Financials indicators do not point in a positive direction, however. The consolidated financials are impressive, including over 4% ROS and substantial revenue and profit growth year over year. By breaking out the regional numbers, a different story unfolds. In 1997, operating income for North America was 9.2% of sales. European operations only managed 2.4% while the rest of international operations garnered 7%. Return on assets had similar numbers. Simpson does not like these numbers and wants them to improve.

Dana has publicly stated that divisions that underperform, "boat anchors" as Simpson calls them, will be sold off. This divestiture strategy, over $900 million's worth in 1997, has helped fund the $1.3 billion in acquisitions in 1997 besides removing some under-performing divisions from the financial statements. Karl Nitsch, the new President of Dana Europe credits his European predecessor, Gus Franklin with improving the performance of European operations.

> "Return on sales almost doubled from last year due to Gus. Dana Europe also went from 65% sales of core products to 99% today."

Dana was also able to close a money-losing plant in France, after a long battle with French labor unions and the government. Nitsch states that the consolidation in Europe will continue.

Most information for this section came from interviews with Dana executives.

Emerging Markets

Management knows that emerging markets, especially Asia and South America, present incredible opportunities for growth. For Asia, Dana believes that the time is now. Asia has a growing population base, vast geographic size, growing GDP and is still early in vehicle market development.[20] Thailand is #3 in light truck production and #2 in 1-ton truck production - a great opportunity for Dana because of their experience with light trucks in the US. Despite these trends, the auto supplier will not rush in. In fact, it has not rushed in, and therefore, is not feeling any major effects from the currency crisis. Asia represents a long-term opportunity. [I] Case in point is China. One executive asserted that no one is making money in China. Dana has several facilities in China, but due to joint venture arrangements, there is only $20 million of Dana capital invested in China. This is changing, however, with the announcement that Dana will be building a new axle factory in the Fujian Province of China and the strategy that has seen revenues grow about 20% a year for the past few years.[22]

A major reason for Dana's conservative attitude may stem from CFO Jack Simpson's experiences in Southeast Asia. Besides being a veteran with a substantial tour of duty in SE Asia, Simpson was also in charge of Asian operations in the 1980's. He recalled a story when he was having dinner in Indonesia in the 1980's. Dana had an axle plant there and was feeling the effects of competition. He overheard two men at the next table talking about Dana. The men stated that they would do anything to keep Dana out of Indonesia, even sell their own axles at below cost. "We got our butts kicked" Simpson states emphatically. Simpson believes one major reason for Dana's failure in Indonesia was sending American managers to operate a business in a country where the managers had no idea how to manage in such a different culture. "A good leader will work within the environment and understand the culture and language," sums up Simpson.

South America is an area in which Dana is investing heavily and gaining profits. Morcott asserts that automobile manufacturers have announced $19 billion in investments in South America over the next five years and expects suppliers to have to invest a similar number.[23] "Brazil is the most exciting auto market in the world," stated Chrysler's CEO Robert Eaton. Dana's revenues in Brazil, the largest South American market, totaled $550 million in 1996. Investments for 1997 were expected to be $150 million. According to Simpson, net margins are the best in South America compared to any other international regions, mainly due to tax issues. Mercosor - the trade group consisting of Brazil, Argentina, Uruguay, Paraguay, Chile and Bolivia - is comprised of 225 million

[19] Most information for this section came from interviews with Dana executives.
[20] Presentation by Jack Simpson at the University of Michigan Business School Asian Business Conference on January 23, 1998.
[21] Gersten, Alan, "US Firms in Asia Bet on Long Term," Journal of Commerce, December 10, 1997.
[22] "US Firm to Build Axle Factory in China's Fujian Province," Asia Pulse, November 6, 1997.
[23] Teresko, 1998.
[24] Lima, 1998.
[25] "Dana Corp. to Expand in Brazil," The Plain Dealer, February 23, 1997.

consumers and has the "potential to be the third largest car market in the behind Japan and the U.S. by the end of the decade."[26] Brazil also presents Dana with a tremendous challenge in consolidation. The consulting firm AT Kearney states that Brazil has 1200 auto suppliers and expects the number to drop to 500 by 2005.[27]

Perhaps the best example of Dana's success as a system supplier is the rolling chassis concept. Essentially, Dana provides the frame and the entire undercarriage, wheels etc; the chassis is then rolled into the OEM's facility for final assembly. The 1999 Dodge Dakota produced in Brazil will be made in this fashion, giving Dana $3500 revenue per vehicle. There is more risk financially for Dana, but a much greater reward as well.

Eastern Europe also presents opportunities for Dana. Nitsch states that Dana's strategy will be to follow the Korean automakers into Eastern Europe and then into Western Europe. "The Koreans are very aggressive and many European OEM's are very concerned," states Nitsch. Hyundai Motor, Daewoo Motor and Kia Motors will each be able to produce in excess of two million cars worldwide a year. Daewoo is especially strong in Europe, as it has opened plants in Poland, Czech Republic and Romania. It also has a sales network in nine countries in all of Europe.[28]

Competitors

There is no one competitor that Dana can identify as their major adversary. What they can point to is any number of different competitors in any one region of the world making any number of products. In Europe for instance, GKN has a vast majority of the halfshaft market and Bentler is a major player in the European structural market, but they are just beginning to enter the North American market. This makes for a very complex competitive landscape.

The competitive landscape is consolidating, however, with increased globalization and systems integration. Each systems integrator takes a different perspective from which to base their competitive maneuvers. For example, Bosch is becoming a systems supplier using its traditional strength of brakes. Dana comes to market with halfshafts, axles, driveshafts or frames.

From a global perspective, some that believe that the American suppliers, including Dana, are at the forefront of the auto supply industry. "The European supply base lags at least 10 years behind the North American Consolidation," says one auto consultant.[29] David Cole of the University of Michigan's Office for the Study of Automotive Transportation agrees, "The U.S. companies are actually more successful internationally."[30] Firms like Siemens, ZF and GKN must decide what strategy to follow.

[26] Lima, 1998.
[27] Sedgwick, David, "Proving Ground: Brazil Offers Makers and Suppliers a Place for Beta Testing Manufacturing Ideas", Automotive News. August 4, 1997.
[28] Teresko, 1998.
[29] Phelan, Mark, "Sprechen sie megasupplier? Europe's Tier l's Struggle with Demands for Systems, Modules and Global Manufacturing," Automotive Industries. June 1997.
[30] Keenan, Tim, "Setting the Global Pace," Ward's Auto World. May 1997.

A member of a European think tank believes that American suppliers are growing while catering to JIT and systems needs while the Europeans are more familiar with technologies and may prefer to grow "sticking to their technological roots."[31] One auto executive points to Asia as the "next competitive battleground" [2] for the supply base.

One thing is for sure, the competition will only get more fierce.

Future Challenges

Dana management recognizes many challenges as auto supplier grows. One issue that many in the auto industry are concerned about is over-capacity. Peter Hellman, President and COO of TRW, believes that globalization for growth is leading to a crisis of over-capacity.[33] As OEM's grow around the world, some plants that will not operate at capacity, or fail. Therefore, there will be suppliers that have excess capacity. This happened to Chrysler and Dana in Austria. The Grand Cherokee plant's production is down 40%. Dana responded by sending parts from facilities in the UK and Brazil to be assembled in the Austrian Dana axle plant and then the parts are exported to other locations. This is a novel approach, but Dana management knows this solution can't be used everywhere. Dana contends it will continue to grow conservatively. It also means picking winners in each country. As an example, Dana managers are aware of the many OEMs entering China, but believe that all of them cannot be successful.

A second challenge is growth in emerging economies. Franklin sees high risk and some high rewards. One OEM wants Dana to be its axle supplier in several locations, including Indonesia. The overall contract is very lucrative, but the prospect of Indonesia gives management pause.

Continuing to develop people will be a challenge to Dana. With so much growth, it is difficult to fill all those positions with properly trained people. Changing mindsets is the other part of the equation. Top management does recognize that many managers have a "Midwestern mindset" in a global industry. Only 20% of the top twenty Dana managers were born outside of the U.S.

Dana's Future Strategies

Many in the auto industry, including Dana management, agree that the trends of consolidation, globalization and systems integration will continue. Therefore it is no surprise that Dana plans to continue with its "Beyond 2000" strategy. What may change beyond the year 2000 are the targets of diversification. Some executives see the percentage of sales outside the U.S. growing to as much as 70%. As Karl Nitsch explains:

[31] Phelan, 1998.
[32] Keenan, 1998.
[33] Gardner, Greg and Tom Murphy, "The Risk of Following Your Customers Around the Globe," Ward's Auto World. September 1997.

> "Coca-Cola has more sales outside of the U.S. than inside, and it makes sense. There are many more people living outside the U.S. There is more vehicle production outside of the U.S."

Gus Franklin sees bigger acquisitions on the horizon. It is only inevitable as most suppliers are growing. Eaton is Dana's largest acquisition to date, but Franklin sees the dollar values growing.

The biggest change in Dana's strategy may come in the are of technology. Many customers are looking for more technology from their suppliers, especially Dana. This means many new investments. One is the new R&D center being built in Japan. This center will be dedicated to the Asian based OEMs. Another is the new Customer Support Center to be built in Germany. Both are responses to customer requests for local technical support. Management knows that if it wants to be a true systems supplier, then it must be able to develop new products. Moreover, at least in Europe, there is a recognized need to be more in passenger cars and not just trucks. This also requires technology.

Besides customers demanding the increase investment in technology, Dana received a "kick in the gut" when it was rated last in technology in its industry by Fortune magazine last year. Dana management didn't fight this but responded to it. In addition to these two new technology centers, Dana has also acquired Thermoplast to get into plastics. Plastic materials are replacing many engine parts and are generally lighter than most metals.

Conclusions

Dana Corp. is clearly a respected and feared competitor in the auto supply market. Until this point, the conservative mode of expansion has served Dana well. Growth is a mainstay, not just a short-term strategy. Continued operational excellence and improvement allows Dana to fund future acquisitions and growth. The internal global support structures including Dana University and the Dana Style keep new ideas flowing and workforce energized. The SBU structure more closely aligns the far-flung operations with the proper market segments and customers. These are all reasons why the stock market and many acquisition targets like Dana. While the global market is changing, so is Dana, and for the better.

While Dana continues to change and improve, some internal challenges remain that could preclude continued successful global growth in the years to come. One is the Dana brand name and all its product brand names. There are many brand names within Dana. Several customers know Spicer or Wix, but not necessarily Dana. Management realizes this, but will it change fast enough? Karl Nitsch commented that Dana has attended an industrial products exposition for many years, and for the first time had all its products shown under the Dana symbol this past year. This is a small step in a long journey to gain brand recognition in a rapidly globalizing industry. Moreover, Dana is just now looking at the area of globalizing their press releases.

Another area of concern is the make-up of the management team and its global focus. One magazine called Dana headquarters "as American as it gets"[34] when commenting on the facilities. To date, only 20% of the top twenty executives were bora outside of the U.S. Dana does make great strides in getting its executives international experience - Gus Franklin spent several years in Europe and Jack Simpson has many years experience in Asia - to name a few, but is it enough? How much more success might Dana have in Asia if it did not need some of its joint venture partners to navigate the local Asian cultures? Certainly with the global rotations of mid-level managers, more leaders with more international roots and/or experience will rise into the ranks of top management, but will it be fast enough?

A final area to be addressed is product technology. Dana recognizes that it is not widely respected for its technology and is making improvements. Management recognizes the need to have local engineering and R&D support for their customers and is acting on it. Dana is also acquiring firms with different technologies including plastics to be better prepared for new technology changes. This is only the first step, though. The key to this strategy is technology integration. Will the new R&D center in Japan interface and be able to share information with R&D in Toledo? Will Dana be able to develop and transfer knowledge for passenger cars? Will Dana be able to integrate new materials, such as plastics, into the core products that comprise so much of Dana's revenues?

Dana's success comes from a number of attributes, including a conservative approach to expansion. The same approach that has gained Dana success to date may cause problems. Will the issues of technology, international managers and global brand image be improved fast enough for Dana to maintain its dominant position in the market? Dana has found a way to grow and improve so far; will it be able to continue to change fast enough?

Smith, 1997.

Dana Corp. - Growth Through Globalization

Summary of Operations	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Net Sales	4180	4896	4857	4948	4385	4863	5457	6607	7596	7686	8291
Cost of Sales	3480	4133	4104	4129	3841	4282	4688	5631	6469	6550	7212
Income (Loss)	203	238	217	187	-24	48	224	380	490	452	619
Net Income	142	162	132	76	13	56	129	228	288	306	369
Capital Expenditures	164	222	223	226	148	111	176	278	338	284	365
Financial Position											
Current Assets	1516	1570	1498	1489	1379	1552	1779	1989	2101	2366	2731
Current Liabilities	1032	1060	990	1002	996	990	1209	1456	1628	1477	1827
Current Ratio	1.5	1.5	1.5	1.5	1.4	1.6	1.5	1.4	1.3	1.6	1.5
Working Capital	484	509	508	487	423	562	569	533	533	889	905
Total Assets	4914	4786	5225	4513	4179	4343	4632	5124	5714	6160	7119
Long-Term Debt	1322	1324	1522	1486	1541	1467	1207	1187	1315	168	2178
Total Shareholders Equity	865	960	1020	1049	989	707	801	940	1165	1429	1701
Common Share Data											
Average # of Shares	87430	81353	81658	81954	82171	87792	92533	98689	101297	101800	104340
Book Value per Share	10.64	11.81	12.47	12.79	12.03	7.7	8.14	9.51	11.48	13.87	16.18
EPS - Basic	1.62	1.99	1.62	0.92	0.16	0.64	1.39	2.31	2.84	3.01	3.54
EPS - Diluted	1.56	1.91	1.56	0.92	0.16	0.63	1.38	2.3	2.83	2.99	3.49
Stock Price - High	27.13	20.25	21.44	19.06	18.25	24.13	30.13	30.69	32.63	35.5	54.38
Stock Price - **Low**	13.75	16.25	16.5	9.94	12.31	13.38	22	19.63	21.38	27.25	30.63
Stock Price - Close	17.06	19.44	17.31	14.94	13.88	23.5	29.94	23.5	29.25	32.63	47.5

Appendix B (adapted from www.dana.com)

STRATEGIC BUSINESS UNITS

Automotive Components Group
Dana's Automotive Components Group serves the global passenger car and light truck markets. It combines product strength – including axles, driveshafts, and structural components – with the synergies provided by its light vehicle modular systems unit.

Heavy Truck Components Group
The Heavy Truck Components Group serves the global market for Class 6, 7, and 8 trucks with heavy axle and brake products, drivetrain components, and heavy systems modular assemblies. The group was recently bolstered by the acquisition of Eaton Corporation's global heavy axle and brake operations.

Off-Highway Components Group
The Off-Highway Components Group serves more than 700 global customers in eight primary markets. With the 1997 acquisition of Clark-Hurth Components, and the recent integration of Dana's Gresen Hydraulics operations, the off-highway group's key components are off-highway axles, powershift transmissions, transaxles, electronic controls, and hydraulic valves and pumps.

Engine Components Group
The Engine Components Group manufactures components and systems – including engine, sealing, and filtration products – for a broad range of markets and applications. Dana's Engine Components Group is the only single supplier that can approach global engine manufacturers and offer to seal the entire engine with its own products.

Industrial Components Group
Customer and product diversity is the hallmark of the Industrial Components Group. With more than 9,600 customers in 56 nations, the group has a wide base for its industrial clutches and brakes, precision motors and controls, and industrial hose and fluid connectors.

Dana Commercial Credit
A winner of the 1996 Malcolm Baldrige National Quality Award, Dana Commercial Credit (DCC) is Dana's leasing services operation. DCC serves its selected global customers with products including Capital Markets, Dealer Products, Diversified Capital, Asset Management, Shannon Properties, and Technology Management.

Appendix 3 (adapted from www.dana.com)

BRANDS

Boston ® Industrial Hoses and Rubber Products

Chelsea ® Power Take-Offs

Gresen ® Pumps, Control Valves, and Filters

Parish ® Frames, Side Rails, Cradles, Crossmembers, and Support Arms

Perfect Circle ® Piston Rings, Piston Pins, Camshafts, Cylinder Sleeves, Valve Seals, and Steering and Suspension Components

Spicer ® Axles, Transaxles, Driveshafts, Cardan and Constant Velocity Joints, Transfer Cases, and Transmissions

Victor Reinz ® Gaskets, Sealing Products, Heat Shields, and Oil Seals

Warner Electric ® Electric and Mechanical Clutches and Brakes, Industrial and Precision Ball Bearing Screws, Linear Bearings and Shafting, Linear Actuators and Sensors, Servos, Step Motors, and Voltage Controls

Weatherhead ® Brass and Steel Fittings, Couplings, and Industrial Hose Products

Wix ® Oil, Air, and Fuel Filters

Dana Corp. - Growth Through Globalization

Appendix 4 (adapted from www.dana.com)

Beyond 2000
Our Commitment to Growth

1. The Dana Style Will Be Fully Implemented Throughout Dana's Globally Integrated Organization.
   - Dana people are our most important asset.
   - Dana's growth is dependent on People Finding a Better Way to improve continuously through concentration on-

   -idea generation (minimum of two ideas per person per month, 80% implemented),
   -education (minimum of 40 hours per person per year), and
   -cooperation among Dana people globally.

2. Dana Will Be The Global Systems and Component Supplier To The Customers We Serve.
   - Dana will become the global leader by-

   -exceeding customers' expectations in everything we do,
   -focusing on being the best in quality, service and technology in each of our products, and
   -emphasizing cost effective core-products, systems and services.

   - Dana will continue to provide innovative leasing services.

3. Dana Will Obtain 50% Of Sales From Highway Vehicle OEM Customers And 50% From Distribution, Off-Highway And Industrial Markets.
   - Two-thirds of the growth will come from our expanding markets, increased market penetration and new product development.
   - One-third of the growth will come through acquisitions.

4. Dana Will Obtain 50% Of Our Total Sales Outside The United States.
   - Dana will continue to expand globally by-

   -supporting our customers' global activities with regional facilities,
   -emphasizing export activities, and
   -focusing on growth sectors of international markets.

5. Dana Will Be A Growth Company Providing Shareholders With Superior Investment

   - Through the accomplishment of the first four objectives, Dana will be positioned for continuous, profitable growth.
   - Dana's key financial goals are-

     -Sales growth greater than 10% per year
     -Return on Sales greater than 5% after-tax
     -Return on Shareholders' Equity greater than 20% after-tax

Appendix 5 Dana Value Added (adapted from a Dana presentation)